

THE RORSCHACH

ODTÜ KÜTÜPHANESİ
METU LIBRARY

THE RORSCHACH

A Comprehensive System

Volume 1

Basic Foundations and Principles of Interpretation

FOURTH EDITION

JOHN E. EXNER JR., PH.D.



John Wiley & Sons, Inc.

This book is printed on acid-free paper. ©

Copyright © 1997, 2003 by John E. Exner Jr., Ph.D. All rights reserved.

Published by John Wiley & Sons, Inc., Hoboken, New Jersey.
Published simultaneously in Canada.

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning, or otherwise, except as permitted under Section 107 or 108 of the 1976 United States Copyright Act, without the prior written permission of the author. Requests for permission should be addressed to the Permissions Department, Rorschach Workshops, PO Box 9010, Asheville, NC 28815 (828) 298-7200, fax (828) 298-7283.

Limit of Liability/Disclaimer of Warranty: While the publisher and author have used their best efforts in preparing this book, they make no representations or warranties with respect to the accuracy or completeness of the contents of this book and specifically disclaim any implied warranties of merchantability or fitness for a particular purpose. No warranty may be created or extended by sales representatives or written sales materials. The advice and strategies contained herein may not be suitable for your situation. You should consult with a professional where appropriate. Neither the publisher nor author shall be liable for any loss of profit or any other commercial damages, including but not limited to special, incidental, consequential, or other damages.

This publication is designed to provide accurate and authoritative information in regard to the subject matter covered. It is sold with the understanding that the publisher is not engaged in rendering professional services. If legal, accounting, medical, psychological or any other expert assistance is required, the services of a competent professional person should be sought.

Designations used by companies to distinguish their products are often claimed as trademarks. In all instances where John Wiley & Sons, Inc. is aware of a claim, the product names appear in initial capital or all capital letters. Readers, however, should contact the appropriate companies for more complete information regarding trademarks and registration.

For general information on our other products and services please contact our Customer Care Department within the U.S. at (800) 762-2974, outside the United States at (317) 572-3993 or fax (317) 572-4002.

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books.

Portions of Chapters 4 through 10 and the Appendix are reproduced by permission from: Exner, J. E. (2001). *A Rorschach Workbook for the Comprehensive System* (5th ed.). Asheville, NC: Rorschach Workshops.

Portions of Chapters 14 through 21 are reproduced by permission from: Exner, J. E. (2000). *A Primer for Rorschach Interpretation*. Asheville, NC: Rorschach Workshops.

Reproduction of the Rorschach Location Sheets for each of the protocols is by permission of Hans Huber Publishers, Bern, Switzerland.

Reproduction of Tables 8.4 and 10.2 showing weighted and estimated values for organizing activity is from Beck, S. J., Beck, A. G., Levitt, E. E., and Molish, H. B. *Rorschach's Test. I: Basic Processes* by permission of Grune Stratton.

Library of Congress Cataloging-in-Publication Data:

Exner, John E.

The Rorschach : a comprehensive system / John E. Exner.—4th ed.
p. cm.

Includes bibliographical references and index.

Contents: v.1. Basic foundations and principles of interpretation.

ISBN 0-471-38672-3 (v. 1 : cloth : alk. paper)

1. Rorschach Test. I. Title.

BF698.8.R5 E87 2003

155.2'842—dc21

Printed in the United States of America.

10 9 8 7 6 5 4 3



METU LIBRARY



255070201060704906

BF698.8.R5

E871

v.1

BIT 0210.2007 ✓

To Doris

When we were young and very new
I pledged my deepest love to you,
And as we've grown along the way
That love grows deeper every day
JEE (1978)

Now as leaves begin to turn
And autumn knocks upon our door,
I'll say it once again to you,
I pledge my deepest love once more
JEE (1991)

Long ago I pledged my troth to you
While holding your hand in mine,
And through the years I always knew
Our love will last till the end of time
JEE (2002)

Contents

Preface xiii

PART ONE HISTORY AND DEVELOPMENT OF THE RORSCHACH 1

- 1 | Introduction 3**
 - Basic Prerequisites 3
 - The Utility of the Rorschach 4
 - The Origins of the Test—Rorschach's Work 5
 - References 11
- 2 | Development of the Test: The Rorschach Systems 12**
 - The Concept of Projection and Projective Techniques 19
 - Intersystem Differences 21
 - The Comprehensive System 22
 - References 26
- 3 | Controversy, Criticism, and Decisions 28**
 - Core Elements of the Controversy 28
 - Early Criticisms of the Rorschach 30
 - Newer Elements in the Controversy 32
 - Contemporary Criticism of the Rorschach 34
 - An Overview 36
 - Decisions Concerning the Use of the Rorschach 37
 - The Rorschach and the Test Battery 38
 - References 39

PART TWO ADMINISTRATION AND SCORING THE RORSCHACH 43

- 4 | Rorschach Administration: Decisions and Procedures 45**
 - The Rorschach and the Test Battery 46
 - Procedures of Administration 47
 - The Problem of Brief Protocols 53
 - The Problem of Lengthy Records 55
 - Recording the Responses 56
 - The Inquiry 58

	The Location Sheet	64
	Testing of Limits	65
	Summary	65
	References	65
5	Scoring: The Rorschach Language	68
	References	73
6	Location and Developmental Quality: Coding and Criteria	76
	The W Response (Wholes)	76
	The D Response (Common Details)	77
	The Dd Response (Unusual Details)	78
	The S Response (White Space Details)	79
	Location Coding for Multiple D Areas	79
	Developmental Quality (DQ)	79
	Summary	83
	References	83
7	Determinants: Coding and Criteria	85
	The Form Determinant (<i>F</i>)	86
	The Movement Determinants	89
	Active-Passive Superscripts (^a , ^v)	91
	Chromatic Color Determinants	95
	The Achromatic Color Determinants	101
	The Shading Determinants	104
	The Texture Determinant	105
	The Shading-Dimensionality Determinant (Vista)	107
	The Diffuse Shading Determinant	110
	The Form Dimension Response (<i>FD</i>)	111
	Pair and Reflection Responses	112
	The Blend Response (.)	114
	Interscorer Agreement	117
	Summary	118
	References	118
8	Form Quality, Content, Populars, and Organizational Activity	120
	Form Quality	120
	Content	125
	Popular Responses (P)	129
	Organizational Activity	131
	References	133
9	Special Scores	134
	Unusual Verbalizations	134
	Level 1–Level 2 Differentiation	135

	Deviant Verbalizations (DV & DR)	135
	Inappropriate Combinations	138
	Perseveration (PSV)	140
	Special Content Characteristics	141
	Human Representational Responses	143
	Personalized Answers	144
	Special Color Phenomena	144
	Multiple Special Scores	145
	References	146
10	The Structural Summary	147
	Sequence of Scores	147
	The Structural Summary—Upper Section	147
	The Structural Summary—Lower Section	151
	The Ideation Section	153
	The Affect Section	153
	The Mediation Section	153
	The Processing Section	154
	The Interpersonal Section	155
	The Self-Perception Section	155
	Special Indices	155
 PART THREE THE NATURE OF THE TEST 159		
11	The Response Process	161
	Rorschach's Concept of the Method	161
	The Rorschach as a Decision-Making Task	162
	Decision Choices	163
	The Range of Potential Responses	164
	The Response Process	167
	The Input Process	167
	The Classification (Identification) Process	169
	Ranking and Discarding Potential Answers	173
	Styles and Traits in Selecting Responses	176
	Psychological States and Response Selection	182
	Projection and the Response Process	183
	Summary	185
	References	185
12	Normative Data	189
	The Adult Nonpatient Sample	189
	Design for Collecting Nonpatient Data	190
	Characteristics of the Nonpatient Sample	190
	Table 12.2 Data	191

On the Integrity of the Sample	196
Design Used for the New Sample	210
References	214

PART FOUR INTERPRETATION 215

13	General Guidelines Regarding Interpretation	217
	Basic Prerequisites	217
	Some Procedural Guidelines for Interpretation	218
	The Deviation Principle	219
	Challenging the Integrity of the Data	220
	Interpreting by Clusters	223
	Proceeding Systematically	224
	Preliminary Hypotheses as Building Blocks	224
	The Cluster Search Order	227
	The Integration of Findings	229
14	Controls and Stress Tolerance	231
	The Concept of Control	231
	Rorschach Assumptions Related to Capacity for Control	232
	Rorschach Variables Related to Controls	233
	Presearch Issues	234
	Interpretive Routine	236
	Summarizing Findings Concerning Controls	243
	Research and Postulates Regarding Control-Related Variables	244
	References	256
15	Situationally Related Stress	260
	Rorschach Data Related to Situational Stress	260
	Basic Hypotheses When D Scores Differ	263
	Presearch Review of Scores	263
	Interpretive Routine	263
	Summarizing Findings Regarding Situational Stress	273
	Research and Postulates about the <i>m</i> and <i>Y</i> Variables	274
	References	278
16	Affect	280
	Rorschach Variables Related to Affect	280
	Interpretive Routine	283
	Summarizing Findings Concerning Affect	308
	Research and Concepts Related to Affect Variables	310
	The Erlebnistypus (<i>EB</i>) Styles	314
	The Avoidant (High Lambda) Style	318
	The Affective Ratio (<i>Afr</i>)	320

	Chromatic Color Responses and <i>WSumC</i>	323
	<i>SumC'</i> : <i>WSumC</i>	326
	Color Projection (CP)	326
	Space Responses	326
	Blends	327
	Shading and Color Shading Blends	329
	References	330
17	Information Processing	335
	Rorschach Variables Related to Processing	336
	Interpretive Routine	339
	Summarizing Findings Regarding Processing	354
	Research and Concepts Related to Processing Variables	355
	References	362
18	Cognitive Mediation	364
	The Response Process and Mediation	364
	The Form Quality Table	364
	Rorschach Variables Related to Mediation	366
	Summarizing Findings about Mediation	385
	Research and Concepts Concerning Mediation Variables	385
	Rorschach's <i>F</i> +%	386
	Popular Responses	393
	References	394
19	Ideation	399
	Rorschach Variables Related to Ideation	399
	Interpretive Routine	401
	Integrating the Findings Regarding Cognitive Operations	424
	Research and Concepts Regarding Ideation Variables	427
	References	441
20	Self-Perception	445
	Rorschach Variables Related to Self-Perception	446
	Interpretive Routine	448
	Summarizing Findings	472
	Research and Concepts Concerning Self-Perception Variables	472
	Reflection Responses	472
	The Egocentricity Index	475
	Form Dimension Responses	478
	Anatomy and X-Ray Responses	480
	Morbid Content	481
	Human Content Responses	482
	Analysis of the Verbal Material	483
	References	485

21	Interpersonal Perception and Behavior	489
	Rorschach Variables Related to Interpersonal Perception	489
	Interpretive Routine	490
	Summarizing Findings	506
	Research and Concepts Related to Interpersonal Variables	507
	The CDI	507
	The a : p Ratio	508
	Food Responses and the a : p Ratio	509
	Human Content	510
	The GHR:PHR Relation	511
	Aggressive Movement	512
	Cooperative Movement	514
	Personal Responses	516
	Isolation Index	517
	References	519
22	The Complete Description	522
	The Suicide Constellation (S-CON)	523
	The Perceptual-Thinking Index (PTI)	524
	Building a Complete Description	526
	The Complete Description and Recommendations	538
	Case 14 Description and Recommendations	538
	Case 15 Description and Recommendations	553
	Case 16 Description and Recommendations	567
	Case 17 Description and Recommendations	581
	References	583
	Appendix The Form Quality Table	585
	Data Concerning Nonpatient Children and Adolescents	638
	Name Index	667
	Subject Index	675

Preface

If anyone present in 1970, during the assemblage of the first pieces of the Comprehensive System, had predicted that the project would continue into the next century, they would not have been taken seriously. At that time, we were confronted with relatively easy decisions concerning seating, instructions, and the basics of scoring, and the task ahead seemed relatively straightforward: Namely, to merge into a single format all of the empirically defensible features of other approaches. It was naively assumed that almost all of the elements necessary for the use and understanding of the test already existed. Thus, no one could have foreseen the extended research odyssey that has evolved. Even by the end of 1973, when the manuscript for the First Edition of this work was completed, naivete continued to exist. It was obvious that the issue of Special Scores was still to be resolved and that larger standardization samples of data would be necessary, but projects designed to accomplish these tasks were already underway. In reality, most of us believed that we had completed the bulk of the work necessary to achieve the goal of presenting the "best" of the Rorschach. As it turns out, the "best" was yet to come.

As new projects were completed, the data often raised more questions than were answered, thereby requiring the design of many more studies than were originally anticipated. The breadth of data that had accumulated by 1976 was much more extensive than could easily be scattered through a series of articles and a decision to create *Volume 2* was made. Although *Volume 2* did provide an

avenue through which to expand and clarify the basic work, focus on younger clients remained pitifully inadequate, and *Volume 3* was a natural consequence. Additions and changes to the Comprehensive System were so numerous between 1978 and 1985 that the original edition of *Volume 1* had little utility. The Second Edition was published in 1986, but research and additional data analyses provoked more changes and additions and the Second Edition also became woefully outdated.

A Second Edition of *Volume 2* was released in 1991, and the Third Edition of *Volume 1* followed in 1993. Collectively, they seemed to represent some sort of culmination in the development of the Comprehensive System. But, even then, the work was not finished, for the Rorschach has continued to pose many unanswered questions. The basics of the System have been in place for many years, and they have appeared to meet the primary objective for the project: Namely, to provide a standardized method of using the test which is easily taught, manifests a high interscorer reliability, and for which the interpretive premises will withstand validation demands. However, many elements of the test have continued to be studied. As a result, some features of the System have been modified, some have been discarded, and some continue to be investigated.

The accumulated developments that have occurred during the past decade argue for a new revision of the basic work concerning the System. In designing this revision, it has seemed reasonable to collapse what has been two works (*Volumes*

1 and 2), into a single text to expand the coverage of interpretation, and reserve the designation of *Volume 2* for a future work focusing on the interpretation of cases reflecting a broad span of issues.

This new revision of *Volume 1* is not a brief book, but the Rorschach is not a simple test. The term *Comprehensive* remains appropriate. The System does reflect the hard-won wisdoms of those who researched and developed the test long before this project was initiated, plus the new information that has unfolded through the work of many practitioners and researchers during the past three decades.

The early success of the project was due in no small part to the encouragement of four of the five Rorschach Systematizers, Samuel Beck, Marguerite Hertz, Bruno Klopfer, and Zygmunt Piotrowski. In some ways, the original idea for the project may have been stimulated by David Rapaport who, in 1954, cautioned me to know all of the Rorschach, but its actual inception was provoked by Bruno Klopfer and Samuel Beck, who viewed each other with very low regard. In 1967, they both endorsed a project to research the empirical sturdiness of their respective approaches to the test and, in 1968, the first of a series of investigations to address that issue began. By 1970, when the results clearly indicated that each of the approaches, including those of Hertz, Piotrowski, and Rapaport had considerable merit, but that all were also seriously flawed in one way or another, I proposed to Beck and Klopfer that some integration of approaches seemed to be the logical extension of the work. Neither was very pleased with the findings, nor the proposal, but they also were able to rise above their personal animosities and offer a cautious endorsement to the idea, as did Hertz and Piotrowski shortly thereafter. In retrospect, I doubt that any of the four believed in the project, but I do think that all four were intrigued with it.

As the project progressed, each showered me with suggestions, comments, and criticism, but beyond that, they all offered support and inspiration. The support came through their suggestions and comments. The inspiration was fomented by

their kind and generous encouragement, and most of all by their warm friendship. It served as a powerful motivation to persist at the task. In effect, they are the Godfathers and Godmother of the Comprehensive System. They have all passed on, but their legacy remains. Much of their work and many of their ideas are firmly embedded in the Comprehensive System.

Much of the later development of the Comprehensive System has been derived from the suggestions of practitioners and the efforts of a small army of researchers. Among the latter is a group who deserve special recognition. They have served on the staff of the Rorschach Research Foundation (Rorschach Workshops) for varying intervals as project directors and assistants with a seemingly tireless enthusiasm. Their efforts often went well beyond what might have been expected and their contributions have insured the continuing accumulation of new data that added enormously to the bank of information concerning the nature of the test and its interpretation. They have trained and/or supervised more than 800 examiners who have participated in more than 550 investigations. They include:

Gerald Albrecht	William Cooper
Doris Alinski	Terry Cross
Michael Allen	Robert Cummins
Francesca Antogninni	Mark Edwards
William Baker	Frederick Ehrlich
Miriam Ben Haim	Gail Famino
Jeffrey Berman	John Farber
Carol Bluth	Ronda Fein
Peter Brent	Gary Fireman
Evelyn Brister	Roy Fishman
Richard Bruckman	Jane Foreman
Edward Caraway	Benjamin Franklin
Eileen Carter	Dorothy Frankmann
Andrew Chu	Christy George
Michael Coleman	Katherine Gibbons
Susan Colligan	Nancy Goodman

Laura Gordon	Doris Price
Carolyn Hafez	Beth Raines
Nancy Haller	Virginia Reynolds
Doris Havermann	Felix Salomon
Dorothy Hejnski	Joseph Schumacher
Lisa Hillman	Whitford Schuyler
Sarah Hillman	Barbara Seruya
Milton Hussman	Jane Sherman
Geraldine Ingalls	Sherill Sigalow
Susan James	Kenneth Sloane
Marianne Johnston	Frederick Stanley
Lester Jones	Louise Stanton
Katsushige Kazaoka	Eva Stern
Mary Lou King	Sarah Sternklar
Richard Kloster	Robert Theall
Beth Kuhn-Clark	Vicki Thompson
Nancy Latimore	Peter Vagg
Carol Levantrosser	Alice Vieira
Arnold Lightner	Donald Viglione
Richard McCoy	Edward Walker
Denise McDonnahoo	Jane Wasley
Marianne McMannus	Richard Weigel
Louis Markowitz	Donna Wiener-Levy
Andrew Miller	Robert Wilke
Beatrice Mittman	Elizabeth Winter
Lynn Monahan	Leslie Winter
Ralph Nicholson	Helen Yaul
Michael O'Reilly	Tracy Zalis
Carmen Penzulotta	Nancy Zapolski
George Pickering	Mark Zimmerman

Our examiners have included many professional psychologists and psychology graduate students, but nearly half come from more varied backgrounds, ranging from a professional musician and a retired tailor to an extremely talented high school senior. Other examiners have included physicians, dentists, nurses, social workers, homemakers, and a few very adept secretaries who

learned that administering the Rorschach is almost as boring as typing a letter. The ability of these laypeople to learn to administer and score the test in a standardized format has been among the very reassuring aspects of the System.

The project has also included some very special people who deserve mention. They have served as core staff or in senior advisory roles. Joyce Wylie served as our project coordinator from 1969 to 1978, and without her persistence and organizing talents we might have faltered along the way. During the same period, Elaine Bryant was our overseer for laboratory experiments. She devised some remarkable innovations to improve on our designs. Antonnia Victoria Leura was our recruiter for nearly 10 years and during that time obtained more than 8,000 subjects for our various studies. I will never cease to be amazed at her ingenuity. Barbara Mason was also with us for more than a decade, serving as trainer, teacher, researcher, and clinician. Her versatility was continuously impressive.

George Armbruster and Eugene Thomas each served more than a decade as our research "purists." Both contributed much more than can be described in a few words and both epitomize the very best of psychology. John Roger Kline was our first computer consultant and despite knowing little about the Rorschach, he devised programs for storage and analysis that enabled us, for the first time, to address large chunks of data with an amazing ease. Joel Cohen replaced John, and was mainly responsible for a variety of sophisticated programs that broadened our capacity to store and analyze data. He and Howard McGuire were also responsible for the development of our computer interpretation assistance programs.

Ten people deserve particular recognition. They were involved in the terrible task of rescoring thousands of records each time some new change in the format occurred: Doris Alinski, Earl Bakeman, Eileen Carter, Ruth Cosgrove, Lisa Hillman, Nancy Latimore, Theresa Sabo, John Talkey, Eugene Thomas, and Edward

Walker. I appreciate their diligence and admire their frustration tolerance.

There are also many in the international community who have been extremely helpful in testing out the System, teaching it to their colleagues, and contributing significantly to our data base. They include Anne Andronikof (France), Bruno Zanchi (Italy), Leo Cohen (Netherlands), Noriko Nakamura and Toshiki Ogawa (Japan), and Vera Campo, Monserrat Ros Plana, and Conception Sendin (Spain). Their contributions reaffirm the fact that the test is universal and that people are people, no matter where they live.

Luis Murillo was an exceptional friend to Rorschach Workshops. He generously opened Stony Lodge Hospital to our efforts in 1970, and supported our research there for nearly 15 years. He is a superb colleague and a true model for psychiatry. Irving Weiner has also been a faithful friend, advisor, and critic since the inception of the project. He is directly responsible for many features of the System and shared a host of workshops with me, thereby lightening the burden and increasing the enjoyment.

During the 1990s, the Rorschach Research Council was formed. Its main functions are to evaluate new research findings, design and/or implement new studies concerning reliability and validity issues, and make recommendations concerning additions or alterations to the System. Those who have served, or are continuing to serve on the Council include Thomas Boll, Philip Erdberg, Roger Greene, Mark Hilsenroth, Gregory Meyer, William Perry, and Donald Viglione. I admire the diligence and dedication with which they have approached the challenges posed by the

test. Most of the improvements to the System that have occurred during the past decade are a direct result of their efforts.

I must also acknowledge the remarkable talents of my daughter, Andrea, and my administrative assistant, Karen Rogers. Not only have they become proficient in their knowledge of the Rorschach, but they have excelled in keeping Rorschach Workshops organized and on track. I also owe an unpayable debt to my wife, Doris, who probably often felt that she married an inkblot. She has been involved in most every aspect of the work at Rorschach Workshops and has been a continuing source of support and encouragement to all of us.

Finally, a word for the prospective Rorschach researcher. There is no apparent end in sight to the continuing research questions posed by this awesome test. Although many of its mysteries have been solved, many remain. We are still unsure about many of the stimulus properties of the inkblot figures and some conceptual links between data clusters and personality or behavioral correlates require much more study. The issue of personality styles has received far too little attention, not only with regard to the Rorschach but to assessment instruments in general. These are challenges that must be addressed if the Rorschach, and assessment in general, is to reach the level of contribution for which we have strived, that is, understanding people and aiding in their times of quandry. The quest for knowledge about people is always difficult, but the rewards can endure for a lifetime.

J. E. E.

*Asheville, North Carolina
June 2002*

PART ONE

History and Development
of the Rorschach

CHAPTER 1

Introduction

The 10 figures that constitute the stimuli of the Rorschach test were first unveiled to the professional public in September 1921, with the release of Hermann Rorschach's famed monograph, *Psychodiagnostik* (1941/1942). Since that time, the test has generated much interest, extensive use, and considerable research. For at least two decades, the 1940s and 1950s, its name was almost synonymous with clinical psychology. During those years, the primary role of the clinician focused on assessment or psychodiagnosis. Although the role of the clinician broadened and diversified during the 1960s and 1970s, the Rorschach remained among the most commonly used tests in the clinical setting, and that status continues today. This is because considerable information about the psychological characteristics of an individual can be derived if the test is *properly* administered, scored, and interpreted.

Most any intelligent person can learn to administer and score (code) the Rorschach. The procedures are reasonably straightforward. On the other hand, Rorschach interpretation is neither simple nor mechanistic. It is a complex process that can be demanding. It is complex because it requires the interpreter to maintain a framework of logical conceptualization, without which it is impossible to develop meaningful conclusions. The process is demanding because it requires the interpreter to frequently challenge the integrity of the data. On the other hand, the routines of interpretation, that is, systematically questioning data and conceptually organizing findings, are

not difficult to learn *if* the student of the test has each of three basic prerequisites.

BASIC PREREQUISITES

A first prerequisite is a reasonably good understanding of people and the notion of personality. This does not mean that the Rorschach data are, or should be, interpreted directly in the context of any particular theory of personality. That probably is a mistake. Rorschach-based conclusions ultimately can be translated into any of a variety of theoretical models concerning personality but, before doing so, the data should be interpreted in a manner that is consistent with findings on which their validity has been based.

Rorschach interpretation always proceeds with the objective of developing an understanding of the person as a *unique* individual. Stated differently, an awareness that no two people are exactly alike should prompt any interpreter to strive for an integration of findings about characteristics such as thinking, emotion, self-image, controls, and so on in a manner that highlights individuality as much as possible.

A second prerequisite for Rorschach interpretation is a good working knowledge of psychopathology and maladjustment. This does not mean a simple awareness of diagnostic labels, or a naive assumption that concepts such as *normal* and *abnormal* establish discrete criteria from which assets and liabilities can be identified. Rather, a good understanding of psychopathology and/or

maladjustment evolves from an appreciation of how characteristics become liabilities, and how various mixtures of liabilities breed forms of internal and/or external maladjustment.

The third prerequisite is that the interpreter must have an understanding of the test itself. It consists of 10 inkblot figures which, when administered in a standardized manner, prompt the individual to make a sequence of decisions that lead to a series of responses. Once the responses are coded or scored, compiled sequentially, and used as a basis for numerous calculations, three inter-related data sets will exist:

1. The verbiage used by the subject when giving answers or responding to questions raised by the examiner,
2. The sequence in which the responses have occurred as reflected in both the substance of answers and the coding or scoring of them, and
3. The structural plot of frequencies for nearly 100 variables from which data for more than 60 variables, ratios, percentages, and indices are derived.

Collectively, these three data sets form the interpretive substance of the test and, typically, will yield enough information to construct a valid and useful description of the psychology of the individual.

THE UTILITY OF THE RORSCHACH

Why bother using the Rorschach? There are many assessment methods that can produce valid and useful descriptions of people and, although a Rorschach-based description of a person usually is quite comprehensive, it stems from a rather modest sample of indirect behaviors (responses to inkblot figures). Thus, findings and conclusions are mainly inferential. What value do these inferentially based Rorschach descriptions of people have when contrasted with descriptions formulated after a well-developed interview, findings from other psychological tests, or a description based on the observations of significant others?

The answer to this question is not as straightforward as some Rorschach advocates might hope. In reality, Rorschach findings may have little or no value in some assessment situations. For instance, if an assessor or referring party is convinced that a "hardwired" relationship exists between the presenting symptoms of the person and the most appropriate treatment for those symptoms, Rorschach findings will contribute little or nothing to a treatment decision. There are other cases in which the purpose of the assessment is to select a diagnostic label. Rorschach findings can contribute to this decision, but it is a time-consuming test and other assessment methods might achieve the "labeling" objective more efficiently.

The greatest utility of the Rorschach is when an understanding of a person, *as an individual*, becomes important for the purpose of selecting treatment strategies or targets, or when that sort of information is important to other decisions concerning the individual. Few, if any, assessment procedures can capture the uniqueness of the person as does the Rorschach when used appropriately. This is because Rorschach responses are produced by a relatively broad range of psychological operations and experiences.

The same functions and experiences that generate Rorschach responses also produce other behaviors, such as those observed by friends or relatives, or noted by those conducting formal interviews. Behavioral descriptions of a person that are derived from observations of significant others or produced from lengthy interviews often are reasonably accurate but, typically, those descriptions do not include information about the psychological functions that produce the observed behaviors. The Rorschach results contain this sort of information.

The nature of the Rorschach task prompts a routine of decision making under the rather unusual conditions of looking at inkblot figures. A host of psychological characteristics come into play when this decision making is required and, because of this, the responses tend to reflect the features of the person as he or she goes about

the routine decision making of everyday living. Many of these characteristics are not readily apparent to the observer of everyday behaviors. Observations focus on the *products* of psychological processes, that is, the behaviors. The Rorschach findings mainly reflect the processes that generate behaviors.

It is in this context that the Rorschach interpretations focus on the psychological organization and functioning of the person. The Rorschach test gives greater emphasis to the psychological structure or personality of the individual rather than to the behaviors of the person. It is the sort of information that goes beyond the identification of symptoms and searches out etiological issues that distinguish one person from another, even though both may present the same symptomatology. Why bother with the Rorschach? If a picture of the individual, as a unique psychological entity, will contribute significantly to the well-being of that individual by assisting in the selection of a treatment plan or contributing to other important decisions, the few hours involved in administering, scoring, and interpreting the test should be well worth the effort.

As noted earlier, anyone intending to develop skill in the use of the Rorschach should understand the nature of the test and how it works. Some of that understanding is gleaned from history, that is, how the test originated and how it evolved.

THE ORIGINS OF THE TEST— RORSCHACH'S WORK

Although the Rorschach has become an important clinical tool, its development has not always proceeded in a very systematic manner. Notions about what the test is, and is not, and how best it can be used, have varied considerably over time, and its history has often been marked by controversy. It has often proved baffling to researchers, and very irritating to those advocating the stringent application of psychometric principles to any psychological test. In retrospect, it seems obvious that many of the problems that have marked the development of the test occurred because most of

those directly involved with it were not always clear about Rorschach's conceptions or intentions, or not always ready to study it in the sort of empirical framework that Rorschach established in his own research.

Rorschach died at the age of 37, only seven months after *Psychodiagnostik*, was published. The 183 pages (English translation) that comprise the monograph are rich with concepts, findings, and case examples, but many issues about which Rorschach wrote are not fully explained, and some are addressed briefly, or in a manner that leaves important questions unanswered. This is not surprising because Rorschach did not regard his work as having yielded a test *per se* and, by no means, considered his work to be complete. Instead, he viewed his monograph as a report of findings from an investigation into perception. The original title that Rorschach selected for his monograph was, *Method and Results of a Perceptual-Diagnostic Experiment: Interpretation of Arbitrary Forms*. The issue of the title was raised in early August of 1920, when the manuscript was being reviewed before the type setting began. Walter Morgenthauer, a close friend and colleague, who was serving as the professional editor for the project, wrote to Rorschach:

I take this opportunity to include a word about the title of your work. I believe you are being very modest about it. Your subject concerns more than just Perception Diagnostics, much more than that, and all together more than a "mere" experiment. I would, therefore, like to suggest as the main title (in caps) PSYCHODIAGNOSTIK (or something similar). . . . As a subtitle I could see: "Through the Interpretation of Chance Forms," or "Experimental Investigations With the Interpretation of Accidental Forms." (Morgenthauer, 1920/1999)

Rorschach was not receptive to this suggestion and two days later wrote to Morgenthauer:

Now about this title. It is not just modesty, I have a sense of responsibility for the title. I have brooded a long time about this . . . but nothing has come forth that has suited me. Expressions such as Psychodiagnostik, Diagnostics of Diseases and Personality,

and the like seem to me to go much too far. . . . Perhaps later, when there is a norm created through controlled investigations, such an expression can be used. For now it strikes me as being too pompous. . . . So I should like to ask you to let the title stand as it is. (Rorschach, 1920/1999)

But this did not end the matter and, for the next several days, Morgenthaler continued to argue forcefully for a title change, emphasizing that the original title could create difficulties in marketing the book. Before the end of the month, Rorschach acquiesced, "Not very happily I yield, but your arguments are weighty and so I can do nothing else."

The reasons for Rorschach's decision to investigate the use of inkblots as a way to detect characteristics of people are not fully clear. It was not an original idea, but his approach was distinctive. There had been several attempts to use inkblots as some form of test well before Rorschach began his investigation. Binet and Henri (1895–1896) had tried to incorporate them into their early efforts to devise an intelligence test. They, like many of their day, believed that the inkblot stimulus might be useful to study visual imagination. They abandoned the use of inkblots because of group administration problems. Several other investigators in the United States and Europe published articles about the use of inkblots to study imagination and creativeness (Dearborn, 1897, 1898; Kirkpatrick, 1900; Parsons, 1917; Pyle, 1913, 1915; Rybakov, 1911; Whipple, 1914). It is doubtful that any of this work stimulated Rorschach's original study, but it is likely that he became familiar with much of it before he wrote his monograph.

It is certain that Rorschach often played the popular *Klecksographie* (Blotto) game as a youth. In fact, he even had the nickname "Klex" during his last two years in the Kantonsschule, which might have reflected his enthusiasm for the game. Ellenberger (1954) has suggested that the nickname may simply have evolved from the fact that Rorschach's father was an artist, but that notion

seems less plausible than the fact that Rorschach himself developed considerable artistic skill during his youth. Even before reaching adolescence, he was in the habit of making pencil sketches in small notebooks, and during adolescence created many very detailed ink drawings. In late adolescence and through the remainder of his life, he painted extensively with water colors. Most of his sketches and paintings are relatively small, and are quite remarkable for their realism and exquisite detailing. In fact, this skill probably contributed substantially to the creation of the 10 figures that were published with the monograph and comprise what has become known as the *Rorschach Test*.

It is very probable that his close friendship with a classmate from the Kantonsschule, Konrad Gehring, played an initial role in stimulating his exploration of the use of inkblots with patients. The *Klecksographie* game had flourished in Europe for several decades by the time Rorschach began his psychiatric residency in 1910 at the Münsterlingen Asylum on Lake Constance. The game was a favorite of both adults and children, and had several variations. Inkblots (*Klecks*) could be purchased in some stores or, as was more commonplace, players of the game could create their own. Sometimes, it was played by creating poem-like associations to the blots (Kerner, 1857). In another variation, a blot would be the centerpiece for charades. When children played the game in school, they or the teacher usually would create the blots and then compete in developing elaborate descriptions.

Konrad Gehring became a teacher at an intermediate school close to the Münsterlingen Asylum, and he and his pupils often visited the hospital to sing for patients. Gehring had discovered that if he contracted with his students to work diligently for a period of time and then permitted them to play *Klecksographie*, it not only provided an incentive, but his classroom management problems also were reduced considerably. This routine caused Rorschach to question whether Gehring's gifted pupils demonstrated

more fantasy in their inkblot responses than did the less gifted pupils. In 1911, a brief "experiment" ensued, lasting only a few weeks, but the procedure and results caused Rorschach to become intrigued with the management potential that the game seemed to offer, and also provoked an interest in making comparisons between the *Klecksographie* responses of Gehring's male adolescent students and his own adult patients. Thus, in a very casual and unsystematic manner, they worked together for a brief period, making and testing out different inkblots.

It is possible that little would have come from the Rorschach-Gehring "experiment" had not another event occurred during the same year. This was the publication of Eugen Bleuler's famed work on *Dementia Praecox* in which the term *schizophrenia* was coined. Bleuler was one of Rorschach's professors and he directed Rorschach's Doctor's Thesis, which concerned hallucinations. The Bleuler concepts intrigued the psychiatric community, but they also posed the very important issue of how to differentiate the schizophrenic from those individuals with other forms of psychosis, especially those with organically induced dementia. As almost a passing matter, Rorschach noted that patients who had been identified as schizophrenic seemed to respond quite differently to the *Klecksographie* game than did others. He made a brief report of this to a regional psychiatric society, but little interest was expressed in his apparent finding. Thus, Rorschach did not pursue the matter with any thoroughness for several years.

In 1910, Rorschach married a Russian, Olga Stempel, who was studying medicine in Switzerland. They agreed to ultimately practice in Russia. Rorschach completed his psychiatric residency in 1913 and moved to Russia with the expressed intention of remaining there for quite some time. He obtained a position at the Krukova Sanatorium where he worked for about five months, but then returned to Switzerland and accepted a position as a resident psychiatrist at the Waldau Mental Hospital near Bern, where he was to work for the next 14

months. It was during that time that he renewed his close friendship with Walter Morgenthaler, a senior psychiatrist at the hospital. It is very evident that Morgenthaler stimulated Rorschach's thinking about the potential usefulness of inkblots, and he played a key role in the publication of Rorschach's monograph.

In 1915, Rorschach obtained a position as a Senior Psychiatrist at the Krombach Mental Hospital in Herisau, and later became the Associate Director of that facility. It was at Herisau, in late 1917 or early 1918, that Rorschach decided to investigate the *Klecksographie* game more systematically. It is likely that the stimulus to that decision was the publication of the "Doctor's Thesis" of Szymon Hens, a Polish medical student who studied under Bleuler at the Medical Policlinic in Zurich. Hens developed his own series of eight inkblots which he group administered to 1,000 children, 100 nonpatient adults, and 100 psychotic patients. His thesis focused on how the contents of responses were both similar and different across these three groups, and he suggested that a classification system for the contents of responses might be diagnostically useful (Hens, 1917).

There is no doubt that Rorschach questioned the conclusions offered by Hens. Hens' approach to classification was very different from the one Rorschach and Gehring had conceptualized in their casual 1911 exploration. Unlike the Hens emphasis on classifying content, Rorschach was interested in classifying other salient characteristics of the responses. He was familiar with much of the literature on perception and seemed intrigued with, and influenced by, the concepts of Ach, Mach, Loetze, and Helmholtz, and especially the notion of an *apperceptive mass*. That concept is subtly pervasive in much of his writing.

Rorschach began his systematic investigation with the premise that groups of individuals, when presented with a series of inkblots, would be differentiated by the characteristics of their responses to the question, *What might this be?* It is evident that one of his basic postulates was that this variation of the *Klecksographie* procedure

might ultimately lend itself as a way of differentiating schizophrenia.

Rorschach made dozens of inkblots in preparing for his experiment. It is certain that he made at least 40, and tried out different combinations of 15 to 20 at the onset. Shortly after beginning this pilot work, he decided against using simple inkblots. He did not write much about that decision. His failure to do so, plus the manner in which he described the "Apparatus" in his monograph, caused many to assume that the figures of the test are largely ambiguous inkblots. But that is not true.

Each of the figures in the test contain numerous distinctive contours that are reasonably commensurate with objects with which most people have familiarity. Nonetheless, for several decades after the test was published, most who used and researched it were unaware of the substantial frequency of potentially reasonable answers that seem to be readily available to most people. There are probably several reasons for this, beginning with Rorschach's report of his experiment. In the monograph, Rorschach wrote, "The production of arbitrary forms is very simple: a few large ink blots are thrown on a piece of paper, the paper is folded, and the ink spread between the two halves of the sheet" (p. 15). This description carries the implication that the stimulus figures are ambiguous inkblots. Beyond this point in the monograph, he discontinued the use of the term inkblot (*klecks*) and referred to the materials as pictures (*bilder*), plates (*tafeln*), or figures (*figurs*).

He also wrote, "Not all figures so obtained can be used, for those used must fulfill certain conditions . . . the forms must be relatively simple . . . [they] must fulfill certain requirements of composition or they will not be suggestive, with the result that many subjects will reject them as "simply an inkblot . . ." (p. 15). Most who are familiar with the monograph have tended to assume that the figures he selected for use in the test were selected from a larger group of inkblots that he created, but that assumption probably is not entirely correct.

Rorschach typically made his inkblots on tissue paper. A large number of them were donated to the Rorschach Archives and Museum in 1998–1999 by his son and daughter, Wadim and Elisabeth Rorschach. They had been safekeeping a large quantity of their father's papers, protocols, tables, correspondence, figures, and artwork until a satisfactory site could be established for their storage and display. Between 15 and 20 of the tissue paper blots have some similarity to the published figures, but none contain the exquisite detailing that is evident in the figures used in the test. Seven or eight of the tissue paper blots might easily be confused as being the published figures at first glance, but even a casual comparison reveals the published figures are much more precisely detailed.

It is possible that Rorschach discovered some method for creating much more detailing when creating inkblots, but it seems more likely that he used his considerable artistic talent to detail and embellish the figures that he produced, and add some of the colorings. In doing so, he added many more contours and colors to those that appeared in the original blot. He did this to ensure that each figure contained numerous distinctive features that could easily be identified as similar to objects stored in the memory traces of the individual. This was important in constructing the figures because the premise underlying his experiment was based on the perception of arbitrary "forms."

Rorschach did not elaborate further on the manner in which the figures were created, but he did briefly mention the importance of "two or three parallel series" that he was creating, or intending to create, with the objective that each parallel figure should be designed so that, "the number of answers should compare favorably. Plate I of the new series should give approximately the same number of F's and M's as Plate I of the original, and so on. Plate V of the parallel series should present an object equally easy to recognize . . ." (p. 52).¹

¹ The fact that Rorschach failed to emphasize the exquisite detailing of the figures created for the test tended to

After a few months, he had created a series of 15 or 16 figures that seemed most useful for his purpose. He used at least 15 figures through much of 1918, and possibly into early 1919. Then, apparently after reviewing his findings, reduced the series to 12 figures, and continued to administer the 12 figures until circumstances caused him to eliminate two more.

During the period from 1917 to 1919, he maintained frequent contact with Morgenthaler and also presented three brief papers concerning his experiment at professional meetings. It was in this time frame that Morgenthaler encouraged him to publish information about his experiment and, by mid-1919, Rorschach became convinced that his work had progressed sufficiently to warrant publication. He was especially interested in having the figures that he was using printed in a standard format so that they could be used by the numerous colleagues who had expressed interest in his work.

The data that Rorschach had analyzed by mid-1919 were sufficient for him to demonstrate that the method he had devised offered considerable diagnostic usefulness, especially in identifying schizophrenia. In the course of the investigation, he also discovered that clusterings of high frequencies of certain kinds of responses, mainly movement or color responses, appeared related to distinctive kinds of psychological and/or behavioral characteristics. Thus, the method seemed to have both a diagnostic potential and the possibility of detecting some qualities of the person which, in the terminology of contemporary psychology, would probably be called *personality traits, habits, or styles*.

In addition to Morgenthaler, other colleagues, including Bleuler, were impressed with Rorschach's experiment and the diagnostic potential that it

seemed to hold. Several pleaded with him for a loan of the figures he was using so that they could try them out and numerous colleagues encouraged Rorschach to publish his findings in a form from which others could learn to use the method. Gradually, Rorschach became enthusiastic about this prospect, but encountered a significant obstacle when he proposed the work to several publishers. They were uniformly negative about the printing of the inkblot figures, citing the complexities and expense involved. One publisher expressed interest, provided that the printing of only one figure would be required. Another agreed to publish a manuscript but with the proviso that the number of figures be reduced to six. Rorschach rejected these possibilities but continued with his work, adding more subjects to his samples.

It was at this point that Morgenthaler interceded on Rorschach's behalf. Morgenthaler was, at that time, a consulting editor for the firm of Ernst Bircher, a publishing house specializing in medical books. Morgenthaler had agreed to organize a series of works, to be published by Bircher, concerning various issues in psychiatry. He was also well along toward the completion of two books to be included in the series. One of these, planned as the first in the series, was a book about one of Morgenthaler's patients named *Wölflin*, which attracted much interest after it was published (Morgenthaler, 1921/1992). It contained considerable artwork that was difficult to reproduce accurately. The manner in which Bircher addressed the problem of the *Wölflin* artwork convinced Morgenthaler that he could also deal successfully with the problems involved in reproducing the blots that Rorschach had created, and he appealed to Bircher to undertake the publication of Rorschach's monograph.

Bircher agreed, somewhat reluctantly, but some compromises were necessary. Bircher refused to reproduce more than 10 inkblot figures and also decided that those used by Rorschach were too large. Although probably dissatisfied, Rorschach agreed to rework the various data tables that he had created so that they would reflect

reinforce the notion that the figures are largely ambiguous, an assumption that played an important role when the projective psychology movement evolved two decades later. He also included information about his investigation that seemed to support that notion and led those working to develop the test into a direction that, generally, ignored the stimulus properties of the figures.

the accumulated findings for only 10 figures. He also agreed to a one-sixth reduction in the size of the figures, but even well into 1920, before the final manuscript was submitted, appealed for at least one more figure to be added to the series.²

After the final manuscript was submitted in July 1920, Rorschach had to reduce it by more than 60 pages because of cost factors, but more significant problems occurred as the proofs of the figures were created. When they were reproduced, some of the colors were altered substantially, especially on Cards VIII and IX, and a much greater differentiation in the shades of grey and black were produced in the achromatic figures. Whereas three of Rorschach's original figures (IV, V, and VI) had been created with almost no shading, the printing process created very notable contrasts in the tones. Ultimately, Rorschach accepted these "glitches" as offering new possibilities (Ellenberger, 1954), but it is clear that he was not enthusiastic about them at the onset. Proof versions for all of the original figures were made at least twice, and as many as four proofs were created for some of the plates. Finally, in October 1920, Bircher wrote to Rorschach, "... the glitches can no longer be changed ... I cannot do it because each print costs too much."

The manuscript was finally published in September 1921. Much of it is based on the findings that had accumulated for 405 subjects, of which 117 were nonpatients that he subdivided into "educated" and "noneducated." The sample also included 188 schizophrenics who comprised his

basic target population. True to his casual 1911 observations, the schizophrenic group did respond to the figures quite differently than did the other groups. His major thrust avoided and/or minimized content and, instead, focused on the development of a format for classifying responses by different characteristics. He developed a set of codes, following largely from the work of the Gestaltists (mainly Wertheimer), that would permit the differentiation of response features. One set of codes, or scores as they have come to be called, was used to represent the area of the blot to which the response was given, such as *W* for the whole blot, *D* for large detail areas, and so on. A second set of codes concerned the features of the blot that were mainly responsible for the identification of the image reported by the subject, such as *F* for form or shape, *C* for chromatic color, and *M* for the impression of human movement. A third set of codes was used to classify contents, such as *H* for human, *A* for animal, *An* for anatomy, and so on.

Rorschach sternly cautioned that his findings were preliminary and stressed the importance of much more experimentation. It is apparent that he looked forward to much more research with the method and invested himself vigorously in it during the next several months. But then tragedy struck. On April 1, 1922, he was admitted to the emergency room at the Herisau hospital after having suffered abdominal pains for nearly a week. He died the next morning from acute peritonitis. He had devoted less than four years to his investigation of the "Blotto Game." Had he lived to extend his work, the nature of the test and the direction of its development might have been much different than proved to be the case.

It is evident that Rorschach was disappointed about the seeming indifference to his work after *Psychodiagnostik* was published. The only Swiss psychiatric journal did not review it and other European psychiatric journals did little more than publish brief summaries of the work. The monograph was a financial disaster for the publisher. Only a few copies were sold before Rorschach died

² Although Rorschach used 12 figures well into 1919, there is a definite possibility that he anticipated using only 10 figures in the final set well before that time. Some of his correspondence to colleagues, contributed to the Rorschach Archives and Museum by his son Wadim and daughter Elisabeth, in 1999, includes letters in which 10 figures are mentioned. Whether these were written prior to his verbal discussions about a monograph with Morgenthaler is not clear, but clearly raises the possibility that he was not disappointed, as I have suggested, about having only 10 figures printed. It also seems likely that the two figures that were deleted from the 12 blot series were ultimately included in the parallel series that became known as the Behn-Rorschach.

and before the House of Bircher entered bankruptcy. Fortunately, the subsequent auction of Bircher goods left the monograph and the 10 plates in the hands of a highly respected publishing house in Bern, Verlag Hans Huber. Huber's reputation for quality publications, plus a few favorable reviews of the monograph, stimulated interest in pursuing Rorschach's work further. However, Rorschach's death, and the fact that the figures created in the printing were somewhat different than those used by Rorschach in his experiment, posed a significant problem for those who would try to continue his work. But, as discussed in the next chapter, those were only the basic seeds of problems for those who became interested in developing and using Rorschach's method.

REFERENCES

- Binet, A., & Henri, V. (1895-1896). La psychologie individuelle. *Année Psychologique*, 2, 411-465.
- Dearborn, G. (1897). Blots of ink in experimental psychology. *Psychological Review*, 4, 390-391.
- Dearborn, G. (1898). A study of imaginations. *American Journal of Psychology*, 9, 183-190.
- Ellenberger, H. (1954). Hermann Rorschach, M.D. 1884-1922. *Bulletin of the Menninger Clinic*, 18, 171-222.
- Hens, S. (1917). *Phantasieprüfung mit formlosen Klecksen bei Schulkindern, normalen Erwachsenen und Geisteskranken*. Zurich: Speidel & Worzel.
- Kerner, J. (1857). *Klexographien: Part VI*. In R. Pissen (Ed.), *Kerners Werke*. Berlin: Boag & Co.
- Kirkpatrick, E. A. (1900). Individual tests of school children. *Psychological Review*, 7, 274-280.
- Morgenthaler, W. (1992). *Madness and art. The life and works of Adolf Wölfl* (Trans.). Lincoln: University of Nebraska Press. (Original work published 1921)
- Morgenthaler, W. (1999). Correspondence to Rorschach dated August 9, 1920 (Trans.). In *Lieber Herr Kollege!* Bern, Switzerland: Rorschach Archives. (Original work published 1920)
- Parsons, C. J. (1917). Children's interpretation of inkblots: A study on some characteristics of children's imagination. *British Journal of Psychology*, 9, 74-92.
- Pyle, W. H. (1913). *Examination of school children*. New York: Macmillan.
- Pyle, W. H. (1915). A psychological study of bright and dull children. *Journal of Educational Psychology*, 17, 151-156.
- Rorschach, H. (1942). *Psychodiagnostik* (Hans Huber, Trans.). Bern, Switzerland: Verlag. (Original work published 1921)
- Rorschach, H. (1999). Correspondence to Morgenthaler dated August 11, 1920 (Trans.). In *Lieber Herr Kollege!* Bern, Switzerland: Rorschach Archives.
- Rybakov, T. (1911). *Atlas for experimental research on personality*. Moscow, Russia: University of Moscow.
- Whipple, G. M. (1914). *Manual of mental and physical tests* (Vols. 1 & 2). Baltimore: Warwick & York.

CHAPTER 2

Development of the Test: The Rorschach Systems

Although several of Rorschach's colleagues continued to use his *Formdeutversuch* (Form Interpretation Test) after his death, none followed a systematic approach to data collection as he had done. Instead, they attempted to focus on clinical and/or vocational applications of the test. Rorschach had deliberately avoided theorizing about the nature of his method and, as noted earlier, cautioned repeatedly about the limitations of his data and the need for more research. He also tended to discount the importance of content *per se*, postulating that content analysis would yield little about the person. But this did not detract many users of the test from trying to apply it more directly to the increasingly popular Freudian theory.

Three of Rorschach's colleagues became the strongest advocates of the *Form Interpretation Test*. They were Walter Morgenthaler, Emil Oberholzer, and Hans Behn-Eschenberg. Behn-Eschenberg, a psychiatric resident who worked directly with Rorschach at Herisau, was the first to apply the method with school children (1921). In his study, supervised by Rorschach, he used 10 of the plates that Rorschach had created while attempting to develop a parallel series. These ultimately became known as the *Behn-Rorschach*, and later were touted as a parallel series (Zulliger, 1941).

Morgenthaler and Oberholzer initially based their advocacy on the premise that the method was well suited for the differentiation of schizophrenia, but like many others in the psychiatric community, felt that Rorschach's work was incomplete *mainly* because of the lack of content interpretation. They

both remained faithful to Rorschach's method for scoring answers, but each sought to extend his work by giving greater emphasis to the use of the content. Oberholzer, a psychoanalyst and close friend of Rorschach, was enthusiastic about the inkblot project. A few weeks prior to his death, Rorschach sought Oberholzer's comments about a paper that he had been preparing to present to the Swiss Psychoanalytic Society. Although Rorschach did not complete a final revision, Oberholzer decided to publish it because it included some new concepts and the identification of two new scoring categories, one for chiaroscuro (shading) features and the second for vulgar (Popular) answers (Rorschach & Oberholzer, 1923). The article has been included as an addition to subsequent editions of *Psychodiagnostik*. Oberholzer also was to play an important role in the ultimate development and use of the test.

Although most of the early European users of Rorschach's test were interested in response content, none exploited the use of content interpretation inordinately. At the same time, none seemed to have the understanding or motivation, to extend Rorschach's postulates concerning the perceptual properties of responses. No new scores or scoring categories were advocated for the format until 1932, when Hans Binder published an elaborate scheme for scoring achromatic and shading responses. But unlike Rorschach, Binder's format was logically intuitive rather than empirically developed.

Many people and events were to become influential in determining the expansion and growth

of Rorschach's method and, as noted earlier, Oberholzer was among that group. In fact, he was one of the first catalysts to the development and growth of the test in the United States. By the mid-1920s, he had become a widely respected psychoanalyst who included a specialty in children among his varied talents. Because of that reputation, an American psychiatrist, David Levy, petitioned for and received a grant to study with Oberholzer in Switzerland for one year. During that year, Levy learned about Rorschach's work and, on his return to the United States, brought along several copies of the blot photos (they were not yet routinely mounted on cardboard), with the intent of exploring their use with children. Other interests deterred Levy from his intent to use and study the test, but he did publish a translation of one of Oberholzer's papers about it in 1926. At that time, Levy was a staff psychiatrist at the Institute of Guidance in New York City. The Institute was interdisciplinary and was a resource for the New York City schools to serve the needs of children, mainly those whose academic performances were substandard, but also to provide psychiatric consultation and service to disturbed children from the greater New York area. It was a natural training facility for students in psychiatry and psychology.

In 1927, Samuel J. Beck, a graduate student at Columbia University, was awarded a student fellowship at the Institute. He worked a few hours each week, learning to administer and interpret various tests of intelligence, aptitude, and achievement. By 1929, Beck was actively searching for a research topic that might be acceptable for a dissertation. In a casual conversation one afternoon, Levy mentioned to Beck that he had brought copies of the Rorschach figures with him on his return from Switzerland. He showed them to Beck and loaned him a copy of Rorschach's monograph. Beck became intrigued with the test and practiced with it under Levy's supervision at the Institute. Subsequently, Beck broached the idea of a standardization study to his dissertation advisor, the famed experimental psychologist Robert S. Woodworth.

Woodworth was not aware of Rorschach's work, but was familiar with some of the experiments of the Gestaltists in which inkblots were used as a part of the stimulus field. After reviewing the test with Beck, Woodworth agreed that a standardization study, using children, might contribute to the literature on individual differences. Thus, nearly seven years after Rorschach's death, the first systematic investigation concerning his test was initiated, one that would launch Beck into a career that was to make him one of the truly great figures of the test.

Beck took nearly three years to collect and analyze the data for his study. It involved testing about 150 children. During that period, he maintained contact with two close friends who he had first met some 10 years earlier while working as a newspaper reporter in Cleveland. They were Ralph and Marguerite Hertz. Shortly after Beck began his study, the Hertzes visited New York. At that time, Marguerite Hertz was also a psychology graduate student, studying at Western Reserve University in Cleveland. During the visit, Beck shared some of his notions about Rorschach's work with her and showed her the test figures. She was quick to recognize the vast potential of the method, and she also petitioned to do her dissertation about the test. She devised a study similar to Beck's, but with several variations in sampling. Thus, the second systematic investigation of the test began. Both dissertations were completed in 1932. After graduating, Hertz accepted a position involving an elaborate multidisciplinary study of children at the Brush Foundation in Cleveland, whereas Beck took a joint position at the Boston Psychopathic Hospital and Harvard Medical School.

Neither Beck nor Hertz added any new components to Rorschach's format for coding or scoring answers in their dissertations. Their findings did add important data about how children responded but, probably more important, was the breadth of experience each gained, which led to a better understanding of the Rorschach's conceptual framework. Both completed their work with a marked awareness of the need for more research. If someone had predicted the developmental

future of the Rorschach Test at that time, it is doubtful that any anticipation of future controversy would have been mentioned. Both Beck and Hertz were trained in programs with stringent empirical orientations. Many of their findings were similar, as were most of their conclusions. But events of the world would ultimately alter this seemingly harmonious beginning very significantly.

The most important of those events was the rise to power of Adolph Hitler in Germany. The ultimate chaos that was created affected the lives of three other psychologists and, as a result, each became extensively involved with Rorschach's test. The first to experience the impact of the power of the Nazis in Germany was Bruno Klopfer. Klopfer had completed his doctorate in 1922, at the University of Munich. He became a specialist in children and focused much of his work on emotional problems as related to academic progress or lack thereof. Ultimately, he became a senior staff member at the Berlin Information Center for Child Guidance. It was an institute similar in design and scope to the Institute for Child Guidance in New York where Beck did his early research. But unlike Beck who, by 1932, had become deeply interested in the test, Klopfer had no interest in the Rorschach. Both his training and orientation were strongly phenomenological, and his abiding interest was in the Freudian and Jungian psychoanalytic theories. He had begun personal analysis in 1927 and training analysis in 1931, with the objective of becoming a practicing analyst. By 1933, the many directives from the government to the Berlin Information Center for Children concerning studies on, and services for, Aryan and non-Aryan children, as well as the increasing pressure on Jews, led Klopfer to decide to leave the country. Klopfer's training analyst, Werner Heilbrun,¹ aided him in contacting many professionals outside of Germany, seeking assistance for him. One

who responded positively was Carl Jung, who promised a position for Klopfer if he could reach Zurich, which he did during 1933.

The position that Jung found for Klopfer was that of a technician at the Zurich Psychotechnic Institute. The Institute served many functions, among which was psychological testing of candidates for various types of employment. The Rorschach test was among the techniques used routinely, and Klopfer was required to learn how to administer and score it. His instructor was another technician, Alice Garbasky. During the nine months that he held this post, Klopfer became intrigued with some of the postulates offered by Rorschach in *Psychodiagnostik*, but he did not become strongly interested in teaching or using the test. Instead, his first love remained psychoanalysis, and his stay in Zurich provided the opportunity for considerable personal experience with Jung. His role as a technician was far less satisfying to him than had been his much more prestigious position as a senior staff member in Berlin. He persisted in soliciting other employment, both in Switzerland and other countries. Ultimately, he was offered, and accepted, a position as a research associate in the Department of Anthropology at Columbia University. He immigrated to the United States in 1934. This was about the same time that Beck went to Switzerland, under a Rockefeller Fellowship, to study with Oberholzer for a year. Beck anticipated that his study in Switzerland would lead him to a better understanding of Rorschach's concepts and postulates.

By 1934, Beck had already published nine articles describing the potential merits of the Rorschach for the study of personality organization and individual differences. The first three of these appeared before Beck completed his dissertation, so that, by 1934, considerable interest had begun to develop about the test in the United States.² This interest was evident in both

¹ About four years after aiding Klopfer's flight from Germany, Heilbrun left his own practice to join the International Brigade in the Spanish Civil War. He was to become immortalized in some of Ernest Hemingway's writing as he was the model for "the physician" about whom Hemingway wrote.

² Woodworth was very enthusiastic about Beck's project and pressed him to publish early and frequently about it. Beck admitted (Personal Communication, June 1963) that Woodworth's status as an editor for the *American Journal of Psychology* made this easy to do.

psychiatry and psychology and was similar to the interest that had developed in Europe during the first decade after Rorschach's death. But, unlike the situation on most of the European continent, where the test had gradually gained widespread use, the American student of the test was faced with two problems. First, Rorschach's monograph was not readily available, but even if a copy were located, the reader had to be quite skilled in German, because it was not translated into English until 1942. Second, and more important, was the fact that it had not gained widespread use as was the case in Europe. Consequently, there were few opportunities to learn the techniques of administration and scoring, or the principles of interpreting the results.

Beck taught the method at Harvard Medical School and the Boston Psychopathic Hospital for about two years, and Hertz began teaching the method to technicians at the Brush Foundation and to students at Western Reserve University. David Levy left New York in 1933 to head a new children's unit at Michael Reese Hospital in Chicago, and he trained a few technicians there how to administer the test. But, other than those three locations, no formal instruction in the test existed. It was not uncommon for the interested student to be frustrated because formal training about the test was not readily available. It was this situation that had a major impact on the career of Bruno Klopfer and led him into a role as one of the most significant figures in the Rorschach community.

In late 1934, some of the graduate students at Columbia University learned that Klopfer had gained considerable experience with the test in Zurich and petitioned their department chairman, Woodworth, for a seminar about the test to be conducted by the Research Associate from Anthropology. Woodworth was reluctant to arrange a joint appointment for a relative unknown to his department and, instead, suggested that he would try to arrange for some formal training in the test by Beck, after Beck's return from Switzerland. The students were not to be deterred from their interest, however, and

enticed Klopfer to conduct an informal seminar in his apartment two evenings a week. Klopfer agreed to do so with the proviso that at least seven students would participate, each paying a small stipend for the six-week seminar.

It had been Klopfer's intention to teach the fundamentals of administration and scoring during that first private seminar, but that format was subverted by the incompleteness of Rorschach's work. At almost every meeting, when participants would discuss responses that they had collected in their practice with the test, the lack of precise designations for the variety of blot areas, that is, whether an area being used was *common* or *unusual* created much disagreement. More important, the lack of codes or scores to differentiate the variety of responses that emphasized the shading of the blots led to debates that would often continue well into the night. Klopfer readily perceived that the future of the test could easily hinge on the resolution of these problems. He was a masterful teacher and an excellent organizer. As he found his own intrigue with the test rekindled by the enthusiasm of the students, he became excited about the challenge posed by the incompleteness of the test.

By the end of the seminar, the students had already decided to continue for a second six weeks, and other students from Columbia University and New York University asked Klopfer to form a second group. The second led to a third and so on. In each of these seminars, possible new scores for location and to identify responses that included shading features were discussed, and decisions were made to add them to the existing scoring format. By late 1935, several new scores had been added, and more were being considered. The Klopfer groups approached the problem of the shading answers by drawing extensively from Binder's (1932) suggestions, but then redefining some, and creating others.

By 1936, Klopfer was devoting most of his time to the test. It is important to note that, during the time when Klopfer and his pupils were seeking to develop the test, the atmosphere was not readily conducive to intuitive innovations.

American psychology looked askance on phenomenology, having established itself as closely aligned with the traditions of "pure science." Behaviorism was a byword, and anyone willing to depart from the rigors of empiricism, or unwilling to accept its tenets, would often be regarded with a somewhat jaundiced eye. This was to create a significant problem for Klopfer, and even more so for the development of the test.

Klopfer was quick to recognize the need to disseminate information about the Rorschach, especially because in each of his seminars new scores were being adopted or new formulations about the test evolved. He began to publish a mimeographed newsletter in 1936 that he called *The Rorschach Research Exchange*, later to become the *Journal of Projective Techniques*, and ultimately the *Journal of Personality Assessment*. Its original purpose was to provide updates concerning the developments of the test as they evolved in the many seminars that Klopfer conducted privately and in the supervisory seminars he began teaching at Columbia. But there was also a secondary purpose: Klopfer perceived the *Exchange* as a potential vehicle through which to share data, ideas, and experiences with the test. In that context, he invited Beck, Levy, Hertz, and Oberholzer to contribute, and anticipated that a dialogue among those experienced with the test would stimulate more rapid development. But this was not to be the case.

Shortly before the first issue of the *Exchange* appeared, an article was published by Beck (1936) in another journal that was extremely critical of some of the Swiss psychiatrists, especially Bleuler and his son Manfred, who were applying the test in ways Beck felt were too subjective, especially in the way that the responses were being scored. The title of the article, "Autism in Rorschach Scoring," provides some indication of the vigor with which Beck attacked deviations from the coding or scoring format that Rorschach had developed. As he had done in previous articles, Beck pointed to the need for careful, systematic research that would lead to

fixed standards for administration, scoring, and interpretation.

It is not surprising, in light of that firm position, to find that Beck reacted to Klopfer's movement to expand the scoring format for the test with a marked coolness. There is no question that the scoring format the Klopfer group developed, which was presented in the first issue of the *Exchange* (Klopfer & Sender, 1936), was well organized and carefully thought through. But the absence of any database, plus the fact that the format diversified the scoring well beyond any points that Rorschach had conceptualized or defined, or that either Beck or Hertz had explored in their work, made it difficult for anyone committed to an empirical framework for the test to accept.

Things went from bad to potentially disastrous in early 1937. After Beck received an invitation to write for the *Exchange* in 1936, he sent Klopfer a copy of a manuscript that he had been preparing for nearly two years. It was his first book, *Introduction to the Rorschach Method*, published as the first monograph of the American Orthopsychiatric Association in 1937, later to become known as "Beck's Manual." Klopfer decided to devote a major portion of a 1937 issue of the *Exchange* to a review of Beck's Manual (Klopfer, 1937a). As might be expected, the review was more negative than positive, discussing Beck's reluctance to add scores and his criteria for the definition of good versus poor form quality responses. It provoked a reply from Beck, which Klopfer published in the second volume of the *Exchange* (Beck, 1937b). That article, "Some Rorschach Problems," was very critical of the Klopfer approach, and clearly documents the fact that an important schism existed between the two orientations. In the next issue of the *Exchange*, a series of comments on the Beck article was published, most written by followers of Klopfer, or by those who tended to favor his orientation. Many were very critical of Beck, and some were openly hostile. Collectively, they only served to strengthen Beck's resolve.

Hertz, much to her disappointment, also became caught up in the controversy between Beck

and Klopfer. She agreed with Beck about the need for further development of the test, and her commitment to that need never waned. Her relation with Klopfer, first through correspondence and then personal contact, led her to take a positive stance toward his efforts for a consolidated approach to studying the test. But, like Beck, she was committed to careful investigation. When the Beck-Klopfer schism became so apparent in the *Exchange*, she attempted to assume the role of a mediator. Her first effort was put forth in a 1937 *Exchange* article (Hertz, 1937), in which she noted the relatively limited database from which Beck had drawn many of his conclusions, and at the same time criticized the Klopfer group for, "refining scoring to the extent of becoming involved in a maze of symbols." Although the article did little to reconcile Beck and Klopfer, it did point to the potential flaws of each approach. Nonetheless, she remained hopeful for some more unified approach to the test and periodically issued a new plea for reconciliation and compromise (Hertz, 1939, 1941, 1952b).

In spite of the efforts of Hertz and others to strike some form of compromise between Beck and Klopfer, the schism continued to grow, and by 1939 reached a point where reconciliation was no longer considered possible by either. After that time, no further communication, verbal or written, was to occur between them. After his return from Switzerland, Beck was enticed by David Levy to accept a joint appointment at the Michael Reese Hospital and the University of Chicago. During the period from 1944 to 1952, he published a three-volume series concerning the Rorschach, representing his approach to its use (Beck, 1944, 1945, 1952). Klopfer remained in New York, holding appointments at Columbia University and the City University of New York until the end of World War II. Then he accepted a professorship at the University of California at Los Angeles. His first book about the test appeared in 1942, coauthored by Douglas Kelley. Between 1954 and 1970, Klopfer and his colleagues also published a three-volume series that

generally reflects the system he organized for using the test (Klopfer, Ainsworth, Klopfer, & Holt, 1954; Klopfer, Meyer, Brawer, & Klopfer, 1970; Klopfer et al., 1956).

Hertz remained in Cleveland, as a professor at Western Reserve University. She published more than 60 articles concerning the test, plus a very elaborate set of frequency tables, which were revised several times, for use in scoring form quality (Hertz, 1936, 1942, 1952a, 1961, 1970).³ In effect, each went their own way, developing the Rorschach in the context of their own theoretical and/or empirical bias. As such, the Rorschach became fragmented into three separate systems that were quite different from each other. But further diversification of the test was to occur.

Among the participants in Klopfer's first seminar was Zygmunt Piotrowski, a postdoctoral fellow at the Neuropsychiatric Institute in New York. Piotrowski had been trained as an experimental psychologist, obtaining his doctorate in 1927 from the University of Poznan in Poland. He wanted to broaden his education by studying at a variety of universities and, after obtaining his degree, spent two years at the Sorbonne in Paris. He then accepted a position as an instructor and postdoctoral fellow at the Columbia University College of Physicians and Surgeons. His primary objective was to learn more about neurology because, at that time, he was very interested in the development of symbolic logic. He knew little about the Rorschach test, although he had been a subject, while a graduate student, for someone

³Hertz began a manuscript describing her own approach to the test during the mid-1930s. It included large quantities of data collected at the Brush Foundation. When the Foundation closed, it was inadvertently destroyed, a tragedy she described in personal correspondence (1968):

One day it was decided to dispose of the material no longer in use and which the authorities felt was worthless. I was called and told that I may have my material. I went over at once with graduate students and a truck, but to my dismay I learned that my material had already been burned by mistake. All the Rorschach records, all the psychological data, all the worksheets, plus my manuscript went up in smoke. Of course the loss was irreparable.

learning to use the test. From that experience, he had a vague notion about the nature of the test, but had little interest in it.

As a postdoctoral fellow at Columbia, he came into contact with many of the graduate students from psychology, and on the encouragement of one of them, he decided to attend Klopfer's first seminar. The result of that casual decision was the onset of considerable intrigue with the test, not so much concerning its development as Klopfer encouraged, but more with the potential of the test to differentiate creativeness. He was especially interested in how those with neurologically related problems might function in the test situation. Piotrowski continued in a close relationship with Klopfer during the period of the first few Klopfer seminars, contributing ideas for some new scores that would become permanent fixtures in the Klopfer System. But, as the Beck criticisms of the Klopfer approach became more intense, he backed away from the Klopfer group and devoted more time to studies of the neurologically impaired under the tutelage of Kurt Goldstein, with the intent of returning to his homeland in 1939.

The German invasion of Poland, in September 1939, caused Piotrowski to alter his course, and he accepted a position at the Jefferson Medical School in Philadelphia where he was able to continue his studies of the neurologically impaired and, at the same time, test some of his own ideas about the Rorschach. Ten years later (1950), he published a monograph that contained the nucleus for his own approach to the test. Later he published an elaborate text about the use of the test, *Perceptanalysis* (1957), in which he integrated his own ideas about perceptual interpretation into a system for using the test. Thus, a fourth approach to the Rorschach, different from Beck, Klopfer, or Hertz, came into being.

Before Piotrowski completed his work with the test, another figure was to have a significant impact on the development and use of the Rorschach in the United States. This was David Rapaport. Like many others of his time, Rapaport fled Europe in

1938, shortly after completing his doctorate at the Royal Hungarian Petrus at Pazmany. His orientation was strongly psychoanalytic, and during his training he became intrigued with the process of thinking, especially pathological thinking. He had some limited experience with the Rorschach, but no strong commitment to it or any other psychological test. His forte was theory, and primary among his professional dreams was to augment contemporary concepts about the functions of the ego in the classic analytic model. After coming to the United States, he worked briefly at Mount Sinai Hospital in New York, and then took a position at a state hospital in Osawatomie, Kansas. His decision to accept the Kansas position came partly from financial need, but mainly because it brought him closer to the mecca of psychoanalytic thinking and practice, the Menninger Foundation. His position at Osawatomie afforded him frequent contact with the Menninger Foundation, and when a staff position opened there in 1940, he was appointed to it, and became head of the psychology department two years later. His work with the Rorschach and other tests convinced him that they could be used to study ideational activity. He was also strongly influenced by the writing of Henry Murray (1938) concerning the process of projection and its relation to the study of personality.

Following a directive of Karl Menninger, Rapaport organized an elaborate project to study the efficacy of several psychological tests for the purpose of deriving a broad picture of the psychological functioning of the person. He was aware that his own training did not equip him well for psychometric research, but was able to surround himself with a brilliant research team, drawn both from the staff of the Foundation and from the graduate student body at the University of Kansas. This team included Merton Gill, a staff psychiatrist at the Foundation, and Roy Schafer who was an intern there and a graduate student at the University of Kansas. That project culminated in a masterfully written two-volume series, *Diagnostic Psychological Testing* (1946), that focused on the clinical applications of eight psychological tests,

including the Rorschach. That work has been largely responsible for the notion that a battery of tests will provide the sorts of data from which an integrated and rich understanding of the person can evolve.

Rapaport was very aware of the dispute between Beck and Klopfer and took pains to avoid taking sides. The approach to the Rorschach that he ultimately selected is similar to Klopfer in some ways, yet also quite different from Klopfer and more influenced by his allegiance to psychoanalytic propositions. The two volumes were frequented with charts and graphs that highlighted data, but the conclusions often ignored or went well beyond the data, reflecting much of Rapaport's logic about the psychology of the person. Had the Rapaport and Klopfer groups merged in their respective efforts to develop the test, the result might have been much more striking and influential concerning the use of the Rorschach, and some of Rapaport's tendencies to deviate markedly away from Rorschach's basic methodology might have been thwarted. But this was not to be and, by 1946, the seeds of a fifth approach to the test were firmly sown in ways that were incompatible with each of the other four approaches.

Following the publication of the two volumes, Rapaport was to drift away from psychological testing and back to his first love: developing a more detailed model about ego functioning. Nonetheless, the system he had developed was to influence many users of the Rorschach and was enriched by Schafer's 1954 classic work, *Psychoanalytic Interpretation in Rorschach Testing*. It not only added considerably to the Rorschach model that Rapaport had created, but also represents a milestone in the use of content analysis to derive a broad review of the dynamics of personality. In effect, what Rapaport began, Schafer extended enormously.

Thus, during a period of slightly more than 20 years (1936–1957), five American Rorschach systems developed. They were not completely different from one another, but most of the similarities consisted of elements that each had incorporated

from Rorschach's original work. Beyond those features, the five systems were incredibly different, so much so that they defied comparison for many issues of scoring and approach to interpretation (Exner, 1969).

In Europe, during this same period, literature concerning Rorschach's test also became extensive, but it appeared largely in journals. Rorschach's monograph remained a basic text until 1957, when Ewald Bohm's work, *Lehrbuch der Rorschach Psychodiagnostik* was published. In it he brought together the basics of administration and scoring, remaining very close to Rorschach's concepts and presenting a thorough and sophisticated description concerning the interpretation of the test. He was familiar with the works of Beck, Klopfer, Hertz, and Piotrowski, and frequently integrated some of their notions into his recommendations about interpretation. In effect, Bohm created a sixth system, which gained widespread use in Europe.

In spite of these different approaches, the Rorschach *methodology* flourished as one of the mainstays in psychodiagnosis. Practitioners and researchers alike often tended to ignore the presence of five or six markedly different approaches to the method. Either they were not fully cognizant of the breadth of the differences that existed across the separate systems, or they minimized those differences unrealistically. Most preferred to believe that a single test, *the* Rorschach, existed, and could be described in laudatory or critical terms depending on one's perspective about it. That notion probably persisted because of another common thread that was to link the systems together by altering the way in which the test was characterized: the concept of *projection*.

THE CONCEPT OF PROJECTION AND PROJECTIVE TECHNIQUES

During the first three decades of the twentieth century, applied psychology was mainly involved with the use of tests to study intelligence and operations related to intelligence such as aptitudes,

achievement levels, motor skills, and the like. There were methods devised to study some features of personality, but typically, they were designed to measure single traits, such as introversion, dominance, flexibility, and so on. In those instances when a personality description or diagnosis was called for, a thorough interview and social history provided the bulk of the data (Louttit, 1936). The tests used were constructed on traditional psychometric principles whereby specific scores could be judged against group means, with little or no regard for the contents of a subject's response.

Most of the early Rorschach research, such as that of Beck and Hertz, followed that same format. The concept of projection, as applicable in psychological testing, had not really been formulated beyond the implications offered in Jung's Word Association Test (1910, 1918), which focused more on the issue of emotional arousal than projection as such. In Rorschach's experiment, he concentrated on score frequencies to develop a psychogram. He noted that "occasionally" the content of responses might offer some information about the characteristics of the person, but he expressed skepticism that this would be of major value in the method. He stressed the fact that the task required adaptation rather than the evocation of a stream of associations (pp. 122–123). Nearly *two decades* passed before the notion of projection would be applied to Rorschach's test.

About the same time that Klopfer began his first seminar, Morgan and Murray (1935) introduced the Thematic Apperception Test (TAT), based in part on the premise that people reveal something of their own personality when confronted with an ambiguous social situation. Three years later, Murray (1938) offered an elegant description of how the process of projection operates in an ambiguous stimulus situation. Murray's concept was, in part, derived from Freud's postulate about projection as a form of ego defense (the translation of internally experienced dangers into external dangers), thereby making the internal dangers easier to deal with (Freud, 1894/1953a, 1896/1953b, 1911/1953c), which he

later described as a natural human process (Freud, 1913/1955). Murray drew largely from Freud's 1913 concept, describing projection as a natural process in which defense may or may not be relevant. Murray's concept of projection was formulated simply as the tendency of people to be influenced by their needs, interests, and overall psychological organization in the cognitive translation, or interpretation of perceptual inputs, whenever the stimulus field included some ambiguity. This concept was crystallized by Frank (1939) in a paper in which the term *projective hypothesis* was coined. Frank suggested the label "projective methods" for a variety of techniques useful to the clinician in evoking this kind of action. The Rorschach was cited as one technique with this potential.

The *Zeitgeist* of psychology and psychiatry was ripe for this movement, and very quickly the availability of methods such as the Rorschach and the TAT began to change the orientation of clinicians away from one based largely on nomothetic comparisons toward a more intense effort to study the idiography of the person. Psychodynamic theory was gaining in popularity and this change in direction—emphasizing the unique needs, interests, conflicts, and styles of the individual—afforded the clinician a new status among professionals. By the early 1940s, case studies, research papers, opinions, and arguments concerning projective methods were appearing in the professional literature in a virtual torrent. During that decade and the next, many new projective techniques were developed. Louttit and Browne (1947) found a 60% turnover occurred among the 20 tests used most frequently in clinical settings between 1935 and 1946. Sundberg (1961) repeated the Louttit and Browne survey using data through 1959, and found that the turnover rate between 1936 and 1959 had reached 76% for the 20 most frequently used tests. In the Louttit and Browne survey, the Rorschach and TAT ranked fourth and fifth among the most frequently used instruments. In the Sundberg survey they ranked first and fourth, respectively. It is clear that the emphasis on projective methodology

became broadly pervasive in clinical testing during the 1940s and 1950s and continued in popularity through the next decade. Lubin, Wallis, and Paine (1971) collected data about test use through 1969, and found that the Rorschach ranked third and the TAT seventh.

During these three decades, a torrent of publications concerning the Rorschach appeared. All of the Rorschach systems were firmly in place by 1957, and none of the systematizers were oriented toward integration or compromise. Some of the research published between 1950 and 1970 was system specific, but much was not. It was common for authors, readers, and practitioners to interpret almost any report in the literature, whether positive or negative, as applicable to *the* Rorschach. A substantial disregard for the differences among the systems existed.

INTERSYSTEM DIFFERENCES

A comparative analysis of the five American approaches was published in *The Rorschach Systems* (Exner, 1969). That comparison was provoked by Beck and Klopfer. They had been encouraged to participate in a face-to-face discussion of their respective positions. Both declined, but in doing so, each recommended that their differences be carefully reviewed in a journal article (Beck, 1961; Klopfer, 1961). That project seemed simple at the onset, yet the significant following of those trained in, or aligned with the Hertz, Piotrowski, or Rapaport-Schafer approaches to the test argued for a broader comparison that would include all five. Thus, what was to be an article became a book and required several years to complete because the literature concerning each of the systems was extensive, scattered, and sometimes very distorted.

The final yield of the comparison illustrated the enormous magnitude of the differences across the five American systems. For instance, only two of the five used the same seating arrangements, and none of the five used the same instructions. In fact, none of the instructions used in one system were even remotely similar to those used in any of

the other systems. Each system collected the data of the test differently, making any comparison of the respective yields questionable. If the differences between the systems had involved only seating and instructions, some resolution could have occurred easily through a systematic study of the effects of those differences on test performance. But the differences went far beyond these two easily studied variables.

Each systematizer had developed his or her own format for coding or scoring responses, and they were markedly different. All had included most of Rorschach's original scoring symbols, but most altered some or all of the criteria for their application. Ultimately, 15 different codes or scores were formulated among the five systems to identify the *location* area of the blot used in a response. *Not one* of those 15 codes was defined in the same way across all of the systems. All five included Rorschach's scoring symbol *F* to denote that the form features or contours of the blot were important to the response, but each of the five used a different criterion to determine whether the form had been used accurately. *None* of the five scored the report of movement the same as any of the other four, and each defined the presence of a movement percept differently than the other four. Sixteen symbols existed among the systems to code the presence of chromatic color in a response, but even when the same symbol appeared in more than one system, the criterion for its application was likely to be different than in the other systems. The greatest disagreement for scoring among the systems concerned the use of shading or achromatic color in a response. Each system had a relatively unique set of symbols and criteria for their application. This is not surprising because Rorschach's original work did not include this feature because most of his blots did not become markedly shaded until the second edition of the monograph was published.⁴

⁴ Rorschach did become concerned with the need to score responses based on the shading features that appeared more distinctively in the figures that were created by the

The differences in scoring led to many differences concerning interpretation. The systematizers differed about which scores should be calculated and what relationships between scores would be important to interpretation. They differed concerning the meaningfulness of many variables, and which configurations of variables might be interpretively meaningful. In spite of their substantial differences, several interpretive postulates appeared in each of the systems that were the same or similar. For the most part, these were drawn from Rorschach's original work but, to the casual observer, that common thread could easily convey the impression that the systems were much more similar than was actually the case. Major differences existed across the systems for issues about which Rorschach was not definitive or had offered no procedures or postulates.

The major conclusion drawn from the comparative analysis was that the breadth of differences among the systems was so great that the notion of *the Rorschach* was more myth than reality. In effect, *five uniquely different Rorschach tests had been created*. They were similar only in that each used the same Swiss stimulus figures, and that each had included most of Rorschach's original scores and basic interpretive postulates, but even some of those had been uniquely embellished by some of the systematizers.

THE COMPREHENSIVE SYSTEM

Although the comparative analysis of the five approaches to Rorschach's test yielded important findings, two questions remained unanswered. Which of the five demonstrated the greatest empirical sturdiness, and which of the five had the greatest clinical utility? In 1968, the *Rorschach Research Foundation* was established to address

those issues.⁵ Among the first projects completed at the Foundation were three surveys, conducted to determine how clinicians were using the Rorschach, and what problems in design and analysis were being encountered by those doing research with the method.

The first of the three surveys (Exner & Exner, 1972) involved a questionnaire sent to 750 clinicians whose names were drawn randomly from the membership listings of the Division of Clinical Psychology of the American Psychological Association and the Society for Personality Assessment. Among the 30 items asked: In which of the five systems had the respondent received formal training? Which of the five systems did he or she use in everyday practice? and a number of items pertaining to seating, instructions, scoring, and interpretation. A total of 395 (53%) usable questionnaires were returned, and the results were striking. Nearly three of every five responding had received some formal training in the Klopfer method, and about one in every two in the Beck approach. Only about one in every five had received some formal training in the Piotrowski system, and about 10% had received training in either the Hertz or Rapaport approaches. Although that distribution was not necessarily unexpected, two other findings were very much so.

First, nearly 22% of the respondents had abandoned scoring altogether. They used the method exclusively for the subjective analysis of content. Second, 232 (75%) of the 308 respondents who did score the test admitted to *personalizing* the scoring, by integrating scores from one system to another system and/or adding unique scores developed from personal experience with the test. An overwhelming majority also admitted that they did not necessarily follow the prescribed tactics for administration specified in the system from which they derived most of their scoring, and the same was true for interpretive postulates. For

publisher, Bircher. He began to use the coding (C), describing this in the unfinished paper that was published posthumously in 1923 on his behalf by Emil Oberholzer, and which has been included as a part of the monograph, *Psychodiagnostik* since the printing of the second edition.

⁵ Although the legal title, Rorschach Research Foundation, continues to exist, the Foundation has actually become more widely known by its nickname, *Rorschach Workshops*.

instance, one might administer the Rorschach using the Rapaport face-to-face seating (which was disavowed in all other systems); score responses using criteria drawn from Klopfer, Beck, and Piotrowski; and draw from at least as many sources to develop interpretive postulates concerning the resulting data. The fact that clinicians using the test tended to piece together an assortment of features from the several systems, and from their own experience with the test, indicated that the five major approaches to the method had become astronomically proliferated into almost as many different tests as there were test users.

The findings, although striking, should not have been surprising. Jackson and Wohl (1966) conducted a survey of university Rorschach instructors and found that 12% did not teach scoring, and that the variability of methods for administration, scoring, and interpretation was remarkable. They also found that approximately 60% of those teaching Rorschach in the university setting had little or no postdoctoral training with the test, and that 46% would have preferred to be teaching something else. The Jackson and Wohl findings highlighted the failure to standardize the teaching of the test, and emphasized that those teaching it at that time were often less well qualified to do so than might be desired. The findings suggested that the generation of clinicians produced during the 1960s might be led to use the test in ways that could be substantially deviant from those for which the test was intended.

The second survey conducted by the Foundation involved a 90-item questionnaire, mailed to 200 Diplomates of the American Board of Professional Psychology. The return yielded 131 completed questionnaires, but 20 were discarded because the respondents indicated that they used the Rorschach fewer than 20 times per year. The remaining 111 provided information about the practices and opinions of clinicians who used the test at least 20 times per year, and who averaged 12 years of postdoctoral experience. Eighty-three of the respondents (75%) had received formal training in at least two of the systems, usually

Beck or Klopfer, plus one or two of the others, and 95 (85%) considered themselves knowledgeable in at least three of the systems. Only seven had discontinued scoring, but 62 (56%) admitted that they intermixed the procedures of administration and scoring from more than one system, and almost all used interpretive postulates drawn from more than one of the systems.

In effect, the same broad proliferation of approaches indicated in the results of the first survey also existed among this group of highly qualified practitioners who were using the test with a substantial frequency. In fact, when the data from the two surveys were combined, it was revealed that only 103 of the 506 respondents (20%) faithfully followed any single system. Obviously, the divergence of Rorschach methodology into five major approaches, and the subsequent proliferation of those approaches, did little to promote a more thorough understanding of the method as a test, or to enhance its development.

The third survey consisted of a 55-item questionnaire concerning issues of design and analysis in Rorschach research. It was mailed to 100 authors who had published research-based articles concerning the method between 1961 and 1969. The return yielded 71 usable replies. Nearly half of those responding (34) had abandoned Rorschach research in favor of a different topic. Those persisting were typically focusing their efforts on the study of single scores, or the development of new scores to address specific issues such as anxiety, body boundary, cognitive development, ego defense, and the like. The majority had received training in more than one system, but almost all were following research plans specific to a system. The results highlighted three broad areas of concern to most investigators.

1. The first concerned difficulties in recruiting subjects and/or the problem of requiring multiple examiners to avoid an experimenter bias effect.
2. The second involved the complexities of data analysis, especially the applicability of

parametric statistics to some data, and/or the problem of controlling for the number of responses.

3. The third represented the most common complaint, that of adequate control groups and/or the lack of extensive normative data to use for general comparisons.

The respondents uniformly agreed that the complexities of the Rorschach often generated more discouragement than reinforcement to the researcher. Most identified important research objectives concerning the method, but many also elaborated on the difficulties that made the achievement of those goals seemingly impossible.

Concurrent with the three surveys, another project was completed at the Foundation in 1970 that involved a systematic review of all published Rorschach research. The purpose of the project was to categorize, cross reference, and evaluate studies as they related to the variables of administration, scoring, and the interpretive postulates that had evolved in each of the five systems. By 1970, the Rorschach literature consisted of nearly 4,000 articles and 29 books, plus Rorschach's monograph. In spite of the voluminous literature, a surprisingly large number of issues had not been researched systematically.

For example, seating arrangements had never been subject to experimental manipulation, and only one study compared different instructions, and for only two systems. No research had been published for 16 scoring variables and only a handful of studies had appeared concerning six other scores. Similarly, many interpretive postulates had not been addressed, and for many others, the data were equivocal because of problems in research design and/or data analysis. In fact, problems in design and/or analysis marked a very large number of the published research studies concerning the Rorschach.

About half of the nearly 4,000 articles that had appeared about the Rorschach were purportedly research works. However, when scrutinized against *contemporary* standards for adequacy of

design and/or data analysis, more than 600 were judged to be seriously flawed to the extent that the conclusions probably were not valid. Another group of nearly 800 articles also contained flaws that rendered them of questionable value. These evaluations should not be interpreted to mean that most Rorschach research was shoddy, incompetent, or illogical. The majority of studies reviewed were published between 1938 and 1958, an era in which the tactics of design and data analysis for *all* of psychology were continually being improved, so that works deemed adequate by the standards of one period might be considerably less sophisticated when compared with the methodology of another. This was especially the case for much clinical research. For instance, by 1970, 24 studies had been published addressing the issue of "blind analysis" in Rorschach interpretation. Although all were well intended, no more than nine of the 24 would meet contemporary standards for adequacy of design to test the issue. Similarly, 26 studies were published prior to 1970 focusing on the stimulus characteristics of the blots. Less than half would be considered to be free of flaws by contemporary standards.

The evaluation of Rorschach literature yielded nearly 600 research works that were methodologically sound and included appropriate data analysis. Collectively, those works provided a basis from which many elements of the various systems could be evaluated. The majority of these reported positive findings, but many also reported negative or equivocal results. In some instances, two or more adequately designed and analyzed studies reported contradictory findings. Many of these were works involving small samples, a finding that argued for replication using a larger number of subjects.

The most important project undertaken at the Foundation during the first two years was the creation of a data pool to permit direct comparison of the five Systems. By early 1970, that pool consisted of 835 Rorschach records that were submitted by 153 psychologists in response to a mailing request sent to 600 members of the Division of

Clinical Psychology of the American Psychological Association, and instructors of Rorschach courses at eight universities. The 835 were selected from more than 1,300 that were submitted.⁶ Each was accompanied by a questionnaire concerning the demographic features of the subject, purpose of the examination, and information concerning the training and test procedures of the examiner. The protocols included 204 from non-patients and 631 from a variety of inpatient and outpatient psychiatric groups.

When subdivided for the procedures of administration by system, the breakdown was: Klopfer, 329; Beck, 310; Rapaport, 78; Piotrowski, 66; and Hertz, 52. Numerous comparisons of the records of each system with the others were completed, and most of the results confirmed the main operational hypothesis that protocols of one system would be substantially different from those of the other systems in several ways. For instance, they differed significantly for the average number of responses. The records collected using the Klopfer (original Rorschach) instructions yielded a mean *R* of 23.9, as contrasted with mean *R*'s of 31.2 for the Beck instructions, 32.9 for the Hertz instructions, 33.8 for the Piotrowski instructions, and 36.4 responses if the Rapaport instructions were used.

By early 1971, the accumulated data tended to support three broad conclusions. First, the inter-system differences in procedures did produce five relatively different kinds of records. Second, each system included some scores, scoring criteria, and interpretive postulates for which no empirical support existed, or for which negative findings had been discovered. Third, each of the systems did include many empirically sturdy elements. In

fact, if any system were applied faithfully for administration, scoring, and interpretation, a considerable positive yield would result. On the other hand, some of the positive yield might be offset by the flaws of the system either in scoring or interpretation.

Those findings, plus those from the surveys concerning test use, led to a decision to alter the primary mission of the Foundation. The thrust was changed from one studying each system for its merits to one designed to integrate the features of all systems for which empirically defensible data existed or could be established. During the next three years, the protocol pool was increased to nearly 1,200, and more than 150 investigations or analyzes of various data sets were completed concerning the array of elements that were considered as possibilities for an integrated system.

In the early phases of the project, focus was on fundamental issues such as seating, instructions, recording, and inquiring responses, and the selection of the codes or scores to be used. The issue of interscorer reliability was broached so that no coding category was included in the "new" system unless a minimum .85 level could be achieved easily for groups of 10 to 15 scorers across at least 10 to 20 protocols in which the target score occurred with a reasonable frequency. This caused the initial rejection of many seemingly useful scores that have subsequently been added to the system by using a revision of the criteria for their application.

Each of dozens of interpretive postulates was explored, and no procedure or score was included in the new system unless it was supported by some validation data that seemed credible. Several new approaches to coding or scoring answers evolved, and several derivations of scores that contributed to interpretation were discovered. Computer technology aided enormously by permitting easy data storage and very complex analyzes, which only a decade earlier would have required an inordinate amount of time to be performed.

The basic ingredients of the *Comprehensive System* were published by Exner in 1974. The title

⁶ Those selected to receive the mailing were professionals whose place of work was shown in the *Directory* of the American Psychological Association to be a hospital or clinic. A total of 1,342 protocols were submitted, but 507 were discarded because of illegibility, no completed data sheet, no inquiry, or because the procedures used in taking the record were grossly different from those recommended in any of the five systems.

seemed appropriate because it represented the fact that the System was an integration of the hard won, empirically demonstrable wisdoms that marked the growth of the test from the time of Rorschach's monograph in 1921 to the most current thinking and research of the early 1970s. As a composite, it represents the work of all of the systematizers, plus the findings of many dedicated researchers who contributed to the study of a complex procedure used to generate information about personality organization and functioning.

Although the 1974 version of the *Comprehensive System* seemed reasonably complete, that was not the case. Even at that time, new projects were underway to collect additional data regarding some of the variables that had been included, and some of the decisions that had been made. New data, or the reanalysis of old data, led to many changes and additions to the System during the nearly three decades that have followed. At various intervals, it has seemed as if the System was finally all in place, but invariably, new concepts or findings have continued to push the project forward. The result is an approach to the use of Rorschach's test that is more sophisticated than in prior decades. It is a standardized method for using the test, which seems to be easily taught, manifests a respectable level of interscorer agreement, and includes interpretive premises that are grounded in reasonably sound validation data.

As a test, the Rorschach procedure prompts a complex set of psychological features into action. The coding of responses, and the derivation of scores from those codes, provide indirect information about those features. That information provides the substance from which a description can be created about the psychology of the individual.

REFERENCES

- Beck, S. J. (1936). Autism in Rorschach scoring: A feeling comment. *Character and Personality*, 5, 83-85.
- Beck, S. J. (1937a). Introduction to the Rorschach method: A manual of personality study. *American Orthopsychiatric Association Monograph*, 1.
- Beck, S. J. (1937b). Some recent research problems. *Rorschach Research Exchange*, 2, 15-22.
- Beck, S. J. (1944). *Rorschach's Test I: Basic processes*. New York: Grune & Stratton.
- Beck, S. J. (1945). *Rorschach's Test II: A variety of personality pictures*. New York: Grune & Stratton.
- Beck, S. J. (1952). *Rorschach's Test III: Advances in interpretation*. New York: Grune & Stratton.
- Beck, S. J. (1961). Personal communication.
- Behn-Eschenberg, H. (1921). *Psychische Schüleruntersuchungen mit dem Formdeutversuch*. St. Gallen, Switzerland: Zolliker & Cie.
- Binder, H. (1932). Die helldunkeldeutungen in psychodiagnostischen experiment von Rorschach. *Schweiz Archives Neurologie und Psychiatrie*, 30, 1-67.
- Bohm, E. (1957). *Lehrbuch der Rorschach Psychodiagnostik*. Bern, Switzerland: Huber.
- Exner, J. E. (1969). *The Rorschach systems*. New York: Grune & Stratton.
- Exner, J. E. (1974). *The Rorschach: A comprehensive system* (Vol. 1). New York: Wiley.
- Exner, J. E., & Exner, D. E. (1972). How clinicians use the Rorschach. *Journal of Personality Assessment*, 36, 403-408.
- Frank, L. K. (1939). Projective methods for the study of personality. *Journal of Psychology*, 8, 389-413.
- Freud, S. (1953a). The anxiety neurosis. In *Collected papers* (Vol. 1, pp. 76-106). London: Hogarth Press. (Original work published 1894)
- Freud, S. (1953b). Further remarks on the defense of neuropsychoses. In *Collected papers* (Vol. 1, pp. 155-182). London: Hogarth Press. (Original work published 1896)
- Freud, S. (1953c). Psychoanalytic notes on an autobiographical account of a case of paranoia. In *Collected papers* (Vol. 3, pp. 387-396). London: Hogarth Press. (Original work published 1911)
- Freud, S. (1955). Totem and taboo. In *Collected papers* (Vol. 3). London: Hogarth Press. (Original work published 1913)
- Hertz, M. R. (1936). *Frequency tables to be used in scoring the Rorschach Ink-Blot Test*. Cleveland, OH: Western Reserve University, Brush Foundation.
- Hertz, M. R. (1937). Discussion on "Some recent Rorschach problems." *Rorschach Research Exchange*, 2, 53-65.
- Hertz, M. R. (1939). On the standardization of the Rorschach method. *Rorschach Research Exchange*, 3, 120-133.

- Hertz, M. R. (1941). Rorschach: Twenty years after. *Rorschach Research Exchange*, 5, 90-129.
- Hertz, M. R. (1942). *Frequency tables for scoring Rorschach responses* (2nd ed.). Cleveland, OH: Western Reserve University Press.
- Hertz, M. R. (1952a). *Frequency tables for scoring Rorschach responses* (3rd ed.). Cleveland, OH: Western Reserve University Press.
- Hertz, M. R. (1952b). The Rorschach: Thirty years after. In D. Brower & L. E. Abt (Eds.), *Progress in clinical psychology*. New York: Grune & Stratton.
- Hertz, M. R. (1961). *Frequency tables for scoring Rorschach responses* (4th ed.). Cleveland, OH: Western Reserve University Press.
- Hertz, M. R. (1970). *Frequency tables for scoring Rorschach responses* (5th ed.). Cleveland, OH: Western Reserve University Press.
- Jackson, C. W., & Wohl, J. (1966). A survey of Rorschach teaching in the university. *Journal of Projective Techniques and Personality Assessment*, 30, 115-134.
- Jung, C. G. (1910). The association method. *American Journal of Psychology*, 21, 219-269.
- Jung, C. G. (1918). *Studies in word association*. London: Heineman.
- Klopfer, B. (1937). The present status of the theoretical development of the Rorschach method. *Rorschach Research Exchange*, 1, 142-147.
- Klopfer, B. (1961). Personal communication.
- Klopfer, B., Ainsworth, M. D., Klopfer, W. G., & Holt, R. R. (1954). *Developments in the Rorschach technique. I: Technique and theory*. Yonkers-on-Hudson, NY: World Books.
- Klopfer, B. and others. (1956). *Developments in the Rorschach technique. II. Fields of application*. Yonkers-on-Hudson, NY: World Books.
- Klopfer, B., & Kelley, D. (1942). *The Rorschach technique*. Yonkers-on-Hudson, NY: World Books.
- Klopfer, B., Meyer, M. M., Brawer, F. B., & Klopfer, W. G. (1970). *Developments in the Rorschach technique. III: Aspects of personality structure*. New York: Harcourt Brace Jovanovich.
- Klopfer, B., & Sender, S. (1936). A system of refined scoring symbols. *Rorschach Research Exchange*, 1, 19-22.
- Louitt, C. M. (1936). *Clinical psychology*. New York: Harper & Row.
- Louitt, C. M., & Browne, C. G. (1947). Psychometric instruments in psychological clinics. *Journal of Consulting Psychology*, 11, 49-54.
- Lubin, B. Wallis, R. R., & Paine, C. (1971). Patterns of psychological test usage in the United States 1935-1969. *Professional Psychology*, 2, 70-74.
- Morgan, C., & Murray, H. A. (1935). A method for investigating fantasies: The Thematic Apperception Test. *Archives of Neurology and Psychiatry*, 34, 289-306.
- Murray, H. A. (1938). *Explorations in personality*. New York: Oxford University Press.
- Piotrowski, Z. (1950). A Rorschach compendium: Revised and enlarged. In J. A. Brussel, K. S. Hitch, & Z. A. Piotrowski (Eds.), *A Rorschach training manual*. Utica, NY: State Hospitals Press.
- Piotrowski, Z. (1957). *Perceptanalysis*. New York: Macmillan.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Diagnostic psychological testing* (Vols. 1 & 2). Chicago: Yearbook Publishers.
- Rorschach, H., & Oberholzer, E. (1923). The application of the form interpretation test to psychoanalysis. *Zeitschrift für die Gesamte Neurologie und Psychiatrie*, 82, 240-274.
- Schafer, R. (1954). *Psychoanalytic interpretation in Rorschach testing*. New York: Grune & Stratton.
- Sundberg, N. D. (1961). The practice of psychological testing in clinical services in the United States. *American Psychologist*, 16, 79-83.
- Zulliger, H. (1941). Der Behn-Rorschach-Versuch (Be-Ro-Test). I. Band: Test, II. Band: Tafeln. Arbeiten z. angew. Psychiatrie Bd. 6. Bern, Switzerland: Verlag Hans Huber.

CHAPTER 3

Controversy, Criticism, and Decisions

As noted in the preceding chapter, Lubin, Wallis, and Paine (1971) collected data about test use through 1969, and found that the Rorschach ranked third and the TAT seventh among the 30 tests used most frequently in the clinical setting. In a 1982 replication of that survey, Lubin, Larsen, and Matarazzo (1984) found the Rorschach ranked fourth and the TAT fifth among the 30 tests listed. Similar findings were reported in 1995 by Watkins, Campbell, Nieberding, and Hallmark. Although these surveys indicate the popularity of the Rorschach and of projective methods, they fail to illustrate the extensive controversy that has swirled around projective techniques, and especially about the Rorschach, for more than a half century.

CORE ELEMENTS OF THE CONTROVERSY

Even though the Rorschach was *not* designed as a projective method, or developed in that context during the first two decades of use, it quickly became hailed as an important test in the projective movement as it gained momentum during the 1940s. This is not surprising because the nature of the test procedure, and characteristics of its stimuli, permit a broad range of responses. Often, the elaborations that a person includes when giving his or her responses can be very revealing about the individual and contribute to the test interpretation. During the 1940s, and into the 1950s, it was common for authors describing tests to differentiate *structured* versus *unstructured* tests. The

latter designation was used to identify tasks that permitted an almost unlimited variety of possible responses. Unstructured tests usually were described as disguised procedures, that is, the individual is rarely aware of the type of interpretation that will be made of his or her responses (Anastasia, 1954). It was a reasonable form of differentiation. However, during the 1950s, it became common to categorize psychological tests more simply, using either of two classifications: (1) *objective* or (2) *projective*.

The objective-projective dichotomy tended to foster a schism among many psychologists interested in measurement, individual differences, and personality assessment. Those committed to basic measurement principles became prone to align themselves with empirically based tests that were developed in accord with the fundamental standards of measurement. Those intrigued with a more idiographic approach to the study of persons were more disposed to embrace projective methodology and, with the exception of intelligence testing, used methods for which empirical support was less substantial or, sometimes, nonexistent.

The objective-projective differentiation, sometimes actively encouraged by those closely aligned with the projective psychology movement, gradually fomented two basic implications. One is that objective tests have been developed in accord with fundamental measurement principles, that is, they are scoreable, standardized, and have demonstrated credible reliability and validity. The second implication is that projective tests lack some or all of the measurement features, and that data

derived from them are interpreted more subjectively. A natural by-product of these implications is that projective tests are considerably less scientific than are objective tests.

Although there is evidence from which such conclusions can be defended, the dichotomy itself is grossly oversimplified. In reality, any stimulus situation *that is not structured to elicit a specific class of response*, as are arithmetic tests, true-false inventories, and the like, *may evoke* projection. This is independent of whether or not the basic rules of measurement have been used in developing the test, or if there are data concerning the scientific merits of a test. For instance, intelligence tests are regarded as being objective tests because they are structured and developed in a psychometric framework, but some intelligence tests include items, or whole sections, that permit open-ended forms of response.

Many psychological tests have been deliberately designed to permit a broad range of responses. The TAT is one of the best known, and is appropriately identified as a projective test because that is what it was designed to be. Other tests, designed to evoke projection, such as some sentence-completion tests, also may meet the standards for an objective test. For example, the sentence completion developed by Rotter and Rafferty (1950) includes an elaborate format for scoring, and has been sufficiently researched to establish extensive normative data and address the issues of reliability and validity successfully. It is a projective technique, yet it is also an objective test, and to force classification into one or the other of the two categories is very misleading.

The dichotomization of tests as objective or projective caused added focus on an older issue in psychology concerning individual differences. The phenomenon of individual differences has plagued psychologists since the inception of the discipline. During the nineteenth century, it was already creating problems for those seeking to establish scientific laws to account for behaviors in the areas of perception, memory, and learning, and led Wilhelm Wundt (1893) to issue a famous, but often

forgotten, caution to his colleagues, "there is no psychological law to which the exceptions are not more numerous than the agreements." The intrigue of psychology with the issues of personality and individual differences has varied substantially since that time.

Concerns with personality as a psychological entity developed much more recently than concerns with individual differences. Prior to the 1930s, the term *personality* was often used synonymously with psychopathology. It became conceptualized as an entity only when a movement called the *Psychology of Personality* began to gain interest during the 1920s. Concurrently, a marked interest in methods of personality evaluation took root, and by the early 1930s had become an important area in both theoretical and applied psychology. The area evolved rather rapidly, in spite of the fact the uniqueness of the individual continued as a stumbling block for both personality theorists and those in quest of nomothetically based rules that would accurately explain behaviors. During the next 15 to 20 years, the specialty of clinical psychology gradually became well regarded for the expertise that it offered about patients regarding issues of diagnosis and treatment planning.

That recognition was due in no small part to the fact that personality evaluation, or psychodiagnosis as it became called during the 1940s, typically involved a multimethod approach designed to collect and integrate nomothetic and idiographic data. The focus of the approach involves the study of people as individuals. It is based on the premise that people are like many others in some ways, like a few people in other ways, but also different from everyone else in special ways that mark each person as unique. Implicit in this process is the premise that information about an individual's assets, liabilities, traits, conflicts, and so on, will contribute in some significant way to his or her therapeutic well-being.

The usefulness of focusing extensively on individual differences through psychodiagnosis was called into question during the 1950s. In 1954,

Meehl published an important work, *Clinical versus Statistical Prediction*, that tended to define and perhaps broaden the nomothetic versus idiographic schism that was developing. He reviewed 20 studies, all but one of which showed that an actuarial method was equal to, or better than, the clinical technique, which customarily included the use of projective methods. He argued for an abandonment of the clinical approach to assessment, favoring less time-consuming techniques that are actuarially based, such as the MMPI, to allow clinicians more time for other important work, especially psychotherapy.

Later, Gough (1963) and Sawyer (1966) published surveys of predictive studies that appear to support Meehl's argument—although Gough did observe that no adequate test of the clinician's forecasting skills had yet been carried out. Holt (1958, 1970), in two rejoinders to the Meehl argument, pointed out that many of the studies cited by Meehl used extremely inadequate or even contaminated criteria. In his 1970 article, Holt called attention to the fact that another survey of predictive studies (Korman, 1968) reported positive findings for the clinical method. Holt noted, with a sense of dismay, that the Sawyer and Korman studies were published within two years of each other, but their respective bibliographies showed absolutely no overlap. That finding illustrates very well how a selective use of literature could be used to support almost any bias.

EARLY CRITICISMS OF THE RORSCHACH

The designation of the Rorschach as a projective test did not diminish efforts to establish its psychometric credibility. Beck and Hertz remained in the forefront among many researchers working toward that goal, and their efforts were joined by many who sought to demonstrate the empirical sturdiness of the test. By the early 1950s, some of that research had a positive yield. Both Beck and Hertz had published useful normative data, and each had also published actuarially based tables

for the discrimination of adequate form fit of responses. Nonetheless, as the Rorschach became conspicuously listed among the projective tests in the objective-projective dichotomy, the general implications concerning projective tests were routinely attributed to it. Criticism of the test began to grow, and some of it was clearly warranted.

By 1950, the Rorschach literature had burgeoned to more than 2,000 books and articles. Some were very sound research pieces relating to the validity of many of the scoring variables, but they constituted a very modest segment of the literature. Much of the literature consisted of clinical studies or were research works containing negative or contradictory findings. Critics of the test often cited the latter as evidence for concluding that the Rorschach was of little use if gauged against stringent scientific standards.

As the use of the Rorschach became more widespread, so too did scrutiny regarding its applications and the manner in which it was being researched. There is no doubt that many of the research studies included in the early Rorschach literature were inadequate in design and/or data analysis. Cronbach (1949) wrote a classic article in which he commented on the issue of research designs and focused extensively on guidelines for analyzing Rorschach data. He stressed the disadvantages of comparing means when analyzing data concerning many variables, and encouraged the analysis of frequency data to detect true differences among groups. He also emphasized the importance of addressing some issues by categorizing frequency data. As Murstein (1965, p. 355) pointed out, Cronbach's article had a considerable influence on Rorschach research "which rose several notches after its publication."

One segment of the Cronbach article concerned variations in *R* and the difficulties that presented for those analyzing data. Although Cronbach devoted only two of the 36 pages of his article to this issue, it, plus another study concerning *R* (Fiske & Baughman, 1953), frequently were cited to support the conclusion that Rorschach data are not readily subject to methods of statistical analysis

(Holtzman, Thorpe, Swartz, & Herron, 1961; Murstein, 1965). Other critics argued that, at the least, scores should be normalized in relation to R for purposes of analysis, or a partialing procedure to account for R should be included as a matter of routine when contending with Rorschach data. That position has tended to persist and probably is best summarized by Kinder (1992).

Actually, the sample of 289 protocols to which Cronbach referred in forming his comments, included about 25% of records in which R ranged from 5 to 19 responses, and another group, representing nearly 30% of the data set, contained R 's between 40 and 109 answers. The 790 protocol sample used by Fiske and Baughman (1953) from which to frame their comments, was subdivided into nine categories. The first included records in which R ranged from zero to nine, the second contained the protocols with R 's between 10 and 14, the third group with R 's between 15 and 19, and so on. The last group included records with R 's between 50 and 175. In effect, both samples allowed for much greater variation in R than occurs when a standard format is used to administer the test (Exner, 1992).

In part, the matter of variations in R was exacerbated by the fact that five different methods of administering the test were commonly used, leading to substantial differences in the average number of answers. The issue was made even more complex by the fact that none of the five systems had addressed the issues of brief or lengthy records. However, the matter of unequal R 's was only one source on which criticisms of the Rorschach were based during the 1950s and 1960s.

Many critics of the Rorschach—and of projective methods in general—were also critics of psychoanalytic theory and often naively linked the two. The erroneous assumption was that the process of projection, as formulated by Murray (1938), related directly to unconscious operations as defined in the Freudian concept (Lindzey, 1961; Sargent, 1945; Symonds, 1946; Wiggins, Renner, Clore, & Rose, 1971). In reality, very few

so-called projective methods are based on such a direct theoretical linkage, least of all the Rorschach. Nonetheless, many clinicians trained during the 1940s, 1950s, and 1960s were strongly imbued with psychodynamic concepts, and that model was commonly used as the framework for interpreting any test data. The tendency to do so in the clinical setting served to broaden the schism between those committed to a "global approach" to assessment and those who advocated a more actuarially based approach to assessment. Meehl's book (1954) indirectly served to increase the distaste of some for the Rorschach, even though the Rorschach was not the focal point of the work. Both Holt (1970) and Weiner (1972) noted that Meehl focused on prediction, whereas the major focus of the diagnostician is description and understanding. However, those kinds of arguments did little to dissuade critics, and it was natural for the Rorschach to become the centerpiece for criticism because, typically, it did have a nuclear role in the assessment routines of clinicians.

Much of the criticism directed at the Rorschach during the 1950s and into the 1970s focused on validation issues, and often it was inflamed by the fact that many Rorschach advocates overestimated the usefulness of the test, frequently making unrealistic claims about its efficacy. Some even likened it to an x-ray of the mind, in spite of a growing number of publications that reported contradictory or negative findings for issues such as diagnostic accuracy, reliability, and validity.

In retrospect, some of the criticisms were justified, but some were naive, often fomented from bias, ignorance, or simply a misunderstanding of the method and the principles that led to its exploration by Rorschach. The matter was made more complicated by the fact that both advocates and critics, and especially researchers, more or less ignored the fact that there were five markedly different approaches to the test, or technique as some preferred to call it. It was common to overlook or downplay those differences as being irrelevant to the larger issue of whether the method had merit.

In spite of the criticisms, the use of the Rorschach, in its various forms, continued to be widespread during the 1960s and into the 1970s. This was a period in which the very character of clinical psychology began to change extensively. Through the 1950s, the major role of the clinician was psychodiagnosis but, during the 1960s, the profession began to broaden its scope and role. New models of behavior and intervention became popular, and most clinicians found themselves more involved in planning and conducting intervention. Some universities reduced training in the use of tests for *assessment* (a term that gradually replaced psychodiagnosis) by the end of the decade, but in most clinical settings, *assessment* continued as an integral part in the life of the professional, and the Rorschach remained one of the standard methods used. Nonetheless, criticism of the Rorschach became more widespread during this period, and many openly judged its worth with contempt and advocated its abandonment as a test for clinical work (Jensen, 1958, 1965; Zubin, Eron, & Schumer, 1965).

NEWER ELEMENTS IN THE CONTROVERSY

During the past two or three decades, psychology and psychiatry, in their quest to appear as scientific as possible, have become less concerned with matters of individual differences than had been the case earlier. Continued research, plus new and improved methodology, has fomented the growth of personality assessment to reasonably sophisticated levels. However, this growth has not always been smooth. The emphasis on maintaining scientific discipline in psychology has sometimes created a sense of disdain between those committed to establishing nomothetically based rules to account for behavior, and those seeking ways to account for the idiography of individuals. Even those directly vested in personality research have often disagreed about whether it could be investigated as a series of traits or must be regarded as a unitary entity.

The trend away from concern for issues of individuality has gradually impacted more and more on the procedures used to reach diagnoses and formulate and/or implement treatment plans. Certainly, the fragmentation of the once reasonably homogeneous specialty of clinical psychology has contributed. The most marked de-emphasis on the uniqueness of the individual occurred when radical behaviorism became prominent among some practicing in clinical psychology. It brought with it the notion of the black box, and the message that there is no such thing as personality, or even if there is, it can not be measured through psychological testing. This movement created a new group of psychologists who not only avoid personality assessment, but campaign actively against it.

The tendency to neglect individual differences in treatment planning has also been afforded considerable impetus in psychiatry by the continually increasing emphasis on the biological basis of psychopathology. Pharmacological intervention is often touted as an appropriate substitute for some of the more traditional psychotherapeutic models of treatment. Even when it is proposed as an adjunctive method of treatment, the proposition is based on the argument that pharmacotherapy will reduce treatment time significantly and breed change more rapidly. As training programs in psychiatry have de-emphasized the tactics of individual therapy in favor of pharmacological methods, the door opened wider in psychology for an increase in training for psychotherapy. As a result, the new clinical psychology clearly focuses on treatments.

During this same era, the development of more sophisticated statistical procedures has reassured researchers that the issue of individual differences might be minimized or ignored by drawing conclusions based on laws of probability and the use of sometimes questionable estimation levels of significance. Theorists have tended to sidestep the issue of individual differences by resorting to esoteric generalizations. By choice, both theorists and empiricists have tended to preoccupy themselves with generalized truths. When a

particular characteristic or behavior appears to occur with a greater frequency in one class of individuals, as contrasted with other classes of individuals, a generalized theorem or law is set forth concerning *that class* of people. Theorems concerning classes of individuals, especially those who are troubled, become additive to the point that mythical classes of people are created that tend to ignore the individuality that marks each human being.

The quest to be as scientific as possible has also resulted in the expansion and revision of the *DSM* listings (1980, 1987, 1995, 2000) of characteristics regarding various classes of people that, in turn, have become accepted as sacred guidelines by many practitioners in applied psychology and psychiatry. These checklists of symptoms and behaviors are used to diagnostically classify people in distress. Essentially, the *DSMs* are bookkeeper manuals and those responsible for their formulation have been careful to disavow direct relationships between diagnostic categories and treatment. However, these cautions are often disregarded, and many practitioners make decisions regarding the selection of a treatment model by applying the formula that the composite of presenting symptoms and/or accurately derived diagnostic conclusions automatically identify the *adequate* treatment model.

The tendency to apply this formula has increased substantially during the past two decades because of another element that tends to disregard the individual, and that has become pervasively influential in the era of managed care. It is the remarkable accumulation of pharmacological and psychotherapeutic fads concerning disorders and their treatment. As a result, there is a marked tendency among practitioners in psychiatry and psychology to emphasize symptoms and develop rudimentary treatment plans based on the presentation of symptoms plus some modest history data. These treatment plans are usually defended on the premise that the symptoms identify what is wrong with the patient and that the methodology to treat the symptoms is readily available. A logical

conclusion is that a more thorough psychological assessment of the patient is unnecessary because it is time consuming, not cost effective, and will contribute little more to a treatment plan than is already obvious.

This form of logic ignores the individuality of the patient and disregards research findings concerning personality, psychopathology, and treatment efficacy. The assumption that symptoms identify the appropriate treatment tactics may be valid for some cases, but it always carries with it the significant risk of selecting an inappropriate treatment because it neglects individual differences and dismisses the fact that similar symptoms may have very different psychological origins. It also focuses largely on issues of immediate relief or symptom management and tends to ignore the issue of long-term treatment effectiveness. For instance, numerous articles concerning the treatment for depressive symptoms, using brief cognitive-behavioral intervention models, report considerable relief in reasonably short periods of time. Unfortunately, most fail to include follow-up data, thereby sidestepping the fact that the few longitudinal studies published concerning depression cite reasonably high rates of treatment failure, or relapse during the 12 to 24 months after treatment has been terminated (Evans et al., 1992; Gallagher-Thompson, Hanley-Peterson, & Thompson, 1990; Gortner, Gollan, Dobson, & Jacobson, 1998; Kovacs, Rush, Beck, & Hollon, 1981).

There is no doubt that various symptom-defined treatment models of intervention can be used successfully with many patients who have similar symptoms, but extrapolating from Wundt's 1893 caution, the failures may be more numerous than the successes. This is because a similarity in symptoms does not mean that a similarity in personality and/or psychological features exists, or that there is a homogeneous origin of the symptoms. Most any competently done personality assessment demonstrates this quite well. Various assessment approaches can be used to study people as individuals when treatment plans are being

formulated, and they are economically cost effective, especially if the long-term impact of treatment is included as an objective. Unfortunately, during the 1990s, the rapid growth of managed care models caused a marked limitation of services to mental health clients, including some restrictions on psychological testing (Backlar, 1996; Miller, 1996). C. Piotrowski, Belter, and Keller (1998) reported on the results of a survey sent to 500 randomly selected psychologists listed in the *National Registry of Health Service Providers in Psychology*. The authors note that, of the 137 persons who responded, the five tests listed as "most important" in current practice were the same five tests listed most frequently as "no longer used." Both lists included the Rorschach.

CONTEMPORARY CRITICISM OF THE RORSCHACH

When the Comprehensive System was unveiled in 1974, those aligned with a global approach to clinical assessment viewed it, at best, with caution. Stricker (1976) commented: "Had it been written in the glory years of the Rorschach it might have proven to be a work of great impact. Unfortunately, the tenor of the times makes the prognosis for any new Rorschach system poor, regardless of its merit." Another reviewer suggested, "the author . . . has unsuccessfully attempted to leave history in order to become part of it as Exner, the System Maker," but also noted that the work represents, "... an excellent how-to historically anchored manual on the Rorschach Psychodiagnostic Inkblot Test" (Allen, 1976). The Comprehensive System was not closely scrutinized for sometime by those directly involved in tests and measurement, but it was acknowledged as an "ambitious effort to put the Rorschach on a psychometrically sound basis," and noting that a uniform system, "permits comparability among the research findings of different investigators" (Anastasia, 1982).

As the system evolved, the psychometric properties of the test have been reasonably established,

and most of the other basic requirements for a psychological test have been met. Generally, it has been well received and its use has become relatively widespread throughout the Rorschach community. During the first 20 years after its appearance, most criticism of the system came from within the Rorschach community. For instance, some have criticized it as being overly weighted in favor of quantifiable features (scores, ratios, percentages, etc.), while failing to afford appropriate emphasis to, or even rejecting, some of the traditional qualitative approaches, that were commonplace during the height of the projective movement, to interpret Rorschach responses (Aronow, Reznikoff, & Moreland, 1994). Others have been irritated by the fact that the system has not become static. Many changes have occurred in the system as it has developed (Exner, 1978, 1986, 1991, 1993), and these have often frustrated those who have begun to feel comfortable in their knowledge of the system only to find that some calculations, criteria, or interpretive principles have been added, deleted, or modified.

During the first two decades after its publication, interest in the system, and in the Rorschach in general, appears to have waxed and waned in a manner that parallels the use of assessment to evaluate personality, study individual differences, reach diagnostic conclusions, or formulate treatment plans. Some of the older criticisms of the test, and especially quotes or paraphrases of Jensen's (1965) proclaiming that the Rorschach is a very poor test with no practical worth, have continued to appear from time to time in the literature (Dawes, 1994). However, more specific criticism of the test and of the system began to appear with greater frequency during the 1990s.

Nezworski and Wood (1995) questioned the validation data used to form interpretations regarding reflection responses and the egocentricity index. Subsequently, Wood, Nezworski, and Stejkal (1996) offered a more elaborate critique of the system in which they raised questions concerning interscorer agreement findings, and the validation data underpinning several variables or

indices in the System. They also questioned the possible integrity of some unpublished Foundation studies reported in various editions of this book that were not published separately in peer-review journals.

The Wood, Nezworski, and Stejkal critique sparked a dialogue in the literature concerning the merits, or lack thereof, of the Rorschach in general, and more specifically of the Comprehensive System. It prompted Meyer (1999) to organize a series of articles concerning the clinical utility of the test. Stricker and Gold (1999) have stressed the value of both nomothetic and idiographic approaches, depending on the objective of assessment. They suggest that indirect measures, such as the Rorschach, tend to be most useful when interest concerns unconscious, longitudinal, and structural dimensions of functioning. Viglione (1999) reviewed 138 research articles, published during the preceding 20 years, concerning numerous Rorschach variables and indices. He concluded that the Rorschach yields information about "how various life domains interact with the coping and psychology of the individual." He suggests that the test is especially useful for individualizing case conceptualizations and interventions and predicting or evaluating outcomes.

Hunsley and Bailey (1999) also reviewed considerable Rorschach literature and conclude that there is little scientific evidence to support the clinical utility of the Rorschach. They suggest that even if the test could provide valid information about personality structure, there is no replicated evidence to indicate such evidence would have a meaningful bearing on services, or improve treatment outcome. Hiller, Rosenthal, Bornstein, Berry, and Brunell-Neuleib (1999) presented a meta-analysis comparing criterion related validity evidence for the Rorschach and the MMPI. They found the unweighted mean validity coefficients were not reliably different. The MMPI had larger validity coefficients for studies using diagnoses and self-report measures as criterion variables, where the Rorschach had larger validity coefficients for studies using objective criterion

variables. Dawes (1999) noted that some approaches to the study of Rorschach variables may be inappropriate and suggested two methods for studying the incremental validity of a variable.

Ganellen (1996) compared the diagnostic efficiency of the MMPI, the MCMI-II, and the Rorschach. He found that all three are relatively comparable in their sensitivity to detecting depression but that the MMPI and MCMI-II have higher false positive rates than the Rorschach. He also noted that the Rorschach is more sensitive to the detection of psychotic disorders and suggested that the Rorschach indices are promising psychometric markers. Wood, Nezworski, Stejkal, Garven, and West (1999) challenged Ganellen's conclusions and suggest that there is no compelling empirical evidence supporting the efficacy of the Depression Index (DEPI). In turn, Ganellen (2001) argued that the Wood et al. characterization of empirical evidence concerning the DEPI should be viewed with caution and questions the objectivity with which Wood and his coworkers approached the subject.

Wood, Nezworski, Garb, and Lilienfeld (2001) cited findings concerning 123 nonpatients reported by Shaffer, Erdberg, and Haroian (1999) in which substantial differences exist for several variables when compared to the published sample of nonpatient data for the Comprehensive System. Wood and coworkers proceeded to collate data from 32 nonpatient samples of various sizes, most of which were collected as control groups for various studies. They report statistically significant differences for 14 variables between the collated data and the published sample of 600 nonpatients. They conclude that the data for the published sample are probably not representative of nonpatients and increase the likelihood of overdiagnosing psychopathology if they are used to identify deviations.

The Shaffer et al. (1999) findings concerning nonpatients prompted the initiation of a new project to collect nonpatient data (Exner, 2002). Findings for the first 175 persons tested are relatively similar to those in the published sample of

600 nonpatients (see Chapter 12). In another study related to criticism of the system, Meyer et al. (2002) examined the interrater reliability for coding among eight reasonably large data sets. Wood et al. (1996) had suggested that interscorer reliability may be poor, and argued that data presented in this work, and earlier editions of it, concerning percentages of agreement among coders are unsophisticated and misleading. Meyer's findings indicate that, across all samples, reliability coefficients are generally excellent, with intraclass correlation coefficients ranging from .82 to .97. However, they caution that the reliable use of the system is ultimately dependent on the coding skills of the user, and caution that coders should maintain a "vigilant stance" toward proper coding to avoid lapses and errors.

Weiner (2001), formulating comments mainly after a review of the Viglione (1999), Hiller et al. (1999), Hunsley and Bailey (1999), and Dawes (1999) articles, concludes that the Rorschach exemplifies the sound principles of a scientific test. He notes that there is a need for added validation data and longitudinal studies to examine personality development and change. He criticizes the Hunsley and Bailey conclusions, suggesting that they put forth unreasonable evidentiary requirements for the Rorschach. Conversely, Garb, Wood, Nezowski, Grove, and Stejkal (2001) offer support for the criticisms put forth by Hunsley and Bailey (1999), and take issue with the conclusions of Stricker and Gold (1999), Viglione (1999), and Hiller et al. (1999). They point out that temporal consistency data have not been offered for some variables in the system, and suggest that the Rorschach does not provide unique information for clinical diagnoses. They also challenge the incremental validity of the test and suggest that its use may not be appropriate for minorities because separate norms have not been developed for distinct ethnic groups.

Rosenthal, Hiller, Bornstein, Berry, and Brunell-Neuleib (2001) focused on the Garb et al. (2001) criticisms of the Hiller et al. (1999) Rorschach-MMPI meta-analyses. They presented

two new sets of meta-analytic results supporting their position. Viglione and Hilsenroth (2001) have also addressed several of the arguments and criticisms put forth by Hunsley and Bailey (1999) and Garb et al. (2001). They suggest that much recent criticism of the test is biased or without merit, and they support their position with a review of research in several areas, including reliability, incremental validity, normative data, cross-cultural applications, and clinical judgment. Hunsley and Bailey (2001) have reaffirmed their earlier position, arguing that many Rorschach scores do not have a solid theoretical foundation, and questioning the extent to which the test is used in a standardized manner. They maintain that even if the Rorschach, or any test, helps clinicians and patients to understand personality, this is not a useful end in itself. They posit that the clinical utility of any test must be measured by the extent to which it demonstrably improves patient outcome or lowers treatment attrition rates.

Meyer and Archer (2001) have presented a more elaborate meta-analysis of an earlier study (Parker, Hanson, & Hunsley, 1988). They conclude that the Rorschach can provide valid findings, noting validity coefficients that are similar to those for the MMPI and IQ measures. They emphasize that the Rorschach has both conceptual and empirical limitations, and discuss several issues that should be afforded priority. They include clarification of the Rorschach's locus of effectiveness, updating normative data, examining the reliability and adequacy of test administration, adding studies regarding temporal stability, researching understudied variables, and continuing to study issues of incremental validity and clinical utility.

AN OVERVIEW

Some of the contemporary comments and criticisms of the Rorschach, and of the Comprehensive System, may seem confusing, especially to the Rorschach novice. Certainly, as Weiner (2001) and Meyer and Archer (2001) have pointed out, some

of the criticisms have been justified because there are many issues concerning the Rorschach that have not been addressed sufficiently, and require much further research. However, as Viglione and Hilsenroth (2001) have indicated, many of the criticisms seemed marked by a sort of naivety, bias, or lack of understanding about the Rorschach. As noted earlier, these elements also marked many of the criticisms of the test leveled during the 1950s and 1960s.

Although the contemporary criticisms focus specifically on the Rorschach, it may be reasonable to suggest that they also tend to reflect an undercurrent of distaste that some in psychiatry, and especially in psychology, have for personality assessment in general. They tend to renew Meehl's 1954 argument for an abandonment of the clinical approach to assessment, in favor of less time-consuming, actuarially based techniques. In a broader perspective, some of the contemporary criticisms of the Rorschach seem aimed, at least indirectly, at the general use of psychological tests in clinical assessment. For instance, Hunsley and Bailey (1999, 2001) suggest that clinical utility should be defined as demonstrably improving patient outcome setting an admirable, but probably very unrealistic standard, which, at best, would be extremely difficult to demonstrate for any test or other assessment method.

DECISIONS CONCERNING THE USE OF THE RORSCHACH

The Rorschach may be included in various assessment approaches, but the decision to do so should be carefully thought through. Before laying hand to the Rorschach cards, the person responsible for the assessment must decide if the potential yield of the Rorschach is appropriate for, and relevant to the objectives of the assessment. As noted in Chapter 1, there are many assessment methods that can produce valid and useful descriptions of people. Thus, the decision about whether to use the Rorschach probably is best determined by evaluating the potential usefulness of a Rorschach

based description of a person, as contrasted with descriptions that could be formulated from other sources. Typically, data from interviews, observations, or self-report tests, yield descriptions that focus on symptoms and/or behaviors. Descriptions formulated from Rorschach findings focus much more on the psychological processes that generate symptoms and/or behaviors.

The decision to use the Rorschach will usually be predicated on the assumption that a psychological portrayal of a person, *as an individual*, will be useful to the assessment objectives and contribute to the well being of the client or the resolution of issues concerning the client. In that the range of psychological operations involved in producing Rorschach responses are similar to those that produce other behaviors (see Chapter 11), the findings from the test usually render a picture of the individual that gives emphasis to a unique mixture of assets, liabilities, and response tendencies. When a person is characterized in this framework, it becomes a source for addressing etiological issues and can serve as a guideline for identifying treatment objectives and selecting treatment methodology. It can also be relevant to many other important decisions concerning the individual.

It is important to emphasize that the Rorschach *does not* provide data from which answers to all questions can be derived. Rorschach findings may have little or no value in some assessment situations. For instance, when assessment questions focus on issues of intellectual functioning or questions of neurological involvement, the Rorschach is not a test of choice. Some elements in the Rorschach do correlate positively with indices of intelligence, but not to the extent that the Rorschach can be used as a reliable and valid substitute for an intelligence test. Similarly, there are some elements in the Rorschach that have a reasonably high probability of occurrence in some conditions of neurologically related dysfunctioning, but *none* have proven to be diagnostically differentiating except in those cases where the dysfunction is so severe that it can easily be detected by visually observing the individual. Thus,

if the primary purpose of the assessment relates to questions of intelligence or precise issues regarding cognitive functioning, the Rorschach may be useful only as an adjunct to provide some information concerning the personality of the individual.

As also noted in Chapter 1, there are instances in which a referring party is convinced that a "hardwired" relationship exists between the presenting symptoms of the person and the most appropriate treatment for those symptoms. When this is the case, it is doubtful that Rorschach findings, or probably any other findings concerning personality, will add anything to the already established conclusion about treatment. Likewise, there are cases in which the only purpose of the assessment is to aid in the selection of a diagnostic label. Although Rorschach findings can contribute to this decision, they are time consuming to accumulate and other assessment methods might achieve the "labeling" objective in a more cost efficient way.

Time is another issue that should be considered in making a decision about whether to use the Rorschach. Some introduction to the test is required, which usually takes less than 10 minutes, but exceptions to that estimate do occur. Most people complete the test in less than an hour but, again, there are exceptions and some people may take considerably longer. When a decision is made to include the Rorschach in an assessment routine, it is vitally important that the examiner has allotted sufficient time to go through the test procedure properly, and not feel pressured because of a time problem.

THE RORSCHACH AND THE TEST BATTERY

In some instances, the yield from the Rorschach may be sufficient to address the assessment issues that have been raised, but usually assessors will use multiple procedures. Typically, this involves the interview and a battery of tests. The latter sometimes may include as few as two or three tests, but may also include more than three. The

rationale for the use of a multitest method has been expounded considerably (Harrower, 1965; Z. Piotrowski, 1958; Rapaport, Gill, & Schafer, 1946). The premises underlying the approach are essentially twofold. The first is that no test is so broad in its scope to test everything. Different tests focus on different dimensions or functions of the person, and the test battery provides a broader database from which to evaluate the total person. Second, various tests do overlap to some extent, thereby affording the possibilities of cross-validating information derived from any single test. The multitest approach is argued to minimize error and maximize accuracy. Proponents of the test battery approach have suggested that it can be viewed as multiple samples of behavior, noting that data from a single instrument will generate greater speculation, whereas the composite of data from several instruments provides for greater certainty in conclusions.

Unfortunately, there remain far too many instances where a clinician perseveres in the use of the same series of tests, no matter what the appointed task, and regardless of what data become available during the testing process. This tactic of assessment harks back to the 1940s and 1950s when the primary role of the clinician was psychodiagnosis, and assessment routines often were not very flexible. Great chunks of data are not necessarily required for most assessment goals, and the amount of time consumed in assessment should not be disproportionate to the objectives of the process.

Another important decision that must be made by the assessor is the placement of each procedure in the process. For instance, Van de Castle (1964) found that test order could alter the incidence of human content responses in the Rorschach. Grisso and Meadow (1967) reported differences in WAIS performances depending on whether the WAIS was administered prior to or after the Rorschach. Exner and Hark (1980) found that Rorschachs administered after three hours of prior testing do have a significantly lower average number of responses than those administered after only 90 minutes of

prior testing. It is also probable, although not proven, that Rorschach productivity will be affected by almost any procedures in the assessment process that are stressful to the subject.

For example, persons with some cognitive dysfunctioning will often have difficulties on the Categories Test or the Tactual Performance Test of the Halstead-Reitan Battery. Thus, it is probably not wise to administer the Rorschach immediately after either of these procedures unless the person has performed quite well on them. Similarly, it is probably best not to administer the Rorschach immediately after the MMPI. Although the MMPI can yield very important information concerning a person, it can also produce a fatigue effect that could impact Rorschach performance.

Whenever a test battery approach is selected, the time factor can be critical. Usually, when neuropsychological issues are not involved, the total assessment process should be completed within a three-hour time frame. In contemporary assessment that would be targeted toward a reasonably full picture of the person, three tests might best be considered as forming the nucleus of the assessment procedure: (1) one of the Wechsler Intelligence Scales, (2) the Rorschach, and (3) the MMPI. Each is empirically sturdy, and each provides a wealth of information from which the well trained clinician can generate many important and meaningful hypotheses concerning an individual.

REFERENCES

- Allen, R. M. (1976). Review of the Rorschach: Comprehensive system. *Journal of Personality Assessment*, 40, 103-104.
- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: Author.
- American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders* (3rd ed., rev.). Washington, DC: Author.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- Anastasia, A. (1954). *Psychological testing*. New York: Macmillan.
- Anastasia, A. (1982). *Psychological testing* (5th ed.). New York: Macmillan.
- Aronow, E., Reznikoff, M., & Moreland, K. (1994). *The Rorschach technique*. Boston: Allyn & Bacon.
- Backlar, P. (1996). Managed health care: Conflict of interest in provider/client relationships. *Community Mental Health Journal*, 32, 101-110.
- Cronbach, L. J. (1949). Statistical methods applied to Rorschach scores. A review. *Psychological Bulletin*, 46, 393-429.
- Dawes, R. M. (1994). *House of cards: Psychology and psychotherapy built on myth*. New York: Free Press.
- Dawes, R. M. (1999). Two methods for studying the incremental validity of a Rorschach variable. *Psychological Assessment*, 11, 297-302.
- Evans, M. D., Hollon, S. D., DeRubeis, R. J., Piasecki, J., Grove, W. M., Garvey, M. J., et al. (1992). Differential relapse following cognitive therapy and pharmacotherapy for depression. *Archives of General Psychiatry*, 49, 802-808.
- Exner, J. E. (1978). *The Rorschach: A comprehensive system. Vol. 2: Current research and advanced interpretation*. New York: Wiley.
- Exner, J. E. (1986). *The Rorschach: A comprehensive system. Vol. 1: Basic Foundations* (2nd ed.). New York: Wiley.
- Exner, J. E. (1991). *The Rorschach: A comprehensive system. Vol. 2: Interpretation* (2nd ed.). New York: Wiley.
- Exner, J. E. (1992). R in Rorschach research: A ghost revisited. *Journal of Personality Assessment*, 58, 245-251.
- Exner, J. E. (1993). *The Rorschach: A comprehensive system. Vol. 1: Basic Foundations* (3rd ed.). New York: Wiley.
- Exner, J. E. (2002). A new nonpatient sample for the Rorschach comprehensive system: A progress report. *Journal of Personality Assessment*, 78, 391-404.
- Exner, J. E., & Hark, L. I. (1980). *Frequency of Rorschach responses after prolonged cognitive testing*. Rorschach Workshops (Study No. 271, unpublished).
- Fiske, D. W., & Baughman, E. E. (1953). Relations between Rorschach scoring categories and the total number of responses. *Journal of Abnormal and Social Psychology*, 48, 25-32.

- Gallagher-Thompson, D., Hanley-Peterson, P., & Thompson, L. (1990). Maintenance of gains versus relapse following brief psychotherapy. *Journal of Consulting and Clinical Psychology, 58*, 371-374.
- Ganellen, R. J. (1996). Comparing the diagnostic efficiency of the MMPI, MCMI-II, and Rorschach: A review. *Journal of Personality Assessment, 67*, 219-243.
- Ganellen, R. J. (2001). Weighing evidence for the Rorschach's validity: A response to Wood et al. (1999). *Journal of Personality Assessment, 77*, 1-15.
- Garb, H. N., Wood, J. M., Nezworski, M. T., Grove, W. M., & Stejkal, W. J. (2001). Towards the resolution of the Rorschach controversy. *Psychological Assessment, 13*, 433-448.
- Gortner, E. T., Gollan, J. K., Dobson, K. S., & Jacobson, N. S. (1998). Cognitive-behavioral treatment for depression: Relapse prevention. *Journal of Consulting and Clinical Psychology, 66*, 377-384.
- Gough, H. G. (1963). Clinical versus statistical prediction in psychology. In L. Postman (Ed.), *Psychology in the making*. New York: Knopf.
- Grisso, J. T., & Meadow, A. (1967). Test interference in a Rorschach-WAIS administration sequence. *Journal of Consulting Psychology, 31*, 382-386.
- Harrower, M. (1965). Differential diagnosis. In B. Wolman (Ed.), *Handbook of clinical psychology*. New York: McGraw-Hill.
- Hiller, J. B., Rosenthal, R., Bornstein, R. F., Berry, D. T. R., & Brunell-Neuleib, S. (1999). A comparative meta-analysis of Rorschach and MMPI validity. *Psychological Assessment, 11*, 278-296.
- Holt, R. R. (1958). Clinical and statistical prediction: A reformulation and some new data. *Journal of Abnormal and Social Psychology, 56*, 1-12.
- Holt, R. R. (1970). Yet another look at clinical and statistical prediction: Or, is clinical psychology worthwhile? *American Psychologist, 25*, 337-349.
- Holtzman, W. H., Thorpe, J. S., Swartz, J. D., & Heron, E. W. (1961). *Inkblot perception and personality*. Austin: University of Texas Press.
- Hunsley, J., & Bailey, J. M. (1999). The clinical utility of the Rorschach: Unfulfilled promises and an uncertain future. *Psychological Assessment, 11*, 266-277.
- Hunsley, J., & Bailey, J. M. (2001). Whither the Rorschach? An analysis of the evidence. *Psychological Assessment, 13*, 472-485.
- Jensen, A. R. (1958). Personality. *Annual Review of Psychology, 9*, 395-422.
- Jensen, A. R. (1965). Review of the Rorschach Inkblot Test. In O. K. Buros (Ed.), *The sixth mental measurements yearbook*. Highland Park, NJ: Gryphon Press.
- Kinder, B. N. (1992). The problems of R in clinical settings and in research: Suggestions for the future. *Journal of Personality Assessment, 58*, 252-259.
- Korman, A. K. (1968). The prediction of managerial performance. *Personnel Psychology, 21*, 295-322.
- Kovacs, M., Rush, J., Beck, A. T., & Hollon, S. D. (1981). Depressed outpatients treated with cognitive therapy or pharmacotherapy. *Archives of General Psychiatry, 38*, 33-39.
- Lindzey, G. (1961). *Projective techniques and cross-cultural research*. New York: Appleton-Century-Crofts.
- Lubin, B., Larsen, R. M., & Matarazzo, J. D. (1984). Patterns of psychological test usage in the United States 1935-1982. *American Psychologist, 39*, 451-454.
- Lubin, B., Wallis, R. R., & Paine, C. (1971). Patterns of psychological test usage in the United States: 1935-1969. *Professional Psychology, 2*, 70-74.
- Meehl, P. E. (1954). *Clinical versus statistical prediction*. Minneapolis: University of Minnesota Press.
- Meyer, G. J. (1999). Introduction to the special series on the utility of the Rorschach in clinical assessment. *Psychological Assessment, 11*, 235-239.
- Meyer, G. J., & Archer, R. (2001). The hard science of Rorschach research: What do we know and where do we go? *Psychological Assessment, 13*, 486-502.
- Meyer, G. J., Hilsenroth, M. J., Baxter, D., Exner, J. E., Fowler, J. C., Piers, C. C., et al. (2002). An examination of interrater reliability for scoring the Rorschach comprehensive system in eight data sets. *Journal of Personality Assessment, 78*, 219-274.
- Miller, I. J. (1996). Managed care is harmful to outpatient mental health services: A call for accountability. *Professional Psychology: Research and Practice, 27*, 349-363.
- Murray, H. A. (1938). *Explorations in personality*. New York: Oxford University Press.
- Murstein, B. I. (1965). *Handbook of projective techniques*. New York: Basic Books.
- Nezworski, M. T., & Wood, J. M. (1995). Narcissism in the comprehensive system for the Rorschach. *Clinical Psychology: Science and Practice, 2*, 179-199.
- Parker, K. C. H., Hanson, R. K., & Hunsley, J. (1988). MMPI, Rorschach, and WAIS: A meta-analytic

- comparison of reliability, stability, and validity. *Psychological Bulletin*, 103, 367-373.
- Piotrowski, C., Belter, R. W., & Keller, J. W. (1998). The impact of "managed care" on the practice of psychological testing: Preliminary findings. *Journal of Personality Assessment*, 70, 441-447.
- Piotrowski, Z. A. (1958). The psychodiagnostic test battery: Clinical application. In D. Brower & L. E. Abt (Eds.), *Progress in clinical psychology* (Vol. 3). New York: Grune & Stratton.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Diagnostic psychological testing* (Vol. 2). Chicago: Yearbook Publishers.
- Rosenthal, R., Hiller, J. B., Bornstein, R. F., Berry, D. T. R., & Brunell-Neuleib, S. (2001). Meta-analytic methods, the Rorschach, and the MMPI. *Psychological Assessment*, 13, 449-451.
- Rotter, J. B., & Rafferty, J. E. (1950). *Manual: The Rotter Incomplete Sentences Blank*. New York: Psychological Corporation.
- Sargent, H. (1945). Projective methods: Their origins, theory, and application in personality research. *Psychological Bulletin*, 42, 257-293.
- Sawyer, J. (1966). Measurement and prediction, clinical and statistical. *Psychological Bulletin*, 66, 178-200.
- Shaffer, T. W., Erdberg, P., & Haroian, J. (1999). Current nonpatient data for the Rorschach, WAIS-R, and MMPI-2. *Journal of Personality Assessment*, 73, 305-316.
- Stricker, G. (1976). The right book at the wrong time. *Contemporary Psychology*, 21, 24-25.
- Stricker, G., & Gold, J. R. (1999). The Rorschach: Toward a nomothetically based, idiographically applicable configurational model. *Psychological Assessment*, 11, 240-250.
- Symonds, P. M. (1946). *The dynamics of human adjustment*. New York: Appleton-Century-Crofts.
- Van de Castle, R. L. (1964). Effect of test order on Rorschach human content. *Journal of Consulting Psychology*, 28, 286-288.
- Viglione, D. J. (1999). A review of recent research addressing the utility of the Rorschach. *Psychological Assessment*, 11, 251-265.
- Viglione, D. J., & Hilsenroth, M. J. (2001). The Rorschach: Facts, fictions, and future. *Psychological Assessment*, 13, 452-471.
- Watkins, C. E., Jr., Campbell, V. L., Nieberding, R., & Hallmark, R. (1995). Contemporary practice of psychological assessment by clinical psychologists. *Professional Psychology: Research and Practice*, 26, 54-60.
- Weiner, I. B. (1972). Does psychodiagnosis have a future? *Journal of Personality Assessment*, 36, 534-546.
- Weiner, I. B. (2001). Advancing the science of psychological assessment: The Rorschach Inkblot Method as exemplar. *Psychological Assessment*, 13, 423-432.
- Wiggins, J. S., Renner, K. E., Clore, J. L., & Rose, R. J. (1971). *The psychology of personality*. Reading, MA: Addison-Wesley.
- Wood, J. M., Nezowski, M. T., Garb, H. N., & Lilienfeld, S. O. (2001). The misperception of psychopathology: Problems with the norms of the comprehensive system for the Rorschach. *Clinical Psychology: Science and Practice*, 8, 350-373.
- Wood, J. M., Nezowski, M. T., & Stejkal, W. J. (1996). The comprehensive system for the Rorschach: A critical examination. *Psychological Science*, 7, 3-10.
- Wood, J. M., Nezowski, M. T., Stejkal, W. J., Garven, S., & West, S. G. (1999). Methodological issues in evaluating Rorschach validity: A comment on Burns and Viglione (1996), Weiner (1996), and Ganellen (1996). *Assessment*, 6, 115-129.
- Wundt, W. (1893). *Logik. Zweiter Band. Vol. 2: Methodenlehre* (2nd rev. ed.). Stuttgart, Germany: Verlag Enke.
- Zubin, J., Eron, L. D., & Schumer, F. (1965). *An experimental approach to projective techniques*. New York: Wiley.

PART TWO

**Administration and
Scoring the Rorschach**

CHAPTER 4

Rorschach Administration: Decisions and Procedures

Before using the Rorschach cards in the testing situation, the person responsible for the assessment must make a decision about whether the Rorschach is appropriate for the task at hand. The Rorschach *does not* provide data from which answers to all questions can be derived. The data that unfold from the test represent a complex specimen of behaviors (responses to 10 inkblot figures) that, when scored and studied for its apparent idiosyncrasies, can be translated into a series of descriptive statements concerning the individual. The issue for the assessor is whether such a description will be useful, either to the client being evaluated, or to the person who has requested the assessment.

Descriptions generated from Rorschach data can be lengthy, focusing on features such as response tendencies, affectivity, cognitive operations, motivations, preoccupations, and personal and interpersonal perceptions. Usually, the description will include reference both to overt and covert behaviors, the characterization of either being determined mainly by the richness of the protocol. Many statements may be made with considerable sureness, whereas others may be more speculative. Most will represent the person as he or she is, rather than how he or she may have been or will be. It is common for the description to include some information concerning etiological factors, and possibly to offer predictions, but, generally, these statements are derived less directly from the data of the protocol. More likely they are

the product of using inductive and deductive logic to integrate the data from the record with other available information concerning the person. As such, they are more speculative, relying heavily on the accumulated knowledge of the interpreter regarding personality, response styles, psychopathology, and behavior.

Rorschach findings can be used legitimately to speculate about the past or the future and, by piecing together data concerning the variety of assets and liabilities of the subject, can lead to logical recommendations about intervention objectives and alternatives. Similarly, an evaluation of the apparent strengths and/or relationships of certain response tendencies can generate logical speculation about the chronicity, or even the origins, of such tendencies.

In good assessment practice, it follows that the assessor will use procedures appropriate to the questions for which answers are being sought. For instance, questions concerning parent interaction, religious preference, hobbies, supervisor or teacher ratings, sibling relationships, sexual preference, or the frequency of sexual activity can be relevant in some cases. Any or all of these may be important questions, but, at best, most Rorschach data would be only indirectly related to any of them. There are much better methods than the Rorschach to gain this kind of information. A good interview or a thorough social history should provide most of it. Just as questions of this sort are inappropriate to the Rorschach, so too are certain

classes of prediction, such as success or attrition in some types of training, marital success, ultimate family size, length of hospitalization, or the probability of parole violation. Most of these are intelligent questions and the well-equipped psychologist, given appropriate information and adequate criterion measures, might attack them with considerable success, *but not from the Rorschach alone, and possibly not using the Rorschach at all.*

Other assessment questions are often asked that may seem more compatible with the Rorschach method but are not necessarily so. These concern issues of intellectual functioning and problems of neurological involvement. Both have been considered in research with the Rorschach and some positive relationships have been found. Some elements in the Rorschach do correlate positively with indices of intelligence, but not to the extent that the Rorschach can be used as a reliable and valid substitute for an intelligence test. Similarly, there are some elements in the Rorschach that have a reasonably high probability of occurrence in some conditions of neurologically related dysfunctioning, but *none* have proven to be diagnostically differentiating except in those cases where the dysfunction is so severe that it can easily be detected by visually observing the subject. Thus, if the primary purpose of the assessment relates to questions of intelligence or cognitive functioning, the Rorschach is not the test of choice. It may be useful in the overall assessment of a person, but only as an adjunct to provide some information concerning the psychological organization of the individual if that seems relevant.

THE RORSCHACH AND THE TEST BATTERY

Ordinarily, when the Rorschach is selected for use, it will be part of a multimethod approach to assessment. The approach may include as few as two or three tests, but, not uncommonly, it will comprise more than three, and often more than five. The rationale for the use of the multimethod

approach has been expounded considerably (Rapaport, Gill, & Schafer, 1946; Piotrowski, 1958; Harrower, 1965). The premises underlying the approach are essentially twofold. The first is that no test is so broad in its scope to test everything. Different tests focus on different dimensions or functions of the individual, and a multimethod approach provides a broader database from which to evaluate the *total* person. Second, various tests do overlap to some extent, thereby affording the possibilities of cross-validating information derived from any single test. The multi-method procedure is argued to minimize error and maximize accuracy. Proponents of this approach have suggested that it can be viewed as multiple samples of behavior, noting that data from a single instrument will generate greater speculation, whereas the composite of data from several instruments provides for greater certainty in conclusions and can be essential for some kinds of descriptive or predictive conclusions (Holt, 1958, 1970).

The positions favoring the multimethod approach have been challenged in several studies (Sarbin, 1943; Kelly & Fiske, 1950; Gage, 1953; Kostlan, 1954; Giedt, 1955; Garb, 1984). Each suggest that clinicians often do not use all of the information available to them, or are prone to weigh some segments of data inordinately. These critics also argue that a ceiling of predictive accuracy is usually reached quickly, and adding more data provides only slight, if any, increase in the predictive correlation. There are studies that appear to refute these criticisms about the multimethod approach, demonstrating that it does work well in the clinical situation (Vernon, 1950; MacKinnon, 1951; Stern, Stein, & Bloom, 1956; Luborsky & Holt, 1957). In each, validity increased as the data increased.

Whenever the Rorschach is included as part of a multimethod assessment, another decision must be made concerning the placement of the test in the process. For instance, Van de Castle (1964) found that test order could alter the incidence of human content responses in the Rorschach. Grisso and Meadow (1967) reported differences in WAIS performances depending on

whether the WAIS was administered prior to or after the Rorschach. Exner and Hark (1979) studied 200 WAIS records, 100 of which were administered prior to the Rorschach and 100 administered after the Rorschach. No significant differences were found for any of the WAIS subtest scores or for the distributions of Rorschach scores. Nonetheless, good judgment should be exercised in the placement of the test in the assessment process.

For example, Exner and Hark (1980) found that Rorschachs administered after three hours of prior testing do have a significantly lower average number of responses than those administered after only 90 minutes of prior testing. It is also probable, although not proven, that Rorschach productivity will be affected by almost any procedures in the assessment process that are stressful to the subject. For instance, subjects with some cognitive dysfunctioning will often have difficulties on the Categories Test or the Tactual Performance Test of the Halstead-Reitan Battery. Thus, it is probably not wise to administer the Rorschach *immediately* after either of these procedures unless the subject has performed quite well on them. Similarly, it is probably best not to administer the Rorschach *immediately* after the MMPI. Although the MMPI can yield very important information concerning a person, it can also produce a fatigue effect that could impact Rorschach performance.

Whenever a multimethod test approach is used, the time factor can be critical. Usually, if neuropsychological issues are not involved, the total procedure can be completed within a three-hour time frame. In contemporary assessment, targeted toward developing a reasonably broad picture of the person, three tests might best be considered as forming the nucleus of the procedure: (1) one of the Wechsler Intelligence Scales, (2) the Rorschach, and (3) the MMPI. Each is empirically sturdy, and each provides a wealth of information from which the adept clinician can generate many important and meaningful hypotheses and conclusions about the client.

PROCEDURES OF ADMINISTRATION

Once the decision has been made to use the Rorschach, it is vitally important that the testing be done properly. There is no way to overemphasize the importance of proper test administration. It is a reasonably straightforward procedure, but it does require skill, sensitivity, and good judgment. It is a procedure that can be botched easily by those who are unprepared or unsure of themselves, or by those who approach it in a casual manner. Factors such as seating, instructions, recording responses, and inquiring responses are all critical. When reasonably standard procedures concerning each of these factors are followed faithfully, the result should be an interpretively reliable and valid protocol. However, any violation of the standard procedures can influence several elements of the test, especially the number of answers given and the articulations by the client concerning the characteristics of responses. Such alterations can, in turn, present a less clear or even confusing picture of the individual.

Seating

Seating is very important and *never* should be face-to-face. Most examiners choose to sit next to the client at a table, but some prefer to arrange two comfortable chairs side-by-side and work with a clipboard, with materials on a small table next to the examiner, away from the client. There are two reasons for the side-by-side seating. The first, and most important, is to reduce the effects of inadvertent and unwanted cues from the examiner that may influence the subject. The second is that the side-by-side position affords the examiner a much better view from which to see the features of the blot as they are referred to by the client.

Rorschach was interested in viewing the figures so that he could more easily note the features referred to by subjects, and he used a side-by-side seating. He probably was not very aware of examiner influence issues, which also were not of great concern to some of those who

extended his work. Klopfer and Hertz systematically used the side-by-side seating. Bohm recommended that the examiner sit at a right angle to the client or sit side-by-side. Piotrowski recommended the side-by-side position, but noted that it should not be used if it necessitated a change in the regimen used in interviewing or prior testing. Beck preferred to sit behind the client, and Rapaport recommended a face-to-face seating on the assumption that it is the most natural for interviewing and testing. Actually, there is no psychological test that *requires* the face-to-face arrangement. Even when materials must be laid before the subject, as in some intelligence testing, the examiner can sit next to the client.

The impact of the examiner, or cues given by the examiner, should not be regarded lightly in any testing situation, and especially when the Rorschach is involved. Coffin (1941) was among the first to note this potential by demonstrating that when unstructured elements, intended to provoke projection, exist in the situation, an increase in the individual's susceptibility to influence or suggestions is likely to occur. Schachtel (1945) was among the first to offer a major conceptual position concerning this element. He stressed the client's problem in reacting to the test situation, noting that it includes apparent freedom, yet simultaneous control, and is compounded by the relationship between the examiner and client. He suggested that the client tends to create a "subjective definition" of the situation. Schafer (1954) extended this idea considerably, emphasizing the interaction between the client and the dynamics of the situation. He suggested that factors such as required levels of communication, violation of privacy, the lack of situational control, and the danger of premature self-awareness arouse anxiety and defensiveness from which specific reactions to the examiner evolve. Neither Schachtel nor Schafer posited that the Rorschach performance can be altered completely by the examiner-client relationship, but both warned that many of the test variables can be affected.

Research on examiner influence has yielded some important findings. Lord (1950) used three female examiners in a counterbalanced design to test 36 male subjects. Each subject was tested three times, once by each of the examiners who varied their examiner roles across three models. One was designed to make the subject feel accepted and successful, a second to make the subject feel rejected and a failure, and the third a more standard procedure of affective neutrality. Her results were clouded by the complexity of the retest design, but many significant differences did occur across the different rapport models. However, the largest and most frequent differences occurred across examiners, regardless of the rapport model that they employed.

Baughman (1951) studied the protocols obtained from 633 adults by 15 examiners. He found that the records obtained by most of the examiners were highly comparable, but records obtained by some examiners continually deviated quite markedly. He attributed those deviations to variations in procedure *or* to the examiner-client relationship. Gibby, Miller, and Walker (1953) also found substantial differences among examiners for length of protocol and certain classes of scores, especially pure form, color, and shading.

Masling (1965) hypothesized that unintentional reinforcement by examiners could be a major factor underlying the observation that subjects produce different responses for different examiners. He created an especially clever design to test this proposition, using 14 graduate students, naive to the Rorschach, who volunteered for special training in the test that would be quick and efficient. Randomized into two groups, all received identical instruction except that one group was given the set that experienced examiners always elicit more human than animal responses. The second group were given the opposite set. After the training sessions were completed, each student tested two people. The sessions were audio recorded with the expectancy of finding evidence for verbal conditioning by the student examiners. The two groups

did differ in the predicted direction for the ratio of human to animal responses, *but no evidence* was found for verbal conditioning. Masling logically concluded that the examiners influenced clients with postural, gestural, and facial cues.

Exner, Leura, and George (1976) used a modification of the Masling design to test the impact of seating on the outcome. They trained 24 student volunteers, randomized into four groups of six each, to administer the test. Two of the groups used a face-to-face seating, whereas the second two groups were trained to sit side-by-side. One face-to-face group and one side-by-side group were given the set that competent examiners obtain more human than animal responses, and the other two groups were set to believe the opposite. After the training was complete, each student examiner tested three subjects and the sessions were videotaped. The two groups using the face-to-face seating did differ from each other in the predicted direction for the ratio of human to animal responses, and behavioral ratings of the videotapes confirmed Masling's hypothesis that more postural, gestural, and facial cues would occur when the person gave a response related to the set. Similar differences in the behavioral ratings for postural, gestural, and facial activity were found for the two groups giving the test using the side-by-side seating, *but they did not differ for the ratio of human to animal responses*.

The foregoing should not be interpreted to suggest that all, or most all Rorschach variables can easily be altered through some subtle set given either to the examiner or the client. Exner (1980), and Haller and Exner (1985), found the distributions of most scores do not differ even though persons are instructed to give different responses in a retest administered a few days after they had taken the test for the first time. In the same context, Fosberg (1938) found no major differences in a retest design in which subjects were asked to give their best and worst impressions. Carp and Shavzin (1950) used the same technique and obtained

similar results. Similarly, the basic features of the protocol do not change as a product of ego-altering sets (Cox & Sarason, 1954); by requests to respond as quickly as possible (Williams, 1954); when the test is introduced as one of imagination (Peterson, 1957); or when the person is led to believe that there are right and wrong answers (Phares, Stewart, & Foster, 1960).

Even when the face-to-face position is used, some variables are not affected when sets are given to examiners concerning desirable responses. In two studies (Strauss, 1968; Strauss & Marwit, 1970) examiners were set to expect records in which a higher number of human movement (*M*), or a higher number of chromatic color responses (*FC*, *CF*, *C*) would occur, and also created an expectancy for long or short records. The results indicate no significant differences for any of the sets. On the other hand, Goodman (1979) found that more experienced examiners will generally be rated as warmer in their interactions with a client, and will also be more likely to obtain records in which at least an average number of answers are given.

It would be folly to assume that the side-by-side seating eliminates all examiner influence, but it does reduce the prospect of the individual being influenced inordinately by the nonverbal behaviors of the examiner, and this is probably true of any test. Unfortunately, the accumulated information concerning behavior modifying techniques has made considerably less impact on assessment procedures than should logically have been the case. The examiner who fails to weigh the potential impact of those behaviors in the assessment situation only makes his or her task more difficult and may even provide a disservice to the client.

Introducing the Test

No special elaboration concerning the Rorschach should be required *if the person has been prepared properly for the overall assessment process*. In most cases, this will be done after a relatively brief

interview, during which the examiner seeks to ensure that the person has a reasonable awareness of the purpose of the assessment. Most people are aware of the general purpose of assessment but, unfortunately, much of that awareness includes some negative or erroneous assumptions. In instances when a person is self-referred, the responsibility for clarifying the purpose will rest with the examiner. In cases where the individual is referred for assessment by someone else, it is the responsibility of that person to explain why the referral has been made but, often, that does not occur. Many clients are not well prepared by those who refer them, and examiners should take some time to ensure that the client is not likely to be harboring negative or erroneous assumptions about the assessment process. In that context, it is very important for the examiner to explore whatever set the person may have about the purpose for the assessment and, provide the client with an introductory overview of the procedures to be used, including the Rorschach.

The purpose of the overview about procedures is to ease any mistrust or anxiety that the person may have about the situation. But beyond that, the client is entitled to know what will be happening, what will be done with the results, when they will be available, who will receive them, and what kind of feedback can be expected and who will provide it. The routine should be honest, but the description of the procedures need not be overly elaborate. The purpose is to describe the procedures, *not how they are interpreted*. For example, if one of the Wechsler Scales is planned as a part of the routine, the examiner might say, "One of the tests we will be doing has several parts. In one I'll ask you to remember some numbers, in another I'll ask you to create some designs using some blocks, in another I'll ask you to tell me what different words mean, and so on."

In the course of the overview, a statement such as, "And one of the tests we will be doing is the inkblot test, the Rorschach. Have you ever heard of it, or have you taken it?" When a person implies that they have some awareness about the

Rorschach, the examiner should take time to explore what the person knows, or what they think they know about it. The Rorschach, or facsimilies of it, have appeared in various media, usually cartoons, movies, or television, and the manner in which the figures have been discussed or displayed often creates erroneous sets about the test. It may be necessary to correct false impressions. Usually, this is done easily with a brief, honest explanation such as, *It is a test that gives us some information about the characteristics of people, and by having that information we can. . .* The completion of the statement should relate to the reason for the assessment (*plan your treatment better; understand your problem better; make some recommendations that your doctor has requested; get some idea about how your treatment is progressing, etc.*). If the person is naive about the Rorschach, typically, it is best to simply indicate that, *It's just a series of inkblots that I will be showing you and ask what they look like to you.*

The pretest procedures described are applicable for almost all persons being evaluated, including young children. However, some children may be so hyperactive or resistive that they are difficult to manage easily during the assessment routine. For many such youngsters, the Rorschach may not be an appropriate test. If the Rorschach is deemed important, it may be necessary to alter the introduction and/or the seating. Some youngsters may prefer to stand or sit on the floor for most of the testing. Frequently, children have very short attention spans and like to proceed as quickly as possible with the task at hand. In such cases, the examiner should use good common sense about any deviations from standard procedures and be acutely aware that altered procedures are not common.

A cooperative working relationship with any client is an absolute requirement when using the Rorschach, and this is especially true when working with children. It is often difficult for a young child to endure lengthy periods of testing, even if a good relationship has been established. If several tests are to be used, the testing times should

be planned realistically. The average adult will usually complete the Rorschach in 40 to 60 minutes. Young children usually take less time, with those under the age of 10 usually averaging between 30 and 45 minutes.

Assuming that the seating is appropriate, and the client has been prepared for testing, the procedure of administering the Rorschach becomes relatively straightforward. A brief introduction to the client is in order (e.g., *Now we are going to do the inkblot test*). The specific content of the introduction will depend largely on what dialogue ensued when the examiner did the overview of all procedures. There are some instances when the test might be identified as the Rorschach, but the term *inkblot* will probably be preferable in most cases, and can be used freely. In a few instances, some explanation about how inkblots are made is appropriate, especially if the client is a young child. In other instances, a particularly anxious person may ask something about correct answers, and the standard response should be that *people see all sorts of things*. But this kind of commentary should be avoided whenever possible and, most specifically, *it should not* include any reference to card turning, right or wrong answers, or any statement that might create a set about the quantity of answers to be given. The ultimate nature of the pretest phase of Rorschach administration must be left to the judgment of the examiner. No two clients or testing situations will be completely identical; however, it is important that the examiner accomplish the pretest procedures as smoothly as possible within the realities of the test situation.

Usually, the blots will be visible to the subject, *stacked face down*, and in the appropriate order, with Card I on top. They should be within easy reach of the examiner *but not* of the client. The Location Sheet that will be used during the Inquiry phase of the test should not be visible at this time. Because all responses will be recorded *verbatim*, the examiner should be well prepared with plenty of paper, and an extra pen or pencil can sometimes prove very important.

Instructions

The test begins by handing the person the first card and asking:

What might this be?

This is the basic instruction, and nothing need be added. This instruction sets off a series of complex cognitive operations that involve scanning, encoding, classifying, comparing, discarding, and selecting.

If, in spite of the pretest preparation, the person comments, *It's an inkblot*, the examiner should counter with an acknowledgment plus a restatement of the basic instruction, such as, *That's right, that's what it is, but I want you to tell me what might it be, what else does it look like?*

The Response Phase

The period during which the person is giving responses to the blots has often been called the *Free Association* (Exner, 1974, 1978; Exner & Weiner, 1982), but that label is misleading because the individual is not really associating to the figure. Instead, he or she is defining it and selecting responses for delivery. Almost all people find it easy to form several potential answers to each figure, and this happens very quickly, probably between two to four seconds. The task is really not finding possible answers, but deciding which of the potential answers available to select and give as a response. Most of the time devoted to the Response Phase of the test is devoted to this issue.

It is during this time that the examiner's responsibilities become somewhat more complex than during the pretest preparation. The examiner must record all verbal material *verbatim* quickly and efficiently, field questions on occasion, and in some instances provide a nondirective form of encouragement. The examiner must avoid injecting any set, bias, or direction into the situation except in those few instances when encouragement is required. Silence by the examiner is the

rule, interrupted only during the exchange of cards, or when a comment is necessary, but even then the verbalizations from the examiner should be formulated with care. As noted earlier, it is the perfunctory utterance that has the potential to create sets in the situation. Even the most simple response, such as “mmm-hmm,” can operate as a significant influence without any awareness by the client.

The client should *hold the card*. If some reluctance to do so is manifest, the examiner should say, *Here, take it*. If the person opts to place the card on the table, the examiner should not interfere, but initially it should be placed in the individual's hand.

Questions and Encouragement

It is not uncommon for people to ask a variety of questions, especially early into the test. The response from the examiner should be nondirective, conveying the general notion that people respond to the figures in different ways. The following are examples of questions commonly asked, and responses that usually would be appropriate.

- S: Can I turn it?
 E: It's up to you.
 S: Should I try to use all of it?
 E: Whatever you like. Different people see different things.
 S: Do you want me to show you where I see it?
 E: If you like. (It is probably best at this point to avoid any mention of the Inquiry.)
 S: Should I just use my imagination?
 E: Just tell me what you see there, what does it look like. (It is more appropriate to use the word *see* rather than “reminds you of” to questions of this sort, stressing perception rather than association.)
 S: (After giving a response.) Is that the kind of thing you want?
 E: Yes, just whatever it looks like to you.

- S: Is that the right answer?
 E: There are all sorts of answers.
 S: Does it look like that to you?
 E: Oh, I can see a lot of things.
 S: How can you make anything out of what I see?
 E: Why not wait until we are done and I'll try to explain it a bit more.
 S: Do you buy these or just make them?
 E: We buy them.
 S: Do you always show people the same ones?
 E: Yes.
 S: How many of these are there?
 E: Just 10.
 S: How long will this take?
 E: Not very long.

There is another class of question, the response to which will depend on the point at which it occurs in the Response Phase. These are questions concerning how many responses should be given. Often, before giving any answers, or after giving only *one* response to Card I, a person will ask, “How many things should I find?” The standard response should be: *If you take your time, I am sure that you will find more than one*. Others will sometimes give *more than one* response to the first card and then ask, “How many should I see?” The standard response is, *It's up to you*. This same response should be used if the client raises a question about the quantity of answers while viewing cards *after* Card I.

Prompting

There is a different circumstance in which the examiner should be more direct in encouraging answers. This is when the person gives only *one* response to Card I, and then attempts to return the card. When that happens, a standard prompt is employed:

If you take your time and look some more I think that you will find something else, too.

The objective of the prompt is to "set" the person to give a record of sufficient length to permit a valid interpretation. If the person fails to give a second answer to Card I, the examiner should *accept* that decision, but be prepared to inject an optional second prompt if the circumstances seem appropriate.

The decision about whether to use the optional prompt occurs if a prompt has been given on Card I, and the client has given no more than two answers to Card I, and subsequently, gives only one response to Card II, one to Card III, and one to Card IV, after which he or she attempts to return the card. In this circumstance, the examiner may decide not to accept the card and, instead, say:

Wait, don't hurry through these. We are in no hurry, take your time.

This form of encouragement is not as direct as that used on Card I. It simply encourages the person to take more time. Although the prompt does not specifically ask for more answers, as does the prompt used on Card I, the implication is there.

The optional prompt should not be used routinely, and definitely not simply because a person has given only five answers to the first four cards. That occurs often among people who give 20 or more answers in the entire test. The decision to use the optional prompt should be based on the examiner's belief that a brief record is inevitable if no intervention occurs.

THE PROBLEM OF BRIEF PROTOCOLS

Brief protocols often pose a nightmare for the Rorschacher. In fact, records containing less than 14 answers probably are not valid. Ordinarily, they have very little interpretive value. Research findings indicate that the overwhelming majority of records of less than 14 responses will not have the level of reliability prerequisite to the assumption of interpretive validity (Exner, 1988). There is no easy way to distinguish the low *R* record that is valid from one that is not. Even protocols of 14,

15, or 16 answers are usually difficult for interpreters to glean a full picture of the psychology of the client, and often are marked by some situationally related resistance.

Unfortunately, brief records occur more often than might be expected. There are several reasons that people give brief records. Intellectually challenged individuals often find the task somewhat overwhelming and frequently limit their involvement with it. Actually, the Rorschach is probably not a good test of choice for those who have marked intellectual deficiencies. Similarly, persons who have recently experienced significant neurological impairment often find the task difficult and frequently try to avoid becoming overly involved. Sometimes, the brief record simply may be the result of a person following instructions very concretely and failing to generalize from encouragement given during Card I. Typically, these are persons who do not understand the assessment procedure.

Probably the most common causes of brief records are haste or resistance that, frequently, is attributable to the examiner's preassessment preparation of the client. Some people, especially children, want to go through the test as quickly as possible, and their haste produces a short record. Sometimes, the set to hurry is created when an examiner does not create a good working relationship with the individual. Likewise, the nature of the situation, and/or the failure of an examiner to adequately prepare a client, can lead to a tendency to resist the assessment. This resistance is likely to manifest most directly when the person is taking the Rorschach. The brief record that results is a reflection of the person's attempts to avoid the demands of the test situation. In effect, these performances represent subtle refusals to take the test. If examiners find themselves frequently obtaining brief records, they should carefully review, possibly with consultation, their pretest procedures.

As a rule, protocols that contain less than 14 responses should probably be discarded on the premise that they are unreliable and, as such, are not interpretively valid. In fact, records of less

than 14 answers should not even be inquired. There will be some obvious exceptions, especially records that indicate severe disturbance, and for which other data exist confirming the magnitude of the disability.

Ordinarily, when a record of less than 14 *R* is taken, the examiner should consider either of two options. The first is to discard the test and rely on other assessment data that are available to formulate an evaluation of the client. On the other hand, a second option exists if Rorschach data are of importance to the assessment issue(s) that have been posed. It involves an immediate retest following the Response Phase of the test. To do so, the examiner should interrupt the standard procedure of proceeding to the inquiry, and explain to the subject:

Now you know how it's done. But there's a problem. You didn't give enough answers for us to get anything out of the test. So we will go through them again and this time I want you to make sure to give me more answers. You can include the same ones you've already given if you like, but make sure to give me more answers this time.

Most people seek direction under this new circumstance and ask, "How many should I really give?" The response depends mainly on whether the examiner feels that the person had tried to be cooperative. For example, if the person seemed cooperative, it is appropriate to say: *Well, it's really up to you, but you only gave . . . answers, and I really need more than that to get anything out of the test.* If the individual has been more resistive or guarded, the examiner should be more directive if a question is asked, such as: *Well, it's up to you but I really need several more answers than you gave.*

Examiners usually are loathe to use this tactic, but there does not seem to be other options that are viable when Rorschach data are important to the overall assessment. French and Gaines (1997) have explored a tactic with younger clients wherein, following the production

of a record of less than 15 responses, the child is asked to give at least one more answer to each card. Then, all responses that have been given are inquired together. This procedure may be structured excessively, and might produce a more distorted data set. In fact, French and Gaines report that the expanded protocols in their study tended to appear more deteriorated as contrasted with a summary of the responses initially given.

Potential Rejections

In a few cases, especially resistant clients' attempt to reject the card. Usually the person will say, "It doesn't look like anything to me" or, "I just don't see anything there" or, "All I can see is an inkblot, nothing else." If this occurs when the person is responding to Card I, or to Card II after only one answer was given to Card I, it probably is an indication that the examiner has not created sufficient rapport with the client during the overview of purposes and procedures. When this occurs, the administration should be halted, and the examiner should review the purpose of the assessment with the individual once again. Some people simply do not want to be tested and, unfortunately, there is no magic formula that will ensure their cooperation. If this proves to be the case, efforts to administer the Rorschach should be abandoned. This is a very unusual circumstance that occurs with the extremely guarded and hostile client or, occasionally, with some who are extremely disorganized because of an active psychotic state. The person who is chaotically psychotic should not have been referred. As for the angry and guarded individual, the judgment and skills of the examiner must dictate the matter of disposition.

The most common attempts to reject cards do not occur with Cards I or II. Instead, they usually occur later in the test, and most often with Card IX, which seems to have the highest level of difficulty. If a person has been giving responses to the preceding cards, the attempted rejection can be taken as an indicator of the discomfort that the

person is experiencing as the task proceeds. But it does not mean that the client cannot respond. On the contrary, it suggests that he or she is having difficulty in the discarding and selection components of the response process. Some reassurance can be helpful such as: *Take your time, we are in no hurry.* If the client persists in the rejection attempt, the examiner should be more firm, responding with, *Look, take your time, everyone can find something. We've got all day if we need it.* This sort of pressure should be applied only in the exceptional circumstance where no other tactics can be used to avoid the rejection. It is likely that the remainder of the record will be brief and possibly more guarded than might otherwise be the case but, unfortunately, the alternative is to have a record that is missing responses to one or more cards, and it will not be valid.

THE PROBLEM OF LENGTHY RECORDS

Whereas the most common problem in Rorschach administration involves the excessively short record, some people become overly involved in the test and will give endless numbers of answers if permitted to do so. In the early days of the Rorschach, and extending through the 1960s, examiners had no guidelines to use in halting a client if he or she seemed determined to provide a large numbers of answers to each figure, and probably every examiner of that era experienced at least one client whose record exceeded 75 responses, and some suffered with the necessity to record more than 100 answers.

The instructions employed by Rorschach, and selected for use in the *Comprehensive System*, produce an average range for *R* of between 17 and 27 answers. In selecting Rorschach's original instructions for inclusion in the system, Exner (1974) noted instructional tactics designed to increase *R*, such as those used by Beck (encouraging for more than one response on each of the first five blots) yielded an increase in the average *R* by nearly 10 responses. However, the majority of the "prompted" increase consists of answers in which a common detail area (*D*) is used, that are

based on pure form (*F*), and involve animal (*A*) content. In effect, an instructionally increased number of responses does not contribute significantly to the interpretive yield. Conversely, protocols obtained using the standard *Comprehensive System* instructions that exceed the average range by as much as three *SD*'s (28 to 42 responses), are often quite rich, and usually include material that broadens the interpretive yield. Nonetheless, the study of instructions and protocol length did not contend with the substantially longer than average protocols (more than 42 responses) that are voluntarily produced.

In a study completed for the second edition of this work (Exner, 1986), protocols from various patient and nonpatient groups, ranging in length from 45 to 85 answers, were drawn from the data pool for study. Each of these 135 records were re-typed, but included no more than the first five responses per blot. Both sets of records, the original full-length one and the reduced one, were interpreted by at least two of a group of six judges, working independently of each other, and they were also processed through a computer interpretation program. When the interpretive descriptions and conclusions were examined in pairs (i.e., one derived from the original and one derived from the condensed version), the interpretations were strikingly similar. In some instances, the longer record produced firmer, *but not different*, conclusions. Other differences that evolved were not consistent. These findings suggest that it is reasonable to limit the number of answers that a person is permitted to deliver, *under some circumstances*.

When a person gives five responses to Card I, and retains the card with the obvious intention of giving additional responses, the examiner should intervene by taking the card from the client and saying, *Alright, let's do the next one.* If the person gives five responses to Card II the same procedure should be used. This tactic should continue to be used for each subsequent card as long as the client *continues to give five answers and still keeps the card.* However, if at any time the client gives fewer than five responses to a card, *the procedure should be discontinued.* No further intervention

should occur throughout the remainder of the test *even though* the client may give more than five answers to subsequent blots.

If the procedure of intervening after five responses persists through the entire record, 50 responses will be given. Conversely, if the procedure is discontinued during the test it is possible for the record to be much longer. For instance, intervention might be used for the first three blots but discontinued on Card IV because the person gives only three responses. A total of 18 answers would have been given to that point. However, the individual may then give three answers to Card V, five answers to Card VI, seven responses to Card VII, nine answers each to Cards VIII and IX, and 14 responses to Card X, thereby creating a record of 65 responses.

There are rare occasions, probably less than once in 500 administrations, in which a person may give only two or three answers each to the first few cards, or gives less than five answers to one of the first few cards, but then proceeds to give many responses, sometimes 10 or more, to subsequent cards. Thus, it is possible to obtain a very lengthy record, sometimes exceeding 70 responses. These are painful experiences for examiners. There is no hard and fast rule about how best to deal with these situations. If standard procedures are followed, all answers should be included in the final tally of the protocol, but logic and experience argue against the acceptance of extremely long records.

When examiners find themselves in this difficult situation, good judgment should be exercised. For instance, assume that a client gives less than five responses to each of the first three cards but, surprisingly, gives eight or ten answers to Card IV. Logically, no intervention should occur at this point because the unexpectedly large number of responses to Card IV may be a "one time" incident and they may include some answers that, interpretively, are very important. However, if the client proceeds to offer more than five responses to Card V, the examiner probably should remove the card after the sixth or seventh response, and continue with that procedure through the remainder

of the test, or until the person gives no more than five responses to a card.

There are numerous variations of this model that might be applied, but the decision to use any should be made cautiously and logically. This form of intervention should be used only in those instances in which the judgment of the examiner leads to the conclusion that an inordinately lengthy record will result if it is not employed. The tactic of intervening to prevent very lengthy records has some hazards and it can affect the integrity of some ratios in the summary of data. It is a trade-off that attempts to keep administration time within some reasonable parameters and produce a protocol that is interpretively manageable.

RECORDING THE RESPONSES

Each response *must be recorded verbatim*. This may seem like a difficult feat for the Rorschach novice, but it is not as arduous as it might appear. Most Rorschachers use a relatively common scheme of abbreviations in recording answers. These combine the use of phonetics, the coding abbreviations for response content, and some logically derived abbreviations not unlike those found in speed writing. Some of the more common abbreviations are shown in Table 4.1. There are two reasons that responses must be recorded verbatim. First, the examiner must be able to read them later to decide on the coding (scoring) for the response. The codes or scores are based on the presence of specific words or phrases. Responses that are not recorded verbatim cannot be coded accurately. Second, the verbatim recording creates a permanent record of the test so that others can also read the record and know *exactly* what the person said. This is important for purposes of consultation, but even more so if the client is retested at another time to cross validate the findings, or to review changes that may have occurred as the result of treatment.

It is important that the examiner set whatever pace that he or she is comfortable with in administering the test. *Time should not be afforded*

Table 4.1 Abbreviations Commonly Used in Recording Responses.

Phonetically Derived	Logically Derived	Derived from Scores
b be	abt about	H human
c see	arnd around	A animal
g gee	at anything	bl blood
o oh	bec because	cg clothing
r are	bf butterfly	cl cloud
u you	bk back	ex explosion
y why	cb could be	fd food
	dk don't know	fi fire
	et everything	ge geography
	frt front	ls landscape
	j just	na nature
	ko kind of	sc science
	lik like	xy x-ray
	ll looks like	
	mayb maybe	
	rite right	
	scfic science fiction	
	ss some sort	
	st something	
	wm woman	
	wng wing	
	-g -ing	

undue weight when administering the test. It is far more important that the examiner set a pace that will ensure that all of the data have been collected properly in a form that is easily used. Some clients tend to speak very rapidly, almost as if to challenge the examiner. Although it is not desirable to interrupt a subject, it is necessary in some instances to ask a person to repeat part of an answer, or simply to request that he or she verbalize more slowly. For instance, an examiner might say, *Wait! I'm having trouble keeping up with you. Go a little slower please.*

If it is necessary to ask a person to repeat part of an answer, the examiner should use the last few words that were recorded in forming the question, such as, *I'm sorry, I didn't get all of that. You said two people with hats and . . . ?* This tactic increases the likelihood that the same response will be repeated by the individual, but be sure to repeat the words of the client exactly as they were said.

Laying Out the Record

One of the most important aspects of administering the test is the way in which the record is laid out. The responses should be recorded in a manner that makes them easy to use. In other words, not only should each answer be recorded legibly and verbatim, but they should be easy to review. For instance, it is very important that the response *is aligned* with the material given later in the Inquiry concerning that answer. This is important for both scoring and interpretation. Typically, the Inquiry will consist of many more words than the response. Thus, it is necessary to leave considerable space between the responses as they are given, so that space is available to align the Inquiry material later. It is a good practice to record no more than two or three answers on one page and *always* begin a new page for each card.

Most examiners prefer to use a format for recording responses in which the page is set horizontally, not vertically. A small section to the left is reserved for the card and response numbers. The section next to that, which should not quite extend to the middle of the page is for recording the responses. The next section to the right is the largest. It is used for the Inquiry. Some examiners reserve a column at the right margin to enter the scoring, but this is an option that is less appealing because the coding may include several special scores and require more space than is available in a small area. Most examiners prefer to have the entire right side of the page available for the Inquiry material and usually enter scores beneath the responses in the left section. An illustration of a layout in which scores are entered beneath responses is shown in Figure 4.1.

As illustrated, responses should be numbered in consecutive order through the entire test. It will also be noted that carat marks (\vee $>$ $<$), first suggested by Loosli-Usteri in 1929, are used to note the position of the top of the blot when the card is not being held in the upright position. It is also good practice to enter the name or ID number of

Card	Response and Scores	Inquiry
I	<p>1. Ths ll a bat to me, but I'm not sure, yeah I guess a bat, I thot of a bird but I thk a bat is better a bat</p> <p>Wo FMa.FC' o A P 1.0</p> <p>(S wants to return card) E: I thk if u tak ur time & look some more u'll find s.t. else too</p> <p>2. I guess the centr part cb a wm stndg ther w her hands up</p> <p>D + Ma.FVo H,Cg 4.0 GHR</p> <p>(S: Can I turn it ovr?) E: Sur, whtevr u lik <v></p> <p>3. No, its bettr ths way, it cb lik a mask, smthg lik for halloween</p> <p>WSo Fo (Ad) 3.5</p>	<p>E: (Rpts Ss response) S: Yeah, it has the wgs & the body & I guess thes cb the feelers, I dk if bats have feelers, but I guess thy do, yeah it maks me thk of a bat w the wgs out, flyg E: Show me where ur seeg it S: Oh, all of it, c thes r wgs (points) outstrechd lik flying along & ths is the body in the cntr, its all colord lik bats E: Colord lik bats? S: Yeah, thyr blk lik ths</p> <p>E: (Rpts Ss response) S: Yeah, c here (outlines), it's lik the shape of a wm to me, her dress is kinda transparent, at lest it ll tht to me E: Transparent? S: Well, thes wb her legs & waist, its just curvy, lik a wm, u don't c her head too well, c her hands r up here, lik she's wavyg or s.t., u kind of c her body thru her dress, like it was transparent or mayb thers a light shining behind her</p> <p>E: (Rpts Ss resp) S: Yeah, lik an A mask, the white is for the eyes and mouth & thes thgs stickg out r lik straps tht u tie arnd your head, it sorta ll a cat mask to me E: Where r u cg ths S: Its all of it</p>

Figure 4.1 Format for recording Rorschach responses.

the subject on each page that is used and on the Location Sheet during the Inquiry.

Recording Questions and Comments

Any questions asked by the client should be recorded, as should the response of the examiner. Similarly, any comments made by the client, such as "That's an ugly one," or "Look at all the colors," should also be recorded. In most cases, they will contribute little or nothing to the interpretive yield but, in some instances, they may add useful information.

THE INQUIRY

Unfortunately, the Inquiry has been one of the most misunderstood and abused features of the Rorschach. When done correctly, it completes the

richness of the test data. When done incorrectly, it can muddle a protocol terribly and often generates data that may be of clinical interest but that represents something other than true Rorschach data. The overall purpose of the Inquiry is to ensure that the coding (scoring) of the response is as accurate as possible. The code is designed to represent what the person perceived at the time when the response was delivered. Thus, the immediate objective of the Inquiry is for the examiner to see what the client has seen or, at the very least, to understand where in the blot the person sees something, and what features of the blot cause it to be seen that way.

The Inquiry is the phase of the test when the client shares responses with the examiner. It is not a new test and it is *not* a time when new information is developed. It is simply a time when old information is reviewed and clarified. It is a delicate

phase of the test that, if misunderstood by the client or mishandled by the examiner, can lead to many problems in coding responses and/or interpreting the test data. It was mentioned earlier that the examiner should set his or her own pace when administering the test. That is even more important during the Inquiry. Whereas the average time for the Response Phase of the test is usually less than 20 minutes, the average time required for the Inquiry is rarely less than 30 minutes.

The actual amount of time involved for the Inquiry will depend largely on how cooperative and/or articulate the client may be. If he or she has been properly prepared for the Inquiry, it will usually proceed quickly and easily. Conversely, when the client is not adequately prepared for the Inquiry, the questions and directions of the examiner can easily provoke anxiety, irritation, and defensiveness.

Introducing the Inquiry

The importance of introducing the Inquiry correctly cannot be overemphasized. It is critical that the client understand *why* the Inquiry is being conducted and *what* is expected. As noted earlier, the goal is for the examiner to see what the person has reported, as the person sees it. It follows that if the examiner can see what the client reported, the coding of the response is likely to be done easily and accurately. The standard explanation to introduce the Inquiry is:

Now we are going to go back through the cards again. It won't take very long. I want to see the things that you said you saw and make sure that I see them like you do. We'll do them one at a time. I'll read what you said and then I want you to show me where it is in the blot and then tell me what there is there that makes it look like that to you, so that I can see it too, just like you did. Is that clear?

At this point some people ask questions ranging from, "Why do we have to do this?" (*So that I can see the things that you saw*) and "What do you

want me to tell you?" (*Just help me to see it. Show me where you saw it and what makes it look like that*) to "Should I find other things too?" (*No, I'm only interested in the things you saw before*). Answers should be direct and honest and always designed to keep the purpose of the Inquiry in focus.

Once the person implies an understanding of the task, the Inquiry can begin *but not before then*. If a client seems unsure about or resistive to the process, some sort of restatement concerning the task or additional explanation concerning the procedure is wise such as, *Remember, I need to see it as you do. I need to know where it is and what about the blot makes it look like that.*

The Inquiry Procedure

Once the examiner is satisfied that the person is ready to begin, the first card is given to the client with the comment, *Okay, let's try the first one.* Subsequent cards are handed to the client one by one, with the examiner saying, *Here you said . . .* or *Then you said . . .* and finishing with a *verbatim* reading of what was given as the answer. If the person has truly understood the prefatory instructions, he or she will proceed to specify the area that was involved and identify some of the main features of the object that has been reported.

In some cases, a client who appeared to understand the task may flounder at the onset. For example, after hearing the *verbatim* response read, the subject might say, "Yes, that's right." If this happens, it becomes necessary to repeat the purpose and procedure as in: *Remember now why we're doing this. I need to see it too, so you have to help me. Show me where it is and tell me what makes it look like that.* Sometimes, especially with younger clients, an individual may point out where the object has been seen with no difficulty, but then falter in attempting to articulate features as in, "I don't know why, it just looks like that to me." When this happens the examiner should be supportive yet firm: *I know it looks like that to you but remember, I need to see it too. So help me. Tell me about some of the things you see there that make it look like . . .*

In rare instances, it may be appropriate to practice a bit with a young child. If this is to be done, ready access to a well-defined, easily identified object is essential (a toy fire truck, for example). When placing the object before the child, the question is asked, *What is that?* After the child replies the examiner says, *That's right, but how do you know it's a fire truck?* prompting the child to articulate features that distinguish it such as the ladders, wheels, coloring, and other features. After the child has identified some features, the examiner provides some reassurance and returns to the task of the Inquiry, *See, you did that fine, now let's do these.*

Decisions to Question

Each response should be inquired by first reading, *verbatim*, the person's answer. Reasonably cooperative people catch on to the task quickly and usually provide more than enough information for the scoring decision to be made. Under optimal conditions, the examiner will not have to ask any questions during the entire Inquiry. On the other hand, the optimal is not commonplace, and for most records the examiner will have to inject questions to clarify where or why something was seen.

The examiner must be thoroughly familiar with the coding or scoring possibilities. That knowledge forms the basis from which decisions to question or not to question are made. The basics of the response can be divided into three categories: (1) Location (Where is it?), (2) Determinant(s) (What makes it look like that?) and, (3) Content (What is it?). If information concerning these three features is given by the subject, the response can be coded (scored) correctly.

The third category (Content) is usually the easiest to define as the response itself almost always tells what the object is. Similarly, for most responses, the first category (Location) is almost always delineated by the subject. When the location is specified, the examiner should note this on the *Location Sheet*, either by using the symbol *W* together with the response number, such as 3=*W*

if the whole blot has been used, or if only an area of the blot has been used by *carefully* outlining that area on the *Location Sheet* and entering the number of the answer next to the outline. Some experienced examiners often record the area used in a parenthesis in the Inquiry verbiage, such as (*W*), (*D4*), (*Dd2I*), and so on, and this is a good practice when possible. The overall objective in recording location is for anyone to be able to review the protocol and be able to identify the area used for a response easily.

Whoever scores the protocol must know exactly where the individual's response appears. Without this knowledge, it may not be possible to judge the form quality of the response. If the response might be difficult for others to identify easily, or if it includes unusual features, some of the specific characteristics of the object should also be noted on the *Location Sheet*.

If the person does not specify the location of the answer or if the location is not clear, a question is posed. It can range from, *Where do you see that?* to *I don't think I see it correctly, run your finger around it*, or in extreme instances, *I'm not sure where it is, put your finger on the . . .* (nose, head, wing, wheel, etc.). This is done on the blot *not* the *Location Sheet*.

Most Inquiry problems focus on the second basic category (Determinants). Whereas the response itself typically reveals the content and most people readily identify location, the issue of why it looks like that can be another matter. Objects look as they do because of shape, color, shading, or in some instances because of apparent movement. It should be assumed that the client is not fully aware of this, and this list of possibilities *is not* provided by the examiner. Thus, the verbal report of the person, free of direction or sets, constitutes the data from which the coding or scoring decisions are generated.

Unfortunately, the reports of some people are vague or do not include features suggested by clues contained in the response. The process would be easy if the person could be asked directly about the determinant(s), but several studies

indicate that the number of answers based exclusively on the form features will decrease, and the number of answers that include the use of color, movement, or shading will increase if this direct method is employed (Gibby & Stotsky, 1953; Klingensmith, 1956; Baughman, 1958, 1959; Zax & Stricker, 1960). Only one study suggests that this will not be the case (Reisman, 1970). The Rapaport et al. (1946) approach to the test included the Inquiry after each card. When records taken by the Rapaport method were compared with those delaying the Inquiry until responses to all 10 cards were given, a significant increase was found in the frequencies of movement, color, and shading answers (Exner, 1974).

Basic Inquiry Questions

Any questions that are posed to the client must be *nondirective* and free of cues that might provoke a set. It is important that the person's response to the question be as accurate as possible but *not* include more than was seen originally, when the response was given. There are several routine questions or prompts that will suffice in the majority of instances, but in many cases the examiner will have to formulate a question from the verbal material the person has given earlier in the response or the Inquiry. The basic prompt is:

I'm not sure I see it as you do, help me.

This serves as a reminder to the person about the task at hand. Unfortunately, if it is used repeatedly it sounds boring and/or stupid. Thus, variations of it such as, *You'll have to help me, I don't think I'm seeing it yet*, are often in order.

In some instances, a question that focuses on the determinant issue will be more appropriate: *I'm not sure what there is there that makes it look like that*. This is probably the best alternative to the reminder prompt because it asks directly for clarification. When the client seems resistively vague, it is appropriate to combine the basic prompt with the more focused question as in: *I know it looks like*

that to you, but remember I have to see it, too. So help me to understand why it looks like that to you.

Questions Based on Key Words

Although basic prompts and questions usually will suffice for most answers in which the person has not been precise, there is another class of answers for which questioning is necessary even though the client may have been cooperative. These are answers in which *key words* were used in the response, or have been included *spontaneously* early into the Inquiry. Key words are those which imply the possibility of a determinant that has not been articulated by the individual. Some key words are adjectives, such as, pretty, delicate, bumpy, fierce, gloomy, hurt, bright, and so on. Others may be nouns or verbs, such as circus, party, happy, picnic, blood, fur. The examiner must be alert for any word(s) that implies the presence of a determinant, and when one is detected, an appropriate question should be posed. For instance:

RESPONSE

It cb a very pretty flower

INQUIRY

E: (Rpts S's response verbatim)

S: Yes, ths cb the stem & here r the petals

At this point, the client has provided the basic location and has implied the use of contours in forming the answer. However, a key word, *pretty*, has occurred in the Response. It must be pursued because it implies the possible use of color.

E: U mentioned it is pretty

If the person had not used the word *pretty* in the response, the examiner would not have posed any question in the Inquiry, *even if the response were given to a chromatically colored area of the blot*. Inquiry questions are posed only when there is a reasonable implication that an unarticulated determinant exists. Consider another example:

RESPONSE

It ll 2 peopl doing sthg at nite

INQUIRY

E: (Rpts S's response)

S: Yes, c here thyr, their heads & legs & thes r the arms

The location and form features have been delineated, and a movement determinant (doing something) has also been given. But two issues remain in doubt. Is the movement active or passive, and does the word *night* imply the use of the achromatic features of the blot. A single question can be used to address both issues, such as, *You said doing something at night?* However, if no comment about the word *night* is forthcoming, a second question will be required, *You also said it was at night?*

In some instances the key word does not occur in the response, but does occur *spontaneously* in the Inquiry. The decision to pursue it should be conservative. As a general rule, key words that appear for the first time in the Inquiry should be pursued if they occur *during the first verbalization* in the Inquiry or, if they occur *spontaneously in response to the first question* asked by the examiner. There are some exceptions to this rule. The critical test in deciding to pursue a key word is the extent to which the examiner is reasonably convinced that the feature was present at the time the response was given. Consider, for example, the following answers to Card II, which contains chromatic coloring (red):

RESPONSE

That ll 2 bears to me

INQUIRY

E: (Rpts S's response)

S: Yeah, c here & here, like theyr fighting

The word *fighting* signifies an active movement determinant, but it also raises an issue about

whether the red coloring might be involved. Because the word is offered spontaneously, it should be questioned: *You said like they are fighting?* If the client replies, "Yes, that red looks like blood, like they are hurt," the use of color is confirmed. However, presume that the answer and Inquiry unfolded in the following manner:

RESPONSE

That ll 2 bears to me

INQUIRY

E: (Rpts S's resp)

S: Yeah, c here & here, like thyr do-g sthg

E: Doing sthg?

S: Yeah, maybe thyr fitg or sthg

In this instance, the active animal movement determinant is confirmed, but the indecisiveness of the person suggests that the issue should not be pursued further. Had the person said, "Well it looks like they are hurt so they've probably been fighting," a question concerning the word *hurt* would clearly be in order.

The guidelines about whether or not to pose a question when a key word appears in the Inquiry should be applied intelligently by the examiner. If there is reason to believe that the person is simply reporting something that he or she saw during the Response Phase, it should be questioned. On the other hand, if the examiner has been asking many questions as the Inquiry proceeds, and believes the client is simply reexamining the response in an effort to assist the examiner in seeing the object reported, no further questioning should ensue. These decisions are never made easily, but conservatism should always be the guideline.

Inappropriate Questions

There are some classes of question that should never be posed during the Inquiry. These are direct or leading questions, or questions that are oriented to elicit material that is not related directly to the

coding issues. Direct questions such as, "Did the color help?" or "Are they doing anything?" can only serve to cloud the coding issues and create unwanted sets about the procedure. The same is true of leading questions such as, "Which side of the skin is up?" or "Can you tell me anything else about it?" These create the same sort of unwanted sets. It is sometimes very tempting to ask a person to elaborate on a response such as, "Are they males or females?" or "Why do you think he feels sad?" These are questions that are completely foreign to the coding issues, and although the answers might appear to be clinically useful, they only serve to contaminate the test.

The Examiner and the Inquiry

There is no doubt that the Inquiry is a complicated procedure that requires the examiner to be especially astute. The verbiage, which usually is longer than in the Response Phase, must also be recorded *verbatim*. The examiner must carefully think through the material to decide if questioning is necessary, or what question to pose, and the Location Sheet must be completed with care. In some ways, the Inquiry is the Achilles' heel of the test because it can be botched badly when done by the unskilled or casual examiner. There is no absolute set of questions to be asked and the examiner should avoid feeling compelled to ask about the possible presence of every determinant. Brevity should be the rule, and the questions must be nondirective. Finally, the examiner must be aware that the client is now operating under a new set of guidelines that Levin (1953) has likened to a second test.

Resistance in the Inquiry

In many instances, the Inquiry promotes a sense of relief for the client because the task now becomes more well defined. When this occurs, it is not uncommon for some, especially children, to offer new responses during the Inquiry. Those *additional* answers should be faithfully recorded,

because they may have some qualitative usefulness, but they are not coded or used directly in the basic interpretation of the test. On the other hand, the new guidelines of the Inquiry can provoke a sense of threat in some people because of the perceived need to justify their responses. In some such cases, the person may accuse the examiner of a recording error such as, "I didn't say that. You must have wrote it wrong." In other instances, a person may attempt to avoid a response by saying either, "That's not what I really saw," or "It doesn't look like that now," or "I can't find it now." The examiner who encounters this form of resistance should proceed tactfully but firmly. In the case where the person denies the response, the examiner should counter with something such as: *No, I'm sure I wrote every word, here look at what I wrote. Now let's find it so you can show it to me.* If the client states that it does not look like that now, or worse, reports that it cannot be found, the examiner should be firmly reassuring, saying something such as, *Sometimes things look different when you look again, but let's try to see it like you did before. Take your time, and let me tell you again what you said.* The following are some illustrations of how resistance during the Inquiry might be handled:

RESPONSE PHASE

Maybe sk of animal

INQUIRY

E: (Rpts S's resp)

S: I dk, mayb here (vaguely outlines)

E: I'm not sur I c it

S: Just there

E: Wait, I kno u c it but help me c it

S: Ok, the head & legs here

(This is sufficient and no further questions are required.)

A face

E: (Rpts S's resp)

S: I don't c it now

E: Take ur time, u saw it once I'm sur u can find it again

S: Nope, its not there

E: Keep trying don't hurry

S: It's not there

E: Do u remember what kind of face?

S: I dk, an A I guess

E: Try a little longer

(If S continues to deny the response, the Inquiry effort concerning the response should be abandoned and a minus form quality score assigned such as, *Ddo F- Ad.*)

Maybe an airplane

S: (Rpts S's resp)

S: Yeah it could b

E: Show me where u c it

S: All of it

E: I'm not sur what makes it ll an airplane

S: It just does

E: I kno it does to u but help me c it too

S: I dk it just does

E: Show me some parts of it

S: C the wgs lik a plane

(This is sufficient and no further questions are required.)

A parachute

E: (Rpts S's resp)

S: It doesn't ll tht now, it ll a tree

E: Ok, we'll talk about the tree in a minute, but 1st let's try & c it as a parachute

S: But it's not lik that now

E: I kno, but it did before, let's try to c it tht way 1st

S: Well I thot of ths big top here

E: Run ur finger around it 4 me

S: (Outlines)

(This should be sufficient to score, and at this point the examiner should record and inquire about the additional tree response.)

Although redundant, it seems important to reaffirm the importance of preparing the client for the Inquiry. If this is accomplished skillfully, the examiner will be free to use a greater latitude in posing questions that otherwise might provoke extreme resistance to the process by the client.

Inquiring Comments

As noted earlier, all comments and questions asked by the client during the test should be recorded. Most of these will have nothing to do with the Inquiry process. However, a person may say something that seems to be a comment but might be a response. For instance, if a figure has chromatic coloring, a client might say, "Oh, blue and pink," which, if a response, would be coded for color naming, but if it is a comment about the blot, it would not be pursued in the Inquiry. Or a client might say, "That's an ugly looking thing," raising the issue of whether this is a comment concerning the blot or the identification of an ugly looking object. In these instances, the examiner should, at the appropriate point in the Inquiry, read what the subject said verbatim and ask, "Did you mean that as an answer?" Most subjects will offer clarification quickly and the examiner should proceed accordingly.

THE LOCATION SHEET

Completion of the Location Sheet is also a very important part of the Inquiry procedure. It is a single page on which the blots are reproduced in miniature. The recording is done by outlining the area designated by the client on the miniature, using an ink or a felt-tip pen, and recording the number of the response close to the outline. When the whole figure has been used, the scoring symbol *W* is recorded on the Location Sheet together with the number of the response.

The value of a carefully completed Location Sheet cannot be overstated. It provides a permanent record that will be used when the test is coded, and is available later for others to use when reviewing the test. The examiner should also take the time to identify some features of the object reported *if* they are not obvious to the casual observer. The less common the response, the greater the likelihood that these added notations will be important during scoring or in a later review of the protocol.

For instance, if the response involves a human or an animal, some notation concerning the areas where the nose, legs, or arms have been identified can be helpful. Similarly, some responses include several separate objects such as, "a man riding a bicycle with a child running in front of him as they are passing a pond." Here, each of the four features (man, bicycle, child, and pond) should be noted on the Location Sheet.

TESTING OF LIMITS

There is a form of post-Inquiry questioning that may be worth considering for some cases. This is the Testing-of-Limits procedure, recommended originally by Klopfer and Kelley (1942). It was designed to test out hypotheses that responses (objects) may have been classified but later rejected in the response process. The procedure can be taken to extremes and, as such, has no useful purpose. Nonetheless, there are instances, especially with psychotic people, when a very low number of Popular responses have been given, and the question arises about whether the person did not classify, or simply failed to report the common object. This is especially important to differentiate the person whose perceptual processes are impaired versus those who discard the obvious in favor of more idiosyncratic answers.

Testing-of-Limits proceeds with the examiner selecting blots to which the most common Popular responses ordinarily occur (usually Cards III, V, and VIII) but have not been given, and simply

asking the person if he or she might see that object there. The directions are simple, "Sometimes people see . . . here. Do you see anything that looks like that?" These findings can be important for treatment planning.

SUMMARY

The task of administering the Rorschach is not simple, but it is not difficult to learn. The key to the procedure is proficiency in coding. No one can be competent in the tactics of administering the Rorschach unless they can code responses easily and accurately. Once the decision is made that the data of the Rorschach will be relevant to the assessment issues, the examiner becomes committed to a complex procedure that relies heavily on coding expertise. But competent administration of the Rorschach is not contingent *only* on that skill. Good examiners also exercise good judgment when administering the test, and deal with their subjects in a tactful, sensitive, and honest manner.

REFERENCES

- Baughman, E. E. (1951). Rorschach scores as a function of examiner differences. *Journal of Projective Techniques*, 15, 243-249.
- Baughman, E. E. (1958). A new method of Rorschach inquiry. *Journal of Projective Techniques*, 22, 381-389.
- Baughman, E. E. (1959). An experimental analysis of the relationship between stimulus structure and behavior on the Rorschach. *Journal of Projective Techniques*, 23, 134-183.
- Carp, A. L., & Shavzin, A. R. (1950). The susceptibility to falsification of the Rorschach diagnostic technique. *Journal of Consulting Psychology*, 3, 230-233.
- Coffin, T. E. (1941). Some conditions of suggestion and suggestibility: A study of certain attitudinal and situational factors influencing the process of suggestion. *Psychological Monographs*, 53(Whole No. 241).
- Cox, F. N., & Sarason, S. B. (1954). Test anxiety and Rorschach performance. *Journal of Abnormal and Social Psychology*, 49, 371-377.

- Exner, J. E. (1974). *The Rorschach: A Comprehensive System. Volume 1*. New York: Wiley.
- Exner, J. E. (1978). *The Rorschach: A comprehensive system: Vol. 2. Current research and advanced interpretation*. New York: Wiley.
- Exner, J. E. (1980). But it's only an inkblot. *Journal of Personality Assessment*, 44, 562-577.
- Exner, J. E. (1986). *The Rorschach: A Comprehensive System. Volume 1: Basic foundations*. New York: Wiley.
- Exner, J. E. (1988). Problems with brief Rorschach protocols. *Journal of Personality Assessment*, 52, 640-647.
- Exner, J. E., & Hark, L. I. (1979). Order effects for WAIS and Rorschach scores. Rorschach Workshops (Study No. 262, unpublished).
- Exner, J. E., & Hark, L. I. (1980). Frequency of Rorschach responses after prolonged cognitive testing. Rorschach Workshops (Study No. 271, unpublished).
- Exner, J. E., Leura, A. V., & George, L. M. (1976). A replication of the Masling study using four groups of new examiners with two seating arrangements and video evaluation. Rorschach Workshops (Study No. 256, unpublished).
- Exner, J. E., & Weiner, I. B. (1982). *The Rorschach: A comprehensive system: Vol. 3. Assessment of children and adolescents*. New York: Wiley.
- Fosberg, I. A. (1938). Rorschach reactions under varied instructions. *Rorschach Research Exchange*, 3, 12-30.
- French, A. P., & Gaines, R. N. (1997). Clinical experience with brief Rorschach protocols, II. *American Journal of Forensic Psychology*, 15, 65-68.
- Gage, N. L. (1953). Explorations in the understanding of others. *Educational and Psychological Measurement*, 13, 14-26.
- Garb, H. N. (1984). The incremental validity of information used in personality assessment. *Clinical Psychology Review*, 4, 641-655.
- Gibby, R. G., Miller, D. R., & Walker, E. L. (1953). The examiner's influence on the Rorschach protocol. *Journal of Consulting Psychology*, 17, 425-428.
- Gibby, R. G., & Stotsky, B. A. (1953). The relation of Rorschach free association to inquiry. *Journal of Consulting Psychology*, 17, 359-363.
- Giedt, F. H. (1955). Comparison of visual, content, and auditory cues in interviewing. *Journal of Consulting Psychology*, 18, 407-416.
- Goodman, N. L. (1979). *Examiner influence on the Rorschach: The effect of sex, sex pairing and warmth on the testing atmosphere*. Doctoral dissertation, Long Island University, NY.
- Grisso, J. T., & Meadow, A. (1967). Test interference in a Rorschach-WAIS administration sequence. *Journal of Consulting Psychology*, 31, 382-386.
- Haller, N., & Exner, J. E. (1985). The reliability of Rorschach variables for inpatients presenting symptoms of depression and/or helplessness. *Journal of Personality Assessment*, 49, 516-521.
- Harrower, M. (1965). Differential diagnosis. In B. Wolman (Ed.), *Handbook of clinical psychology*. New York: McGraw-Hill.
- Holt, R. R. (1958). Clinical and statistical prediction: A reformulation and some new data. *Journal of Abnormal and Social Psychology*, 56, 1-12.
- Holt, R. R. (1970). Yet another look at clinical and statistical prediction: Or, is clinical psychology worthwhile? *American Psychologist*, 25, 337-349.
- Kelly, E. L., & Fiske, D. W. (1950). The prediction of success in the V.A. training program in clinical psychology. *American Psychologist*, 4, 395-406.
- Klingensmith, S. W. (1956). *A study of the effects of different methods of structuring the Rorschach inquiry on determinant scores*. Doctoral dissertation, University of Pittsburgh, PA.
- Klopfer, B., & Kelley D. M. (1942). *The Rorschach technique*. Yonkers-on-Hudson, NY: World Books.
- Kostlan, A. A. (1954). A method for the empirical study of psychodiagnosis. *Journal of Consulting Psychology*, 18, 83-88.
- Levin, M. M. (1953). The two tests in the Rorschach. *Journal of Projective Techniques*, 17, 471-473.
- Loosli-Usteri, M. (1929). Le test de Rorschach applique a differents groupes d'enfants de 10-13 ans. *Archives de Psychologie*, 21, 51-106.
- Lord, E. (1950). Experimentally induced variations in Rorschach performance. *Psychological Monographs*, 60(Whole No. 316).
- Luborsky, L., & Holt, R. R. (1957). The selection of candidates for psychoanalytic training. *Journal of Clinical and Experimental Psychopathology*, 18, 166-176.
- MacKinnon, D. W. (1951). The effects of increased observation upon the accuracy of prediction [Abstract]. *American Psychologist*, 6, 311.
- Masling, J. (1965). Differential indoctrination of examiners and Rorschach responses. *Journal of Consulting Psychology*, 29, 198-201.

- Peterson, L. C. (1957). *The effects of instruction variation on Rorschach responses*. Unpublished Master's thesis, Ohio State University, Columbus.
- Phares, E. J., Stewart, L. M., & Foster, J. M. (1960). Instruction variation and Rorschach performance. *Journal of Projective Techniques*, 21, 28-31.
- Piotrowski, Z. A. (1958). The psychodiagnostic test battery: Clinical application. In D. Brower, & L. E. Abt (Eds.), *Progress in clinical psychology* (Vol. 3). New York: Grune & Stratton.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Diagnostic psychological testing* (Vol 2). Chicago: Yearbook Publishers.
- Reisman, J. M. (1970). The effect of a direct inquiry on Rorschach scores. *Journal of Projective Techniques and Personality Assessment*, 34, 388-390.
- Sarbin, T. R. (1943). A contribution to the study of actuarial and individual methods of prediction. *American Journal of Sociology*, 48, 593-602.
- Schachtel, E. G. (1945). Subjective definitions of the Rorschach test situation and their effect on test performance. *Psychiatry*, 8, 419-448.
- Schafer, R. (1954). *Psychoanalytic interpretation in Rorschach testing*. New York: Grune & Stratton.
- Stern, G. G., Stein, M. I., & Bloom, B. S. (1956). *Methods in personality assessment*. Glencoe, IL: Free Press.
- Strauss, M. E. (1968). Examiner expectancy: Effects on Rorschach experience balance. *Journal of Consulting Psychology*, 32, 125-129.
- Strauss, M. E., & Marwit, S. J. (1970). Expectancy effects in Rorschach testing. *Journal of Consulting and Clinical Psychology*, 34, 448.
- Van de Castle, R. L. (1964). Effect of test order on Rorschach human content. *Journal of Consulting Psychology*, 28, 286-288.
- Vernon, P. E. (1950). The validation of civil service selection board procedures. *Occupational Psychology*, 24, 75-95.
- Williams, M. H. (1954). The influence of variations in instructions on Rorschach reaction time. *Dissertation Abstracts*, 14, 2131.
- Zax, M., & Stricker, G. (1960). The effect of a structured inquiry on Rorschach scores. *Journal of Consulting Psychology*, 24, 328-332.

CHAPTER 5

Scoring: The Rorschach Language

The full value of the Rorschach is realized only from the complete sum of its parts. A neglect of any available Rorschach data, whether quantitative or qualitative, is an abuse of the test and a disservice to the client. This principle has been emphasized by all of the Rorschach Systematizers. Beck (1945, 1967), Klopfer (1942, 1954), and Rapaport-Schafer (1946, 1954) each stressed the importance of using the total *configuration* of the record. Hertz (1952, 1963) accented the same principle in her "interactionist approach" and Piotrowski (1957) elaborated on this in his "principle of interdependent components." In essence, the concept of *total* Rorschach acknowledges that few if any single test variables will have a consistently high correlation with any internal or external behavior. Instead, this concept is predicated on the notion that an understanding of any feature of an individual can be useful only when it is judged in the context of other features. It is the knowledge of how the characteristics of a person merge in a series of complex interrelationships that breeds a reasonable understanding of that person.

Much rich information concerning the characteristics of a person, and the interrelationship of those characteristics, is derived from the scoring summary of the Rorschach. These are the data that provide the nucleus of interpretation. The issue of scoring and the symbols to be used have been topics of much discussion in the literature. In fact, it was the scoring issue that formed the original seeds of divergence among the various systematizers, and ultimately led them in different

directions in extending Rorschach's work (Exner, 1969). It was also on this issue that the major criticisms of the Rorschach unfolded during the 1950s and 1960s. Much of the research published during that period focused on single variables rather than constellations or configurations of variables. The result was a sizable body of literature concerning the test that reported negative or equivocal findings, provoking some, such as Zubin, Eron, and Schumer (1965), to argue that the test should not be considered in the "measurement" framework at all.

As noted in Chapter 3, critics such as Zubin have, to some extent, been correct in the assumption that all Rorschach "scores" do not have some of the usual psychometric characteristics that are common in most psychological tests. For instance, many scores are not normally distributed, making the application of parametric statistics, at best, difficult. Others are valid, but not temporally consistent, and some have levels of temporal consistency or reliability that account for less than half of the variance. Moreover, all protocols are not of the same length. Even when the total number of responses is the same for two records, it is highly unlikely that the distribution of codes or scores to each of the 10 cards will be the same. This is both an asset and a liability for the test. It is a liability because it restricts the full usefulness of normative comparisons and makes for greater difficulty in establishing useful normative data (Cronbach, 1949). Holtzman pointed out, "Providing a subject with only 10 inkblots and permitting him to give

as many or as few responses as he wishes characteristically results in a set of unreliable scores with sharply skewed distributions."¹ The Cronbach-Holtzman criticism concerning the variability of the number of responses cannot be denied, but they erred in suggesting that this makes the test psychometrically unapproachable. It is quite true that this composite of measurement problems constitutes a difficult challenge for the statistician, and a virtual nightmare for the psychometric purist, but none have been unresolvable in the context of contemporary statistical methods, plus the use of reasonably large samples of data.

As noted in Chapter 3, much of the criticism of the test was fomented by a lack of understanding about the nature of the test. But some of the misunderstanding was also generated by a misuse or overgeneralization of the term *score*. The procedure of translating Rorschach responses into Rorschach symbols traditionally has been called scoring. Unfortunately, the use of the word *score* carries with it, in the realm of psychology, some concepts of measurement that are not always useful or appropriate to Rorschach scoring. Once a protocol has been collected from a subject, each response is *coded*. The coding is called scoring, but most of the coding assigned does not involve numbers. They are not ordinal scores as used in an intelligence or achievement test. In effect, the coding procedure reduces the response into a logical and systematic format, a special Rorschach language. It is like a system of shorthand used to record various components that exist in a response. It is only in very rare instances that the score or code for any single response becomes interpretively important. For instance, a response scored *Do Fo A* simply indicates that the

person responded to a common detail area of the blot, and gave a frequently reported animal response using the contours of the blot to delineate the animal.

The Rorschach scores that are crucial to interpretation are the frequency scores for each of the codes and the numerous percentages, ratios, and other metrically useful derivations that are calculated from them. Collectively, they represent the *Structural Summary* of the record. Although some substance of the response is lost in the coding (scoring) translation from words to symbols, the data derived from those codes allow an evaluation of many psychological features of the person that otherwise would not be possible. The procedure of scoring or coding each response is critically important, because each contributes to the Structural Summary of the protocol.

The codes selected for use in the Comprehensive System represent a combination of those derived from other systems for which empirical support has been established, plus some new codings that have evolved as the system has matured. Most of Rorschach's original symbols are included. He recognized the importance of coding responses and devised a format for doing so that consisted of five categories: (1) Location (to which feature(s) of the blot did the subject respond?), (2) Determinant (What features of the blot contribute to the formulation of the answer?), (3) Form Quality (Is the object described appropriate for the blot contours used?), (4) Content (What is the class of content to which the response belongs?), and (5) Popular (Does the response occur with a high frequency in the general population?). Each of the systematizers retained this basic format in their own systems and it has proved useful.

Beck (1937) and Hertz (1940) added a sixth category for Organizational Activity, to account for responses involving the meaningful integration of blot features. Rapaport et al. (1946) also added a category of Special Scores designed to note strange verbiage and pathognomic features in responses. The work of Friedman (1952) has led to

¹ In fact, Holtzman devised an inkblot test consisting of 45 blots in which subjects are permitted to give only one response per blot. By controlling for the number of responses, statistical manipulations are accomplished more easily and the use of a psychogram is appropriate. Although considerable normative and reliability data have been reported for the Holtzman Inkblot Method, data concerning validity are somewhat more limited.

the development of an eighth category related to the location selection, which concerns the Developmental Quality of that selection. Although the number of specific codes or scores within each category has increased or decreased as the result of research findings, each of these eight categories remains useful to the ultimate richness of interpretation that is derived from the structural data. Some responses are coded for as few as five of these categories, whereas others will be marked by coding from six, seven, or all eight.

There is only one symbol (*P*) if the response is Popular, used for each of 13 high-frequency answers. Each of the remaining seven categories have multiple symbols. There are three symbols for the Location, *W* (whole blot), *D* (common detail area), and *Dd* (unusual detail area), and the symbol *S* is added to any of the three if white space is also involved. One of four Developmental Quality (DQ) symbols is added to the Location coding. Many more options exist when coding the Determinants. Symbols are used to denote the use of form, chromatic color, achromatic color, each of three kinds of shading, and each of three kinds of movement. One of four symbols is used to signify the appropriateness of the form use (FQ). The symbols for coding the content of the responses are logical abbreviations, such as *H* for human, *A* for animal, *Bt* for botany, and so on. When responses involve integrating or organizing the blot or blot areas in a complex manner, a numerical score for Organizational Activity (Z Score) is also assigned to that answer. Two kinds of Special Scores are used. They are also abbreviations. One kind notes the presence of cognitive slippage in the response, such as *DV*, which is the abbreviation for deviant verbalization. The second set of Special Scores is used to note unique characteristics of the response, such as *AG*, which is employed for movement answers in which the action is aggressive.

The constancy of the Rorschach language permits interpreters to recognize the same characteristics in a single record, and across records. The composite frequencies for each code yield a base of data, and when those frequencies are

numerically translated into ratios and percentages, the breadth of information concerning personality features and/or psychopathology becomes very substantial.

The *cardinal rule* of coding (or scoring) Rorschach responses is that the code (or score) should represent the cognitive operation that occurred at the time the person gave the answer. This is a very difficult objective to achieve and this is the main reason that the Inquiry creates some hazards to the overall process. Nonetheless, the objective of coding *only* the process reflected in the original response cannot be emphasized enough, particularly to the Rorschach novice. The coder-interpreter must resist the temptation to consider the original response and the information developed in the Inquiry as being continuous, for this is an illogical assumption. Many events transpire between the original response and the Inquiry and, as noted earlier, the latter occurs under a much different structure than the former.

Although the *cardinal rule* in coding is easy to understand (although not always easy to apply), the second most important rule in coding is that *all of the components that appear in the response should be included in the coding*. Rorschach endorsed this principle, although his scheme for coding was much less elaborate than developed by those following in his footsteps.² Each of the Rorschach Systems developed after his death made some provision for this, although Klopfer later deviated from this principle.³ Some

² Rorschach's format for coding is much more brief than developed by other systematizers. In part, this is because his premature death left much of his work incomplete. However, possibly more important, the blots used in his investigation contained very little shading. Most of the shading components that exist in the figures now used were either created, or exaggerated, by printing problems that developed when his monograph was published. In the subsequent development of the test, several newer codes have been required to account for responses that include the use of shading.

³ In the early 1940s, Klopfer, out of concern that determinants were being scored too liberally, decided to adopt the position that only one determinant should be given full weight in the interpretation. Thus, instead of using the

illustrations of the coding process may be useful before specifically addressing each of the eight coding categories. Each of these illustrations involves a relatively common or Popular response to Card III.

RESPONSE

III Ths ll a person, mayb a man, I guess

INQUIRY

E: (Rpts S's response)

S: Yes, right here (points to D9)

E: I'm not sure I'm seeing it lik u r, help me.

S: Here is his head & body & legs

This is a simple response. The person has reported only one figure, whereas most people report two in this blot. Nonetheless, it is still a common answer. The coding for this answer is:

Location & DQ	Determinant & FQ	Content	Popular
<i>Do</i>	<i>Fo</i>	<i>H</i>	<i>P</i>

The coding of *Do Fo H* indicates that the person used a common detail area of the blot, *D*, and identified it as a single or unitary object, *o*. The Determinant of *F* indicates that only the form of the blot area was identified to justify the object. The Form Quality code, *o*, indicates that the use of the form was conventional, and the Content of the response, *H*, signifies that it is a human. The code *P* indicates that it is a frequently given response.

principle of blended determinants that had been suggested by Rorschach, he moved to a tactic of scoring only one determinant as the "main" determinant, and all others in a response were called "additional" and quantitatively assigned half weight. In a 1965 interview at Asilomar, California, Klopfer expressed some regret about that decision. However, he maintained that the Main-Additional dichotomy he created did, in fact, preclude the interpreter from overemphasizing determinants that may not have existed in the response proper but which might have been provoked by questioning in the Inquiry.

A second response to Card III shows how the coding will become more complex as the response increases in complexity:

RESPONSE

III Ths 11 2 wm stirring sthg in a pot

INQUIRY

E: (Rpts S's response)

S: That's right, thy r here (points to D9), one on each side, c their breasts & thy hav hi heels on

E: U said there's a pot?

S: (points to D7) Ths here ll a pot & it ll thyr stirring sthg in it, I dkno wht

In this example, the client provides most of the information necessary for coding during the Response Phase. Human figures are reported, and described in movement. The onset of the Inquiry confirms the location of the humans, and a second content (shoes) is added. The examiner appropriately questions about the location of the pot with an awareness that the person may *spontaneously* add other features not previously reported. If this occurred, they would be pursued further in the Inquiry. The coding will be:

Location & DQ	Determinant & FQ	Pair	Contents	Popular	Score
<i>D+</i>	<i>Mao</i>	(2)	<i>H,Hh,Cg</i>	<i>P</i>	3.0

This coding/scoring also shows that the person used a common detail area of the blot (*D*) and, in doing so, some form of synthesizing activity occurred (+). In other words, he or she mentally broke up the area into separate objects (two people and a pot) and then organized them in a meaningful way. The Determinant (*Ma*) indicates that the response was based on form features and involved active human movement. The notation of a pair (2) indicates that the person reported two similar objects, using the symmetrical features of the blot as the basis for this impression. The Contents of the response are human (*H*) for the women, household (*Hh*) for the pot, and clothing (*Cg*) for the

shoes. It is a Popular response and, because it is complex, it is assigned an Organizational Activity Z score of 3.0, which is the value used when the objects organized are in adjacent detail areas on this blot. Some responses will have multiple determinants, and can have more than one Special Score. The following is an example:

RESPONSE

III It's a cpl of skeletons in a battle, it looks really vicious

INQUIRY

E: (Rpts S's response)

S: Yeah wow, c here thy r (points to *DI*) c the heads & legs, thy don't look real, more lik a skeleton

E: More lik a skeleton?

S: Thyr kinda narrow & stiff lookg, the head is just round, it all looks boney, thy both do

E: U said thyr in a battle, really vicious

S: Yeah, lik thyr fiting w eo & thy got bld all over ths wall in back, the red splotches r lik bld on the wall behnd thm

This response is a good illustration of how information developed spontaneously in the Inquiry can contribute to the coding of the response. It is not until after the examiner has asked for clarification (in a battle, really vicious), that the person reveals the presence of two determinants, color (red blood), and dimensionality (behind them), that were not obvious in the basic response. They have been given without provocation and will be included in the Determinant coding for the response. When multiple determinants occur in a response, each is separated from the next by a dot (.) that notes a determinant *Blend*. The complete coding for this response is shown below.

The entire blot was used (*W*), plus the white background (*S*). There is synthesis of the reported objects. Therefore, a DQ code of + is added to the location scoring. There are three determinants in the response, active human-like movement (*Ma*), chromatic color without any specific form (*C*), and dimensionality (*FD*). Thus, the blend of *Ma.C.FD*. Although the response is strange, the use of the form features is appropriate, and the FQ code of *o* (ordinary) has been added to the Determinant coding. There are two similar objects reported, using the blot symmetry as the basis, requiring that a pair (2) be coded. The Content codes are (*H*), to denote human-like figures, and *Bl* for blood. There is organizing activity, and a Z Score of 5.5 has been entered. Finally, two Special Scores are assigned. The first identifies the implausible relationship of the skeletons in activity. Skeletons do not fight, except in cartoons and there is no implication that this is a cartoon. Also skeletons do not bleed. When highly implausible relationships are reported, they are called *Fabulized Combinations*, and scored as *FABCOM*. The second Special Score is used to note the characteristic of the movement. It is clearly aggressive, and the score *AG* is included in the coding.

In most instances, the coding for a single response will have little or no interpretive significance, regardless of whether it is simple, as in the first illustration, or complex as in the last example. As noted earlier, the codes are converted into frequency data, and numerous ratios and proportions are generated from those data. The frequencies are derived by listing each of the codes or scores separately in consecutive sequence. This is called the *Sequence of Scores*. A printout of a scoring sequence for a protocol is shown in Table 5.1 on page 72. The numbers that have been entered after the Location codes identify which area of the blot has been used for the response.

Location & DQ	Determinant & FQ	Pair	Contents	Popular	Z Score	Special Scores
WS+	Ma.C.FDo	(2)	(H), Bl		5.5	FABCOM, AG

Table 5.1 Illustration of a Sequence of Scores.

Card	No.	Loc.	No.	Determinant(s)	(2)	Content(s)	Pop	Z	Special Scores
I	1	WSo	1	FC'o		Art,(A)		3.5	AB
	2	W+	1	Fu	2	Art,(H)		4.0	GHR
II	3	W+	1	FMa.FC'.CPo	2	A,BI		4.5	AG,MOR,PHR
	4	DS+	5	ma.VFu		Sc,CI		4.5	
III	5	D+	1	Mao	2	H,Id	P	3.0	AG,GHR
	6	Do	3	Fu		Sc			
IV	7	W+	1	Ma.FD.TFo		H,Cg,Na	P	4.0	MOR,PHR
V	8	Wo	1	FMa.FC'u		A		1.0	AG,PHR
VI	9	Wo	1	FTo		Ad	P	2.5	MOR
	10	D+	4	mao		Sc,Na		2.5	
	11	Dv	1	C'		An			MOR
VII	12	W+	1	Mao	2	H,Ls	P	2.5	AG,GHR
VIII	13	Wo	1	FC.FC'o		Art		4.5	AB
	14	DSo	3	Fo		An		4.0	PER
IX	15	W+	1	FD.FC.FVu		Art		5.5	
X	16	Dv	1	CF.mpo		Na,Art			
	17	D+	10	FCo	2	A		4.0	FAB
	18	DSo	11	FC'-		Xy		6.0	
	19	D+	6	Mao	2	H,Cg		4.0	COP,GHR

The Sequence of Scores makes it easy to tally the frequency for each of the variables, and they are entered in the upper section of the *Structural Summary*. The ratios and percentages that form the basis of the interpretive process are then calculated and entered in the lower section of the *Structural Summary*. A printout of the *Structural Summary*, derived from the Sequence of Scores shown in Table 5.1, is presented in Table 5.2 on page 74.

When completed, the *Structural Summary* provides a wealth of information concerning some of the psychological characteristics of the person. It is vital that the coding be accurate. The codes used have been selected and defined to minimize ambiguity and maximize the research yield concerning each variable. Numerous studies have been conducted to ensure adequate interscorer reliability for each variable, using a *minimum* standard of 85% correct agreement among coders. Two such studies were completed for the 3rd Edition of this work, one involving 20 coders and 25 nonpatient records, and the second involving 15 coders and 20

psychiatric records. The results of these studies are included in the various sections of the next several chapters, in which the codings that constitute the Rorschach language are described in detail for each of the eight basic categories.

REFERENCES

- Beck, S. J. (1937). Introduction to the Rorschach method: A manual of personality study. *American Orthopsychiatric Association Monograph No.1.*
- Beck, S. J. (1945). *Rorschach's test. II: A variety of personality pictures.* New York: Grune & Stratton.
- Beck, S. J., & Molish, H. B. (1967). *Rorschach's test. II: A variety of personality pictures* (2nd ed.). New York: Grune & Stratton.
- Cronbach, L. J. (1949). Statistical methods applied to Rorschach scores: A review. *Psychological Bulletin*, 46, 393-429.
- Exner, J. E. (1969). *The Rorschach systems.* New York: Grune & Stratton.
- Friedman, H. (1952). Perceptual regression in schizophrenia: An hypothesis suggested by the use of the Rorschach test. *Journal of Genetic Psychology*, 81, 63-98.

Table 5.2 Illustration of a Structural Summary.

Structural Summary									
Location Features		Determinants			Contents		Approach		
		Blends	Single						
Zf = 16		FM.FC'.CF	M = 3		H = 4		I	WS.W	
ZSum = 60.0		m.VF	FM = 0		(H) = 1		II	W.DS	
ZEst = 52.5		M.FD.TF	m = 1		Hd = 0		III	D.D	
		FM.FC'	FC = 1		(Hd) = 0		IV	W	
W = 9		FC.FC'	CF = 0		Hx = 0		V	W	
D = 10		FD.FC.FV	C = 0		A = 3		VI	W.D.D	
W+D = 19		CF.m	Cn = 0		(A) = 1		VII	W	
Dd = 0			FC' = 2		Ad = 1		VIII	W.DS	
S = 4			C'F = 0		(Ad) = 0		IX	W	
			C' = 1		An = 2		X	D.D.DS.D	
			FT = 1		Art = 5		Special Scores		
			TF = 0		Ay = 0			Lv1	Lv2
DQ			T = 0		Bl = 1		DV	=0x1	0x2
+ = 10			FV = 0		Bt = 0		INC	=0x2	0x4
o = 7			VF = 0		Cg = 2		DR	=0x3	0x6
v/+ = 0			V = 0		Cl = 1		FAB	=1x4	0x7
v = 2			FY = 0		Ex = 0		ALOG	=0x5	
			YF = 0		Fd = 0		CON	=0x7	
			Y = 0		Fi = 0		Raw Sum6	=1	
			Fr = 0		Ge = 0		Wgtd Sum6	=4	
			rF = 0		Hh = 0				
			FD = 0		Ls = 1		AB	=2	GHR = 4
			F = 3		Na = 3		AG	=4	PHR = 3
					Sc = 3		COP	=1	MOR = 4
					Sx = 0		CP	=0	PER = 1
					Xy = 1				PSV = 0
			(2) = 6		Id = 1				
Ratios, Percentages, and Derivations									
R = 19		L = 0.19			FC:CF+C = 3:2		COP = 1	AG = 4	
					Pure C = 0		GHR:PHR = 4:3		
EB = 4:3.5	EA = 7.5	EBPer = N/A			SumC':WSumC = 6:3.5		a:p = 8:1		
eb = 5:10	es = 15	D = -2			Afr = 0.58		Food = 0		
	Adj es = 13	Adj D = -2			S = 4		SumT = 2		
					Blends:R = 7:19		Human Cont = 5		
FM = 2	SumC' = 6	SumT = 2			CP = 0		Pure H = 4		
m = 3	SumV = 2	SumY = 0					PER = 1		
							Isol Indx = 0.47		
a:p = 8:1	Sum6 = 1	XA% = 0.89			Zf = 16		3r+(2)/R = 0.32		
Ma:Mp = 4:0	Lv2 = 0	WDA% = 0.89			W:D:Dd = 9:10:0		Fr+rF = 0		
2AB+Art+Ay = 9	WSum6 = 4	X-% = 0.05			W:M = 9:4		SumV = 2		
Mor = 4	M- = 0	S- = 1			Zd = +7.5		FD = 2		
	Mnone = 0	P = 4			PSV = 0		An+Xy = 3		
		X+% = 0.63			DQ+ = 10		MOR = 4		
		Xu% = 0.26			DQv = 2		H:(H)+Hd+(Hd) = 4:1		
PTI = 0	DEPI = 6*	CDI = 2			S-CON = 7		HVI = No		OBS = No

- Hertz, M. R. (1940). *Percentage charts for use in computing Rorschach scores*. Cleveland, OH: Western Reserve University, Brush Foundation and the Department of Psychology.
- Hertz, M. R. (1952). The Rorschach: Thirty years after. In D. Brower & L. E. Abt (Eds.), *Progress in clinical psychology*. New York: Grune & Stratton.
- Hertz, M. R. (1963). Objectifying the subjective. *Rorschachiana*, 8, 25-54.
- Holtzman, W. H., Thorpe, J. S., Swarz, J. D., & Heron, E. W. (1961). *Inkblot perception and personality*. Austin: University of Texas Press.
- Klopfer, B., Ainsworth, M. D., Klopfer, W. G., & Holt, R. R. (1954). *Developments in the Rorschach technique. I: Technique and theory*. Yonkers-on-Hudson, NY: World Books.
- Klopfer, B., & Kelley, D. M. (1942). *The Rorschach technique*. Yonkers-on-Hudson, NY: World Books.
- Piotrowski, Z. A. (1957). *Perceptanalysis*. New York: Macmillan.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Diagnostic psychological testing* (Vol.2). Chicago: Yearbook Publishers.
- Schafer, R. (1954). *Psychoanalytic interpretation in Rorschach testing*. New York: Grune & Stratton.
- Zubin, J., Eron, L. D., & Schumer, F. (1965). *An experimental approach to projective techniques*. New York: Wiley.

CHAPTER 6

Location and Developmental Quality: Coding and Criteria

The first, and least complex, of the coding decisions concerns the location of the response, that is, to which part of the blot did the response occur? The open-endedness of the test permits either of two approaches in formulating answers. The person may decide to use the entire blot or may select only a portion of it. When the former occurs, it is a *whole* response and the coding is straightforward, using the symbol *W*. All other answers are *Detail* responses, and the symbol used in coding the location will depend on whether the area selected is one that is commonly used. If so, the symbol *D* will be used to note this. Conversely, if the area selected is not among those used frequently, the symbol *Dd* is assigned. Whenever the person includes use of the white space (ground), the symbol *S* is added to the location code.

The symbols and criteria used in the Comprehensive System for coding location are essentially those described in the Beck methodology, which follows from Rorschach's suggestion. The discrimination between *D* and *Dd* is based on empirical findings, thereby avoiding some of the arbitrary or overinclusive features that exist in some of the other approaches to coding location. In some instances the information necessary for deciding on the location code will be given in the response, such as, "Well the whole thing looks like . . .," or "If I use only this upper part it could be" When this occurs, only a brief verification concerning

location area is required in the Inquiry. However, in many responses, the person does not specify the area of the blot being used for the response, and this matter becomes an important target during the Inquiry. Ordinarily, it is easily derived, especially when the client has been prepared properly for the Inquiry, which will include mention of this objective. Nonetheless, some people remain vague about location and when that occurs, the examiner must persist by using instructions such as, *Run your finger around it carefully*, or *Point to some of the features so that I can see it, too*. The four symbols used in coding location and the criterion for each are shown in Table 6.1.

THE *W* RESPONSE (WHOLE)

The criterion for coding or scoring *W* constitutes an either-or issue. Either the person uses the entire blot, or less than the entire blot. Only the former is coded *W*. It is quite important that the examiner verify that the entire blot has been used in a response. Occasionally, a person will report a response that is like those commonly given to the whole but, in fact, has not used the entire blot in forming the answer. For example, the response, "bat," is the most frequently given answer to both Cards I and V. About 97% of persons who give either of those responses use the entire blot, but a small minority exclude some portions of the blot

Table 6.1 Symbols Used for Coding the Location of Responses.

Symbol	Definition	Criterion
W	Whole response	Where the entire blot is used in the response. All portions must be used.
D	Common detail response	A frequently identified area of the blot.
Dd	Unusual detail response	An infrequently identified area of the blot.
S	Space response	A white space area is used in the response (scored only with another location symbol, as in WS, DS, or DdS).

in order to be more precise about the answer. Those kinds of responses are *not* coded as *W* even though only a few small segments are omitted.¹

Under the routine conditions of administration, there should be no reason for misidentification of whole answers. In two interscorer reliability studies, one involving 20 scorers and 25 records and the second involving 15 scorers across 20 records, the percentage of agreement for coding *W* is 99% in both, with the disagreements resulting from scorer error.

THE D RESPONSE (COMMON DETAILS)

The criterion for coding *D* follows the suggestion of Rorschach. He referred to these as "Normal" details of the plates. He suggested that the differentiation of these areas from other areas of the blots should be based on the frequency with which people respond to them. During the early development of the Rorschach, several efforts were made to codify the obvious detail areas with numerical designations to provide easy identification of the areas. These efforts were not always based on the same format for decision making, nor did those

involved always agree on Rorschach's intent. The result was several schemes for identifying the different blot areas. When the nucleus of the Comprehensive System was formulated in 1972, it was decided to use the Beck method of coding detail areas. That decision was based on three considerations. First, Hertz (1970) had compared her format for designating details with that used by Beck, Piotrowski, and Klopfer. She noted that she and Beck agreed on 90 of 97 areas, which she had designated as being appropriate for scoring *D*. Second, the Beck scheme included the designation of 25 other areas that Hertz does not consider. Third, two surveys (Exner, 1974; Exner & Exner, 1972) revealed that most practitioners were already familiar with the Beck format.

In preparation for the second edition of this volume, two random samples, each consisting of 1,500 records drawn from a larger protocol pool, were used to review the frequency of responses to each of the 103 blot areas designated as *D* by the Beck format. One sample included 750 nonpatient adults and children and 750 nonschizophrenic adult and children outpatients. The second consisted of 750 psychiatric inpatients, including 150 schizophrenics, and 750 nonpatient adults and children. The distribution of the responses by the various groups, including schizophrenics, is not significantly different from those given by any of the other groups. The purpose of the review was to provide some cross validation for the Beck format of distinguishing common (*D*) from uncommon (*Dd*) detail areas. Thus, a cutoff criterion of 5% was established by which an area would continue to be designated as *D* if at least 5% of the

¹ Two of the systematizers, Klopfer and Hertz, added a second type of *W* response, that of the cutoff whole, using the symbol *Wx* for coding. The rationale was that Rorschach sometimes coded a *W* for Card III even though the outside red areas were omitted in the response. Klopfer later defined the cutoff whole as any response using at least two-thirds of the blot. Investigation of this code revealed low interscorer reliability, and no empirical basis for interpreting it differently than *Dd* responses. Thus it was excluded from those variables integrated into the Comprehensive System.

subjects gave at least one response to the area. The results indicated that 26 of the 103 areas designated by Beck as *D* fall short of the 5% criterion. This is not too surprising, because Beck apparently tended to number *D* areas in terms of the frequencies that he observed in his relatively small samples. In other words, he assigned the designation *D1* to the area most frequently used, *D2* to the next most frequently used, and so on. Most of the *D* areas, specified by Beck, that did not meet criterion involve higher numbers, such as *D7*, *D8*, and so on.

In addition to the discovery that 26 areas previously specified as *D* should be reclassified as *Dd*, it was also found that there are five areas, one each on Cards IV, VI, VII, VIII, and IX, that had not been numbered by Beck, to which more than 5% of subjects respond. These have been added to the listing of *D* areas. Thus, the current format for the Comprehensive System includes 82 areas that are designated as *D*. Some are used much more frequently than others. This is because they are more discrete or semidiscrete stimuli in the field or, more often, because they have contours or other characteristics similar to known or imagined objects that are easily identifiable as possible responses. For instance, about 95% of all persons taking the test report the *D1* area of Card VIII as a separate object, usually an animal. It is both discrete and has contours that are readily identified as an animal form. There are some areas in every card that are used more frequently in forming answers by persons taking the test.

Many *D* areas encompass large segments of the blot, but this is not always the case. Several involve only small portions of the total figure. The numbering of the *D* areas is shown by card in the figures that are included in Table A of the Appendix.

THE *Dd* RESPONSE (UNUSUAL DETAILS)

Any response that is not a *W* or a *D* is coded as *Dd*. These are areas of the blots that are used infrequently. A criterion of less than 5% of use, by

subjects, has been established to define *Dd* areas. It could be argued that a cutoff of 5% is too low. Although that is possible, it is important to note that most *D* areas are selected by 20% or less of the subjects taking the test. Actually, a few *D* locations are selected by a high percentage of subjects (40% or more). A second, larger grouping of *D* areas are selected for use by between 15% and 20% of subjects. This second grouping of *D* locations is selected significantly more frequently than a third grouping of *D* areas, which is used by between 5% and 10% of persons taking the test. This finding could be used as a basis to favor a differentiation of two or three types of common details. Klopfer attempted this, but research conducted in relation to the formation of the Comprehensive System indicates that such a differentiation has no interpretive usefulness.

None of the areas identified as *Dd* approach the 5% selection frequency criterion. A few are selected by as many as 3% of subjects, but most have selection frequencies of 1% or 2%, and many are selected by less than 1% of people taking the test. These are areas that attract little attention for the majority of people taking the test, or if they do attract attention, the potential responses generated from them are apparently discarded most of the time. Beck (1937, 1944) found it useful to provide numerical designations for some *Dd* areas. His listing has been expanded by adding those areas that he had specified as *D* but which do not meet the 5% criterion, plus some other areas that have been identified in research at the Rorschach Research Foundation.

The majority of *Dd* areas involve small segments of the figures, but size is not necessarily a determining factor. In many instances, a person may deliberately eliminate some small areas of the whole blot, or of a common detail area, in an effort to be more precise. This creates a *Dd* area. In fact, the majority of *Dd* selections are *not* numerically designated. This is because the frequency of each is so low, any attempt to number

them systematically would create an unmanageably large listing.

THE S RESPONSE (WHITE SPACE DETAILS)

The symbol *S* is included in the Location coding whenever a white space area of the card is included in the response. The use of white space can occur in either of two ways. The person may integrate the white space with other blot areas, or may elect to give a response that involves only a white space area. Regardless of which form of space use occurs, the *S* is never scored alone as a location code. Instead, it is always used in conjunction with one of the three primary location codes, as in *WS*, *DS*, or *DdS*. The rationale for using *S* only with another location code is to maintain consistency in evaluating the three primary types of location selections.

LOCATION CODING FOR MULTIPLE D AREAS

Some *D* areas are a combination of other *D* areas. For example, the *D1* area on Card III is actually the composite of the two *D9* areas plus *D7*. Similarly, the composite of *D1* and *D3* on Card IX constitutes the *D12* area. Naturally, a response to an area listed as *D* will be coded as *D*. However, there are instances when people will combine *D* areas when giving a response. In some of these answers, the appropriate coding will be *D*, whereas in others the coding of *Dd* is correct. The differentiation depends on whether the combination involves only one object. If so, the answer will be coded as *Dd*. Conversely, if each of the combined *D* areas represent separate objects, the location code will still be *D* even though more than one common detail area is involved. These are synthesized responses and will be noted as such by the coding for Developmental Quality.

For example, on Card III someone might report a person (*D9*) working on some pottery (*D7*). In

this answer, the integrity of each *D* area is maintained by reporting separate objects, one for the person and one for the pottery. On the other hand, the same two areas might be integrated more uniquely if the response were a person (*D9*) with a grotesque hand (*D7*). In this answer, the individual reports the composite of the two *D* areas as a single object (person). The combination of *D9* + *D7* is not a *D* area. Thus, the coding of *Dd* is required.

Once a coder has become familiar with the *D* areas, misidentifications of *D*, *Dd*, and *S* should not occur unless the coder is negligent. In the two interscorer reliability studies mentioned previously, the percent correct coder agreement for *D* is 99%, for *Dd* is 99%, and for *S* is 98%. In each instance when disagreement occurred, it was the result of coder error.

DEVELOPMENTAL QUALITY (DQ)

The interpretive value of the data concerning location selection is increased substantially by the addition of a second code to differentiate the *quality* of specification and/or organization that marks the response. All responses, regardless of whether they involve *W*, *D*, *Dd*, or *S* areas, are not formulated in the same manner. Rorschach recognized these differences and discussed them as "Apperceptive" (*Erfassungstypen*) approaches. He noted that some people manifest a "keen imagination" in forming responses, whereas others approach the figure in a more simplistic or even concrete manner. All of those involved in the development of the test after Rorschach's death have described these differences, using such words as unorganized, simple, organized, combinatory, and superior.

For example, the unorganized response is one in which the person uses the blot in a manner that does not require the specification of features. Responses such as clouds, blood, paint, dirt, an island, and so on are examples of this concrete and somewhat nonchalant use of the stimulus field. The field is identified in a way that circumvents the necessity to organize specific stimulus features in

meaningful relationships. Clouds, islands, skins, and so on, can take any of a broad variety of external shapes and there are no specific form demands concerning the internal characteristics of the object. At a higher, but still economical, level the blot or blot area is defined as a single object that has specific features such as, a bat, a person, a tree, the skin of a leopard, the island of Barbados, and so on. In forming these types of answers, there is the necessity of organizing some of the stimulus features in a meaningful way. Combinatory or superior responses require a higher level of cognitive action, such as "two people picking up a large boulder," or "a woman running after a child up a small hill," or "a submarine gliding through the water with its shadow being cast in the moonlight." The location codes do not provide information concerning the organization of features that is required in forming the response. Consequently, a second code is necessary to identify this characteristic.

Meili-Dworetzki (1939, 1956) was among the first to recognize the potential in the Rorschach for differentiating levels of mental complexity and flexibility. She studied levels of location selection in children of various ages, basing her investigations on the assumptions of Rorschach (1921), Piaget (1924), and Beck (1933). She found a general "enrichment" in location selection and integration with increasing age levels, and suggested the possibility of studying cognitive development through a differentiation of various location responses. Rapaport, Gill, and Schafer (1946) perceived the same potential and suggested an experimental approach to differentiate types of *W* responses. Friedman (1952, 1953) developed the most elaborate method for differentiating location specification. His work is based on Werner's (1948, 1957) theory of cognitive development. It is similar to, but more inclusive than the Rapaport approach, being applicable to both whole and detail responses. The Friedman approach employs six categories for evaluating location specification, three of which are considered "developmentally high"

codes or scores, and three reflecting "developmentally low" scores. Research on the Friedman method appears to establish that the technique can be useful for the study of developmental levels of cognitive functioning.²

Attempts to integrate the Friedman approach for coding DQ directly into the Comprehensive System encountered three problems. Two of the categories tend to overlap for criteria, creating considerable difficulty in establishing adequate levels of interscorer agreement. Two other categories are based on a questionable assumption that five of the blots are markedly different than the remaining five in terms of stimulus unity. Possibly most important, one of the "developmentally low" categories is directly correlated with the inaccurate use of the blot contours, that is, the form quality (FQ) of the response. Whereas the DQ codes are related to levels of cognitive functioning, the coding for FQ relates to perceptual accuracy. Although there is some correlation between the two, it is far less than is implied by the direct relation used in the Friedman criteria for coding DQ.

When the Comprehensive System was first published (Exner, 1974), no solution to the overlap problem between DQ and FQ was readily apparent; however, the other two issues were resolved by reducing the number of categories from six to four. The four categories were represented by the symbols + (synthesis), o (ordinary), v (vague), and - (arbitrary). The arbitrary code (-) is the one directly related to FQ, and research ensued during the next several years to resolve the interpretive problem created by that spurious relationship. The issue was ultimately resolved by reviewing findings concerning levels of cognitive activity that had been differentiated in a series of problem-solving studies, plus data that had been collected using the

² Although the Friedman method does distinguish differences in children, as identified by chronological and mental age, it probably deals more specifically with general cognitive operations. Thus, the concept of development as used traditionally in psychology in the study of children is not directly applicable.

Halstead-Reitan neuropsychological test battery. Each data set was divided into quartiles and the first and fourth quartiles compared with special attention to responses that had been coded either v or - for DQ, but which also included some synthesis activity. Those types of answers were assigned either of two experimental DQ scores, v/+ or -/+ (Exner, 1983). As hypothesized, persons with a higher frequency of synthesized responses (+, v/+, or -/+) fall more often in the upper quartile. In other words, they demonstrate higher levels of performance in problem solving, concept formation, and have better performances on the conceptual tests in the Halstead-Reitan battery. Conversely, persons with few synthesis responses and a higher than average frequency of - and v responses, fall in the lowest quartile of the distribution based on these kinds of performance.

The second step in this analysis was to determine if the presence of the arbitrary code, -, contributed significantly to the differentiation of the first and fourth quartiles of the distribution. The results were essentially negative. The Friedman arbitrary DQ coding occurred only slightly, but not significantly more often among persons in the lowest quartile. These findings led to the elimination

of the arbitrary code for DQ, and the addition of another code to signify synthesis activity occurring in responses that previously would have been coded as v (vague). It is the code v/+, used to identify answers in which some synthesizing activity has occurred among objects for which there is no form demand. Thus, four DQ codes are used in the Comprehensive System. The criterion for each is presented in Table 6.2. In the two previously cited studies concerning interscorer reliability, the percent correct agreement for the + code is 95%, for v/+ is 94%, for o is 96%, and for v is 95%. As with the coding for location selection, interscorer disagreements resulted from scorer error.

Synthesis Responses

For each of the two types of synthesis (+ and v/+) responses the criterion statement includes, "... separate but related." More than one object must be involved *and* they must be reported in a meaningful relationship to each other. For example, *two birds sitting on a fence*, would be coded + because there are three objects in the response and all are interrelated. The two birds are sitting on

Table 6.2 Symbols and Criteria Used for Developmental Quality.

Symbol	Definition	Criterion
+	Synthesized response	Two or more objects are described as separate but related. <i>At least one</i> of the objects involved must have a specific form demand, or be described in a manner that creates a specific form demand (e.g., a dog walking among some bushes, a man with a funny hat on, an airplane flying through some clouds, the head of a little girl, she has a hair ribbon).
o	Ordinary response	An area of the blot is identified as a single object which has features that create a natural form demand or the <i>description of the object is such as to create</i> a specific form demand (e.g., a fir tree, a cat, a totem pole, a maple leaf, a bat, a flag, a man's head).
v/+	Synthesized response	Two or more objects are described as separate but related. <i>None of the objects</i> involved have a specific form demand and <i>the articulation does not introduce a form demand for any of the objects</i> (e.g., clouds coming together, some sort of bay with the vegetation around the shore, a rock and some dirt around it).
v	Vague	An object is reported which has no specific form demand, <i>and the articulation does not introduce</i> a specific form demand for the object (e.g., a cloud, the sky, the colors of sunset, some ice).

the same fence. If the response had been, "two birds," alluding to the symmetry of the blot, the DQ code would be o (ordinary) as there is no meaningful relationship between them.

A response such as *two clouds coming together*, would be scored v/+ as the words "coming together" creates the required relationship, but neither object (clouds) includes a specific form requirement. Conversely, *two clouds are building up, like expanding, and coming together*, would be coded + because the person has injected a form requirement with the words, "building up, like expanding."

If the separate objects involve clothing on a figure, the clothing must be specified in a way that *alters the natural contour of the figure*, or be a discrete blot area itself for the synthesis coding of + to be assigned. For example, people often report one or two human figures on Card III. Occasionally, the figure is described as wearing a tuxedo, which is defined because the figure is dark in coloring. This is coded o rather than + because the same blot area is being used for both the figure and the clothing, and the clothing does not change the natural contour of the figure. On the other hand, if the figure (D9) were described as wearing a jacket and the lapel (Dd27, which is part of D9) is sticking out, or a person (D9) wearing mittens (Dd31), a + would be appropriate. In the first example the lapel has altered the natural contour of the person. In the second two, discrete blot areas have been used. Similarly, if the figure (D9) is described as wearing shoes (Dd33, which is part of D9), the coding of + is appropriate.

The Issue of Form Demand

The criteria for the DQ codings of + and o include the requirement of *specific form demand*. This means that the object being reported generally has a consistent form, that is, when the noun identifying the object is used, some specific shapes are implied. For example, the words man, bird, butterfly, spider, lion, chair, ship, house, and so on, each identify a class of objects that have some

specific form characteristics *even though some variations may exist within each class*. Men may be short or tall, thin or fat, and so on. Similarly, chairs can come in a very wide variety of shapes, yet they all have some common features or form requirements.

Any object that *does have* a specific form requirement must be coded as o (ordinary), or + (synthesis) if it is in a meaningful relationship with another object *even if the second object does not have a form demand*.

Other words such as cloud, lake, island, foliage, paint, abstract art, represent classes of objects that can take almost any of a wide variety of shapes. The objects in each class do not have a specific form requirement or demand. When objects that have no specific form demand are reported, the DQ coding will be v (vague), or v/+ (synthesis) if it is meaningfully combined with another object that also has no form demand. However, at times, a person will report an object that has no specific form requirement, but in elaborating on the object *the individual may inject a form demand*. For example, the response, "cloud" will usually be coded v, however, a person might elaborate, "building up like a cumulus cloud." This injects a form demand, requiring the coding of o rather than v. Similarly, *a leaf or a bush*, or blood will usually be coded v, but some sort of form demand can be injected into any of those. For example, *a leaf that has these three pointed parts* or, *a leaf, here's the stem and the pointed top*, are both answers in which a form demand has been included by the person, and the DQ coding would be o. Likewise, blood that is *running down* includes form demand, as does *a bush with all the branches sticking up*. Both would have a DQ coding of o.

Examples

The location component of each response will always include two symbols, one for the area used and the second for the developmental quality. Some examples of the various types of codings are shown in Table 6.3.

Table 6.3 Examples of Coding for Location and Developmental Quality.

Card	Response	Location and DQ Coding
I	Two witches dancing around a woman (W)	W+
	A piece of coral (D1)	Dv
	Two ghosts (DdS30) climbing up a hill (Dd24)	DdS+
II	Two dogs rubbing noses (D6)	D+
	Some sort of colorful map (W)	Wv
	Icicles (Dd25)	Ddo
III	Some pieces of a puzzle (W)	Wv
	A person seeing his reflection in a mirror (D1)	D+
	A catfish (D2)	Do
IV	A man sitting on a tree stump (W)	W+
	Some storm clouds coming together (W)	Wv/+
	A couple of boots, one on each side (D6)	Do
V	A bat (W)	Wo
	An x-ray of some insides (W)	Wv
	A map of the United States (W)	Wo
VI	A piece of torn fur (D1)	Dv
	A bearskin rug, the r the leg parts (D1)	Do
	Some shrubs or somthg on a hill (D3)	Dv/+
VII	A necklace (W)	Wo
	An island in the ocean (WS)	WSv/+
	A bird (Dd25) gliding toward his nest (D6)	Dd+
VIII	A brightly lit chandelier (W)	Wo
	Some insides of a dissected animal (W)	Wv
	Some torn cloth hanging on a stick tht goes up betwn thm (D5)	D+
IX	A big explosion (W)	Wv
	An atomic explosion with the mushroom cloud (W)	Wo
	A dried-up bloodstain (Dd28)	Ddv
X	A lot of underwater creatures swimming around these rocks, like fish and eels (W)	W+
	A lot of things like you see in the water, like fishes (D2) and crabs (D1) and thgs (W)	Wo
	A Buddha (DdS29) with a jewel in the navel (D3)	DdS+

SUMMARY

Accuracy in coding location is essential. Although the criteria are reasonably straightforward, the process may seem to be more simplistic than is actually the case, and caution is always in order. The overall impact of the location coding on the interpretation of the protocol can be considerable. Several interpretive hypotheses concerning cognitive functioning, perceptual scanning, needs for achievement, awareness of convention, and proneness to economize are often based on the composite of these data. If they are accurate, so too will be

the interpretive postulates but, if they are inaccurate, the interpretive yield can suffer significantly.

REFERENCES

- Beck, S. J. (1933). Configurational tendencies in Rorschach responses. *American Journal of Psychology*, 45, 432-443.
- Beck, S. J. (1937). Introduction to the Rorschach method: A manual of personality study. *American Orthopsychiatric Association, Monograph No. 1*.
- Beck, S. J. (1944). *Rorschach's test. I: Basic processes*. New York: Grune & Stratton.

- Exner, J. E. (1974). *The Rorschach: A Comprehensive System. Volume I*. New York: Wiley.
- Exner, J. E. (1983). *1983 Alumni newsletter*. Bayville, NY: Rorschach Workshops.
- Exner, J. E., & Exner, D. E. (1972). How clinicians use the Rorschach. *Journal of Personality Assessment*, 36, 403-408.
- Friedman, H. (1952). Perceptual regression in schizophrenia: A hypothesis suggested by the use of the Rorschach test. *Journal of Genetic Psychology*, 81, 63-98.
- Friedman, H. (1953). Perceptual regression in schizophrenia: An hypothesis suggested by the use of the Rorschach test. *Journal of Projective Techniques*, 17, 171-185.
- Hertz, M. R. (1970). *Frequency tables for scoring Rorschach responses* (5th ed.) Cleveland, OH: Western Reserve University Press.
- Meili-Dworetzki, G. (1939). Le test Rorschach et l'évolution de la perception. *Archives de Psychologie*, 27, 111-127.
- Meili-Dworetzki, G. (1956). The development of perception in the Rorschach. In B. Klopfer et al. *Developments in the Rorschach technique. II: Fields of application*. Yonkers-on-Hudson, NY: World Books.
- Piaget, J. (1924). *Le Judgement et le Raisonnement chez l'Enfant*. Neuchatel, Switzerland: Delachaux & Niestle.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Diagnostic psychological testing* (Vol. 2). Chicago: Yearbook Publishers.
- Rorschach, H. (1921). *Psychodiagnostik*. Bern: Bircher.
- Werner, H. (1948). *Comparative psychology of mental development* (Rev. ed.). Chicago: Follett.
- Werner, H. (1957). The concept of development from a comparative and organismic point of view. In D. B. Harris (Ed.), *Concept of development*. Minneapolis: University of Minnesota Press.

CHAPTER 7

Determinants: Coding and Criteria

The most important and most complex of the coding decisions concerns the response determinant(s). These are the features of the blot that have contributed to the formation of the response. Usually, when people identify things in the environment, they are influenced by multiple stimulus elements, such as shapes, colors, shading, apparent movement. This is also true with the Rorschach figures that, in a microcosmic way, contain several of these kinds of visual stimuli.

Although the Rorschach figures are nothing more than a series of arbitrary forms, colors, and shades, each does have many salient stimulus features that are similar to, but not exactly the same as, objects known or imagined by the person taking the test. This similarity permits the individual to classify the inkblot figures, or parts of them, when confronted by the question, *What might this be?* This process of classifying actually creates more potential answers than are required. Thus, some must be discarded.

Usually, after several possible answers are discarded, there are still more than enough to meet the demands of the task, and another decision process occurs. It is the selection of which answer(s) to deliver from those still available. This final selection is influenced very markedly by the habits, or personality features, of the person, plus the psychological state of the individual at the time of taking the test. The needs, attitudes, sets, conflicts, response styles, and so on, all can become influential in the final selection of the answers that are delivered.

Unfortunately, there is no way to measure this complex intrapsychic process accurately when it occurs during the several seconds between the presentation of the card and the delivery of the first answer. However, the product of the process, *the response itself*, usually will contain elements that reflect some of the features that have been involved in the process. When these elements are coded correctly, the coding represents something about the psychological operations or features of the person. The coding for a single response provides little, if any, useful information about the characteristics of the person, but frequency data for each of the codes can be used to generate a broad array of information about the psychology of an individual. The determinant coding is especially important in contributing some of this information.

Determinant coding would be a relatively easy task if all responses could be discretely identified as being based on only one stimulus feature but, often, that is not the case. Usually, more than one of the various stimuli is involved as in, *a yellow rose with a long stem* (color and form), or, *a man in the dark shadows* (form and shading). In other answers, form features may be used to create the impression of movement as in *a person bowing*, or *a bat flying*. Sometimes, the symmetry of the blot is used to create the impression of a reflection, such as, *a woman seeing herself in a mirror*. In still other instances, the form may be used simply for purposes of identification as in, *It looks like a bat because of the shape of the wings and the body*.

The numerous ways in which the stimulus features of the figures can be used to create responses have continually posed a challenge to those seeking to devise a systematic coding for responses. Recommendations for determinant codes have varied considerably from system to system and, often have been focal points of Rorschach controversy. Rorschach originally suggested five codes for the identification of determinants, one for form (*F*), one for human movement (*M*), and three for chromatic color (*FC*, *CF*, and *C*), two of which were used to indicate the relative importance of form in the color answer (1921). It was a relatively simple system that discounted the importance of separate codings for responses in which persons reported animal or inanimate movement, perceived dimensionality, reflections, or the use of the achromatic coloring as color. It contained no codes for shading type responses because most of the blots with which Rorschach did his work contained little or no shading. He became intrigued with the exaggerated shading features that were produced when the figures were printed, and introduced a sixth scoring symbol (*C*) in his last, posthumously published, paper (1923), to be used for "chiaroscuro" responses.

Rorschach's six codes provided the base from which others continued to study and refine the test. Unfortunately, each Rorschach systematizer preferred to use codes and criteria that, more often than not, are different than those selected by another systematizer and, in some instances, even different than those that Rorschach had suggested. The end product was an astonishing lack of agreement. Even where the same coding appears in two or more systems, the criterion for that code probably differs. In fact, there is no single determinant code for which all five American systematizers agreed on the criterion, and there are only a few determinant codes for which even two of the systematizers agreed to the criterion (Exner, 1969). For example, 16 different codes, representing 12 different types of color response were suggested, and an even greater number of codes were recommended for shading responses.

The selection of the codes and criteria for determinants in the Comprehensive System would have been relatively uncomplicated if any one system could be demonstrated as clearly superior to the others, but that is not the case. Some are overly elaborate, including components for which there is no empirical base, or containing "subscorings" that tend to misrepresent summary data. Others omit important components, or alter component criteria in such a way as to be inconsistent with coding definitions. Each of the codings for determinants, from each system, were considered and evaluated against research findings.

Consequently, 24 codes have been selected for use in the Comprehensive System to identify determinants. Five are the original codes that were used by Rorschach. Most of the others, and the criteria for them, have been selected from the various systems, mainly the Beck and Klopfer approaches. A few have been selected from research findings that have evolved since 1970. Collectively, the 24 codes represent seven broad categories, each of which characterizes the way in which the stimulus field has been used. The seven categories are: (1) Form, (2) Movement, (3) Color (chromatic), (4) Color (achromatic), (5) Shading, (6) Dimensionality (form), and (7) Symmetry Use. The 24 coding symbols, and the criteria for them, are shown in Table 7.1.

THE FORM DETERMINANT (*F*)

Rorschach selected the symbol *F* as the appropriate coding for answers in which form features contribute to the identification of an object. This code has been incorporated into all subsequent systems, using essentially the same criterion. *F* is coded for any response that includes Form as one of the determinant features, and is coded separately when no other determinant is involved.

There are many ways in which a person may specify the use of form in his or her response. Probably the least frequent is the use of the word *form*. Instead, people often use the word *shape*, or more commonly, they simply allude to different

Table 7.1 Symbols and Criteria for Determinant Coding.

Category	Symbol	Criterion
Form	<i>F</i>	<i>Form answers.</i> Used for responses based exclusively on the fore features of the blot.
Movement	<i>M</i>	<i>Human movement response.</i> Used for responses involving the kinesthetic activity of a human, or of an animal or fictional character in human-like activity.
	<i>FM</i>	<i>Animal movement response.</i> Used for responses involving a kinesthetic activity of an animal. The movement perceived must be congruent to the species identified in the content. Animals reported in movement not common to their species should be coded as <i>M</i> .
	<i>m</i>	<i>Inanimate movement response.</i> Used for responses involving the movement of inanimate, inorganic, or insensate objects.
Chromatic color	<i>C</i>	<i>Pure color response.</i> Used for answers based exclusively on the chromatic color features of the blot. <i>No</i> form is involved.
	<i>CF</i>	<i>Color-form response.</i> Used for answers that are formulated <i>primarily</i> because of the chromatic color features of the blot. Form features are used, but are of secondary importance.
	<i>FC</i>	<i>Form-color response.</i> Used for answers that are created mainly because of form features. Chromatic color is used, but is of secondary importance.
	<i>Cn</i>	<i>Color naming response.</i> Used when the colors of the blot are identified <i>by name</i> , and with the intention of giving a response.
Achromatic color	<i>C'</i>	<i>Pure achromatic color response.</i> Used when the response is based exclusively on the grey, black, or white features of the blot, when they are clearly used as color. <i>No</i> form is involved.
	<i>C'F</i>	<i>Achromatic color-form response.</i> Used for responses that are created <i>mainly</i> because of the black, white, or grey features, clearly used as color. Form features are used, but are of secondary importance.
	<i>FC'</i>	<i>Form-achromatic color response.</i> Used for answers that are based <i>mainly</i> on the form features. The achromatic features, clearly used as color, are also included, but are of secondary importance.
Shading-Texture	<i>T</i>	<i>Pure texture response.</i> Used for answers in which the shading components of the blot are translated to represent a tactual phenomenon, with no consideration to the form features.
	<i>TF</i>	<i>Texture-form response.</i> To be used for responses in which the shading features of the blot are interpreted as tactual, and form is used secondarily, for purposes of elaboration and/or clarification.
	<i>FT</i>	<i>Form-texture response.</i> Used for responses that are based <i>mainly</i> on the form features. Shading features of the blot are translated as tactual, but are of secondary importance.
Shading-Dimension	<i>V</i>	<i>Pure vista response.</i> Used for answers in which the shading features are interpreted as depth or dimensionality. <i>No</i> form is involved.
	<i>VF</i>	<i>Vista-form response.</i> Used for responses in which the shading features are interpreted as depth or dimensionality. Form features are included, but are of secondary importance.
	<i>FV</i>	<i>Form-vista response.</i> Used for answers that are based <i>mainly</i> on the form features of the blot. Shading features are also interpreted to note depth and/or dimensionality, but are of secondary importance to the formulation of the answer.
Shading-Diffuse	<i>Y</i>	<i>Pure shading response.</i> Used for responses that are based exclusively on the light-dark features of the blot that are completely formless and do not involve reference to either texture or dimension.

(continued)

Table 7.1 Continued.

Category	Symbol	Criterion
Form Dimension	<i>YF</i>	<i>Shading form response.</i> Used for responses based primarily on the light-dark features of the blot, not involving texture or dimension. Form features are included, but are of secondary importance.
	<i>FY</i>	<i>Form-shading response.</i> Used for responses that are based mainly on the form features of the blot. The light-dark features of the figure, not used to articulate texture or dimension, are included as elaboration and/or clarification and are secondary to the use of form.
	<i>FD</i>	<i>Form based dimensional response.</i> Used for answers in which the impression of depth, distance, or dimensionality is created by using the elements of size and/or shape of contours. <i>No</i> use of shading is involved in creating this impression.
Pairs & Reflections	(2)	<i>The pair response.</i> Used for answers in which two identical objects are reported, based on the symmetry of the blot. The objects must be equivalent in all respects, but must <i>not</i> be identified as being reflected or as mirror images.
	<i>rF</i>	<i>Reflection-form response.</i> Used for answers in which the blot or blot area is reported as a reflection or mirror image, because of the symmetry of the blot. The object or content reported has no specific form requirement, as in clouds, landscape, shadows, etc.
	<i>Fr</i>	<i>Form-reflection response.</i> Used for answers in which the blot or blot area is identified as reflected or a mirror image, based on the symmetry of the blot. The substance of the response is based on form features, and the object reported has a specific form demand.

form features of the object reported. The examiner should not be concerned if the words, "form," or "shape" are not used, provided that the form characteristics to which the individual refers are *obvious*, as in, *These are the wings, and the body, and the tail*, or, *This is the head and here are the legs, and this is the tree trunk*.

The symbol *F* will always be included with the coding for other determinants when form features are used, *except* when the coding for human or inanimate movement (*M* or *m*) are the only ones assigned to an answer. *Form* is subsumed in the codes *M* and *m*. The absence of a *specific form demand* for an object does not necessarily mean the absence of form. For instance, the response *a rain cloud* might not include any specific form use as in, *It's just all black like a rain cloud*, which would be coded only for achromatic color (*C'*). Conversely, the person might not mention the achromatic color and simply say, *It's all irregular and more narrow at the top like rain clouds*, which would be coded *F*.

The decision to code *F* is straightforward when no other determinant is included in the response. However, examiners sometimes struggle with the issue of whether form is primary or secondary in an answer when another determinant is involved. This probably occurs most often when chromatic color is the other determinant. For example, the response, *A very pretty flower*, explicated in the Inquiry is, *Well, it's red like a rose and this would be the petals and the stem is here*, includes both chromatic color and form. However, the issue lingers about whether form is primary or secondary in forming the answer. The combination of words given in the response plus the first Inquiry explanation could be used as a basis from which to argue in favor of either a *CF* or *FC* coding.

Examiners always should attempt to resolve these issues by a prompt, such as, *I'm not sure I see it as you do, help me*. If the person responds to the prompt by saying, *It just looks like a rose, see the petals and the stem*, the coding of *FC* is most

appropriate as the new information focuses on the form. Conversely, if the response to the prompt is, *It's just so pretty, like a bright red rose, here are the petals*, the coding of *CF* is correct because the individual has re-emphasized the coloring and not the form. Unfortunately, some people will respond to an Inquiry prompt by simply rephrasing the things that have been stated earlier, such as, *Well, it's like a rose, it's red and has the petals and stem*. When that occurs, the decision about whether the form use is primary or secondary becomes a judgment call made by the examiner.

Responses based exclusively on the Form features usually comprise the largest single determinant category in a record, and ordinarily Form features will be included in more than 95% of all responses given.

THE MOVEMENT DETERMINANTS

Three kinds of movement responses may occur in Rorschach answers: (1) those involving humans or human-like behaviors, (2) those involving animals, and (3) those involving inanimate or inorganic objects or forces. Rorschach scored for only one type of movement, that involving humans or human behaviors. He specifically discounted animal movement as having the same meaning as human movement, and provided no scoring for it. Beck (1937, 1944, 1961) defended Rorschach's position and also excluded any scoring for animal or inanimate movement in his method. Klopfer (1936, 1942, 1954), Hertz (1942, 1951, 1970), and Piotrowski (1937, 1947, 1957) each took the opposite position, suggesting that animal and inanimate movement answers have some of the same process as human movement responses. They included scorings for animal and inanimate movement, using the same coding symbols, but each offered different criteria for the scoring of inanimate movement.

Both positions are, at least partially, correct. There is very little empirical evidence to suggest that the three types of movement all represent different levels of the same psychological process. However, research suggests that the three types of

responses represent relatively different mental operations. Thus, codings for the three types of movement are included in the Comprehensive System.

Human Movement (*M*)

The symbol *M*, and its criterion, are taken from Rorschach's work. Each of the systems developed after Rorschach include this code for human movement answers and three of those (Beck, Klopfer, & Hertz) use Rorschach's criterion. The Piotrowski (1947, 1957) and Rapaport-Schafer (1946) systems both include modifications of Rorschach's criterion. Piotrowski restricts the scoring of *M* to responses occurring to an area sufficiently ambiguous as to make any type of movement or posture equally plausible. It is a caution designed to avoid scoring *M* falsely, as in responses where movement is injected to explain form features. Rapaport restricts the scoring of *M* to responses that include complete, or nearly complete, human figures. Neither of the arguments for these criterion restrictions follows from an empirical base, nor is the logic strongly persuasive.

M is coded for human activity. The movement may be active such as in running, jumping, fighting, and arguing, or it may be passive, such as in sleeping, thinking, smiling, and looking. In either instance, *M* is scored. As noted earlier, the code *F* is *not used* when *M* is scored. The *M* coding assumes form, although there are rare instances in which no form exists in an *M* response, such as when the only content is a sensory experience such as, *It looks like gloom*, or, *It reminds me of happiness*, or, *It has a bad smell*.

M should not be assumed simply because human figures are reported. The movement itself must be articulated for a response to be scored *M*. In most answers, the movement is reported in the response phase but, often, the movement is not reported until the Inquiry for the response. For example, a person might respond to Card III, *It looks like two people here*, which appears to be only a form answer. If, however, after the examiner begins the Inquiry the person says, *Yes, they are*

right here, it looks like two people doing something, it seems logical to assume that movement had been perceived during the response phase but had not been articulated. Spontaneity should be the guideline and *M* should never be scored if there is reason to believe that the movement was provoked by an Inquiry question of the examiner.

Although most *M* responses involve human or human-like figures, *M* may also occur where the content is animal. These are answers in which the movement described involves a human activity that is not common to the animal species. For example, *Two beetles arguing* would be coded *M*, as would *Two bears playing gin rummy*. Conversely, *Two beetles fighting over something*, or *Two bears playing together*, would not be scored *M*, but instead would be coded for animal movement (*FM*).

Animal Movement (*FM*)

This coding was originally suggested by Klopfer and Sender (1936). Klopfer's justification for the use of *FM* was based primarily on Rorschach's posthumously published 1923 article, in which he referred to a special consideration for responses that are form based but which also tend toward the use of movement or color. Because some of Rorschach's examples included animals in movement, it was natural for Klopfer to include the designation of animal movement in this category. However, by 1942, Klopfer decided to use a different symbol to represent "tendencies toward" (→), and reserve the *FM* coding exclusively for animal movement responses. His criterion for coding *FM* is used in the Comprehensive System.

FM is coded for any response involving animals in activity that is *common* to the species, such as *A dog barking*, *A bat flying*, or *A leopard stalking its prey*. Most *FM* answers include a whole animal, but some will involve only a partial animal figure such as, *Two animals scampering behind a bush, you can only see their legs*. Sometimes, the content of the *FM* response will be fictional or mythological, such as a dragon or a unicorn. However, examiners should be careful to

distinguish science fiction creatures described as animals in animal activity from those in human-like activity. The coding for the latter is *M*. In rare instances, an animal will be reported in an animal activity that is not common to its species such as, *A snake flying along*. These responses are coded *M* to reflect the human fantasy that has been involved in forming the answers.

Inanimate Movement (*m*)

The third type of movement response involves inanimate, inorganic, or insensate objects. The code *m*, first suggested by Piotrowski (1937), is used to identify these responses. Klopfer and Hertz use *m* in their systems, but with a substantially broader criterion than devised by Piotrowski, including in it, phallic forces, facial expressions, and human abstracts. The Piotrowski criterion are used for the coding of inanimate movement in the Comprehensive System. It is reasonably precise and does not overlap with either the *M* or *FM* categories. The *m* is used to code any movement reported that involves nonhuman and nonanimal objects.

Inanimate movement responses span a broad range, such as fireworks, explosions, blood dripping, water falling, trees bending, a flower opening, clouds rising, a flag flying, cloth being torn, a bullet smashing through something, flames leaping up, a leaf floating, and so on. In some instances, the inanimate movement is static. For instance, a skin stretched to dry, or, a coat hanging on a post, are both coded *m* because there is an *unnatural tension state*. Likewise, a hanged man dangling from a rope is coded *m*, whereas a dead person lying on the ground is *not* coded *m*. On the other hand, a dead person lying on the ground *with his head tilted up*, would be coded *m*. The determination that an unnatural tension state exists when considering the coding of *m* for static objects is very important. Occasionally, inanimate objects are reported in human-like activity or having human characteristics, such as *trees dancing a waltz*, or, *a flower feeling bad because it's*

wilting. These kinds of responses should be coded *M* rather than *m*.

In two studies concerning correct interscorer agreement (see Table 7.9), coders identify the three types of movement correctly for more than 90% of the responses involved. Most of the disagreements concerning *M* and *FM* were caused by coder neglect, but some legitimate disagreements occurred about coding *M* or *FM* for science fiction creatures in human-like behavior. Most of the disagreements about *m* concerned answers in which an object was reported in a form erroneously identified as static movement, such as a rug laying on the floor, which should not be coded *m* because no unnatural tension state exists.

ACTIVE-PASSIVE SUPERSCRIPTS (^a, ^p)

A second important coding must be added to *all* movement answers. It is a superscript that notes whether the movement is active or passive (^a for active, ^p for passive). Rorschach suggested the importance of evaluating movement answers for "Flexion" (moving toward the center of the blot) or "Extension" (moving away from the center of the blot). Beck et al. (1961) called attention to a third movement stance, *static*. Piotrowski (1957, 1960) studied various kinds of movement answers and suggested differentiations such as active-passive, cooperative-noncooperative, and aggressive-friendly. Research findings from several studies designed to test some of Piotrowski's hypotheses indicate that the active-passive dimension provides the most consistently valid interpretive yield.

One of the more frustrating issues associated with the development of the Comprehensive System has involved attempts to establish precise criteria for the application of the *a* and *p* superscripts. That objective has not been achieved, but most people do seem able to agree on the meaning of the terms *active* and *passive* when applied to movement answers. Reliability studies, in which trained coders are instructed to differentiate large numbers of movement answers as either active or

passive, have a surprisingly positive yield. For example, 10 postdoctoral fellows show a 93% agreement for 150 movement answers, whereas 10 briefly trained high school students show a 94% agreement for the same 150 answers (Exner, 1978). In another study, 20 nonpatient adults (none trained in psychology), and 20 second-year psychology graduate students, completing a course in assessment that included Rorschach training, were asked to code 300 words, most of them verbs, as either active or passive. The lay group was provided with a few examples to create a conceptual framework, such as "leaping," "brawling," and "zooming" to illustrate active movement and "gliding," "thinking," and "languishing" to illustrate passive movement. The students were asked to code in the context of their Rorschach training.

The 20 students agreed unanimously on 213 (71%) of the 300 words, and at least 15 of the 20 (75%) agreed on the coding for 70 of the remaining 87 words. The overall percentage of agreement among the student group was 95%. The lay group agreed unanimously on only 112 (37%) of the 300 words, but at least 15 of the 20 lay raters agreed on 121 of the remaining 188 words. The overall percentage of agreement for the lay group was 86%. These data indicate that, even when coding occurs *without the context of the full response*, there is very high agreement among those with formal Rorschach training, and substantial agreement among those who have no training. Table 7.2 shows the 300 words used in this study, and includes the coding for each agreed to by the majority of persons in each group, and the number of persons that constitute the majority. It is included here only as a reference for those learning to make the active-passive differentiations, but it *should not be used* as a guide for coding decisions.

The decision to code active or passive must be made in the context of the complete response. Research findings concerning the interpretation of the relationship between active and passive movement suggest that "talking" should always be coded *passive*. Thus, "talking" serves as a benchmark against which questionable issues are judged.

Table 7.2 Results of an Active-Passive Word Study for Two Groups for 300 Items, Showing the Majority Agreement for Each Item for Each Group, with * Indicating That Within Group Agreement Is Less than 75%.

Item	Lay Group N=20		Students N=20		Item	Lay Group N=20		Students N=20	
	Score	N	Score	N		Score	N	Score	N
Abandoned	<i>p</i>	19	<i>p</i>	18	Challenging	<i>a</i>	18	<i>a</i>	20
Accelerating	<i>a</i>	20	<i>a</i>	20	Charging	<i>a</i>	20	<i>a</i>	20
Accusing	<i>a</i>	20	<i>a</i>	19	Chasing	<i>a</i>	20	<i>a</i>	20
Acting	<i>a</i>	17	<i>a</i>	18	Chewing	<i>a</i>	18	<i>a</i>	20
Admonishing	<i>a</i>	19	<i>a</i>	20	Clapping	<i>a</i>	19	<i>a</i>	20
Aggravated (looks)	<i>a</i>	18	<i>a</i>	16	Climbing	<i>a</i>	20	<i>a</i>	20
Aggressive	<i>a</i>	20	<i>a</i>	20	Clinging (helplessly)	<i>p</i>	20	<i>p</i>	20
Agitated	<i>a</i>	18	<i>a</i>	19	Clutching	<i>a</i>	18	<i>a</i>	20
Ailing	<i>p</i>	16	<i>p</i>	19	Composed (looks)	<i>p</i>	16	<i>p</i>	18
Aimless (feeling)	<i>p</i>	20	<i>p</i>	20	Confused (looks)	<i>p</i>	17	<i>p</i>	20
Alarmed	<i>a</i>	18	<i>a</i>	20	Creeping (animal)	<i>a</i>	18	<i>a</i>	20
Amazed (looks)	<i>p</i>	14*	<i>p</i>	15	Crouched (animal)	<i>p</i>	16	<i>p</i>	20
Amused (looks)	<i>p</i>	15	<i>p</i>	18	Crying	<i>p</i>	17	<i>p</i>	20
Anchored	<i>p</i>	20	<i>p</i>	20	Cuddled	<i>p</i>	18	<i>p</i>	20
Angry (looks)	<i>a</i>	20	<i>a</i>	20	Dancing	<i>a</i>	20	<i>a</i>	20
Anguished (looks)	<i>p</i>	16	<i>p</i>	14*	Dealing (cards)	<i>a</i>	18	<i>a</i>	20
Animated	<i>a</i>	15	<i>a</i>	18	Deciding	<i>a</i>	14*	<i>a</i>	17
Annoyed (looks)	<i>p</i>	14	<i>p</i>	16	Defensive (looks)	<i>p</i>	15	<i>p</i>	19
Anxious	<i>a</i>	17	<i>a</i>	15	Defeated (looks)	<i>p</i>	19	<i>p</i>	20
Apologizing	<i>p</i>	16	<i>p</i>	14*	Demanding	<i>a</i>	20	<i>a</i>	20
Arguing	<i>a</i>	20	<i>a</i>	20	Demoralized	<i>p</i>	18	<i>p</i>	20
Ascending (smoke)	<i>p</i>	19	<i>p</i>	20	Depressed	<i>p</i>	20	<i>p</i>	20
Aware (looks)	<i>p</i>	14*	<i>p</i>	13*	Deprived (looks)	<i>p</i>	17	<i>p</i>	20
Bad (looks)	<i>a</i>	11*	<i>p</i>	12*	Deteriorating	<i>p</i>	20	<i>p</i>	20
Baffled	<i>p</i>	16	<i>p</i>	17	Determined (looks)	<i>a</i>	17	<i>a</i>	19
Baking	<i>p</i>	18	<i>p</i>	16	Determined (feels)	<i>a</i>	19	<i>a</i>	20
Balancing (a top)	<i>a</i>	17	<i>a</i>	20	Disappointed (feels)	<i>p</i>	18	<i>p</i>	20
Basking (in the sun)	<i>p</i>	19	<i>p</i>	20	Discussing	<i>a</i>	17	<i>a</i>	20
Bathing	<i>a</i>	14*	<i>a</i>	16	Disturbed (upset)	<i>a</i>	14*	<i>p</i>	13*
Battering	<i>a</i>	20	<i>a</i>	20	Dreaming	<i>p</i>	16	<i>p</i>	20
Battling	<i>a</i>	20	<i>a</i>	20	Dripping (water)	<i>p</i>	20	<i>p</i>	20
Beaming (the sun)	<i>p</i>	16	<i>p</i>	20	Drowning	<i>a</i>	13*	<i>p</i>	18
Bending (in wind)	<i>p</i>	19	<i>p</i>	20	Dropping (leaf)	<i>p</i>	20	<i>p</i>	20
Bewildered (looks)	<i>p</i>	18	<i>p</i>	20	Dying	<i>p</i>	20	<i>p</i>	20
Bleeding	<i>p</i>	20	<i>p</i>	20	Ejecting	<i>a</i>	16	<i>a</i>	18
Blissful (looks)	<i>p</i>	17	<i>p</i>	20	Embarrassed	<i>p</i>	13*	<i>p</i>	17
Blowing (hair)	<i>p</i>	18	<i>p</i>	20	Erect (penis)	<i>a</i>	19	<i>a</i>	20
Boasting	<i>a</i>	20	<i>a</i>	20	Euphoric (looks)	<i>a</i>	14	<i>a</i>	15
Bouncing (ball)	<i>a</i>	20	<i>a</i>	17	Excited	<i>a</i>	20	<i>a</i>	20
Breaking	<i>a</i>	18	<i>a</i>	16	Exhausted	<i>p</i>	20	<i>p</i>	20
Bumping (balls)	<i>p</i>	14*	<i>p</i>	15	Exploding	<i>a</i>	20	<i>a</i>	20
Burning (fire)	<i>p</i>	13*	<i>p</i>	17	Facing	<i>p</i>	14*	<i>p</i>	20
Calmly	<i>p</i>	19	<i>p</i>	20	Falling	<i>p</i>	20	<i>p</i>	20
Calling	<i>a</i>	20	<i>a</i>	20	Feeling (physical)	<i>a</i>	16	<i>a</i>	14*
Carrying	<i>a</i>	20	<i>a</i>	20	Feeling (mental)	<i>p</i>	18	<i>p</i>	16
Carving	<i>a</i>	18	<i>a</i>	20	Ferocious	<i>a</i>	20	<i>a</i>	20
Casual (looks)	<i>p</i>	17	<i>p</i>	20	Fighting	<i>a</i>	20	<i>a</i>	20
Catching	<i>a</i>	20	<i>a</i>	20	Filling (a pool)	<i>p</i>	14*	<i>p</i>	19
Celebrating	<i>a</i>	20	<i>a</i>	20	Firm (muscle)	<i>a</i>	15	<i>a</i>	18

Table 7.2 Continued.

Item	Lay Group N=20		Students N = 20		Item	Lay Group N = 20		Students N = 20	
	Score	N	Score	N		Score	N	Score	N
Fixing	<i>a</i>	20	<i>a</i>	20	Leading	<i>a</i>	17	<i>a</i>	20
Flapping (in wind)	<i>p</i>	20	<i>p</i>	20	Leering (a wolf)	<i>a</i>	15	<i>a</i>	20
Flapping (bird)	<i>a</i>	18	<i>a</i>	20	Leaning (against)	<i>p</i>	17	<i>p</i>	20
Fleeing	<i>a</i>	20	<i>a</i>	20	Lifting	<i>a</i>	20	<i>a</i>	20
Floating	<i>p</i>	20	<i>p</i>	20	Limping	<i>a</i>	14*	<i>a</i>	13*
Flowing (river)	<i>p</i>	19	<i>p</i>	20	Loading (cargo)	<i>a</i>	20	<i>a</i>	20
Flying	<i>a</i>	20	<i>a</i>	20	Longing (looks)	<i>p</i>	14*	<i>p</i>	18
Frightened (looks)	<i>p</i>	18	<i>p</i>	20	Loosely (held)	<i>p</i>	11*	<i>p</i>	16
Gambling	<i>a</i>	16	<i>a</i>	20	Loving (2 people)	<i>a</i>	18	<i>a</i>	20
Gasping (for breath)	<i>a</i>	17	<i>a</i>	12	Lustful (looks)	<i>a</i>	15	<i>a</i>	20
Gazing	<i>p</i>	18	<i>p</i>	20	Lying (down)	<i>p</i>	20	<i>p</i>	20
Glaring (at someone)	<i>a</i>	17	<i>a</i>	20	Mad (looks)	<i>a</i>	17	<i>a</i>	20
Graciously (standing)	<i>a</i>	14*	<i>p</i>	16	Magical	<i>a</i>	14*	<i>p</i>	13*
Grinding	<i>a</i>	17	<i>a</i>	19	Making (a cake)	<i>a</i>	20	<i>a</i>	20
Growing (plant)	<i>a</i>	15*	<i>p</i>	14*	Mashing	<i>a</i>	20	<i>a</i>	20
Hallucinating	<i>a</i>	13*	<i>p</i>	17	Mean (looks)	<i>a</i>	16	<i>p</i>	15
Hammering	<i>a</i>	20	<i>a</i>	20	Meditating	<i>p</i>	14*	<i>p</i>	20
Hanging (man)	<i>p</i>	18	<i>p</i>	20	Menstruating	<i>p</i>	16	<i>p</i>	20
Happy (looks)	<i>a</i>	17	<i>a</i>	19	Miserable (looks)	<i>p</i>	20	<i>p</i>	20
Harassed (looks)	<i>p</i>	14*	<i>p</i>	17	Mixing	<i>a</i>	20	<i>a</i>	20
Helping	<i>a</i>	20	<i>a</i>	20	Modeling (standing)	<i>p</i>	14*	<i>p</i>	20
Hesitant	<i>p</i>	15	<i>p</i>	19	Modeling (clay)	<i>a</i>	11*	<i>a</i>	18
Holding	<i>a</i>	17	<i>a</i>	20	Mounting	<i>a</i>	20	<i>a</i>	20
Hostile (looks)	<i>a</i>	20	<i>a</i>	17	Moving	<i>a</i>	20	<i>a</i>	20
Hunting	<i>a</i>	20	<i>a</i>	20	Mugging	<i>a</i>	20	<i>a</i>	20
Hurting	<i>a</i>	20	<i>a</i>	20	Murdering	<i>a</i>	20	<i>a</i>	20
Idle	<i>p</i>	19	<i>p</i>	20	Musing (alone)	<i>p</i>	15	<i>p</i>	20
Imagining	<i>a</i>	13*	<i>p</i>	18	Nervous (feels)	<i>a</i>	13*	<i>p</i>	18
Impatient (looks)	<i>a</i>	14*	<i>p</i>	14*	Nervous (looks)	<i>p</i>	12*	<i>p</i>	20
Impulsive	<i>a</i>	18	<i>a</i>	20	Nodding (to sleep)	<i>p</i>	20	<i>p</i>	20
Inclining	<i>p</i>	13*	<i>p</i>	20	Noticing (someone)	<i>a</i>	17	<i>p</i>	20
Inert	<i>p</i>	20	<i>p</i>	20	Numb (feels)	<i>p</i>	18	<i>p</i>	20
Injured	<i>p</i>	20	<i>p</i>	20	Objecting	<i>a</i>	20	<i>a</i>	20
Inspecting	<i>a</i>	16	<i>p</i>	14*	Oblivious	<i>p</i>	20	<i>p</i>	20
Intercourse	<i>a</i>	20	<i>a</i>	20	Observing	<i>p</i>	16	<i>p</i>	20
Interested	<i>a</i>	13*	<i>a</i>	17	Offensive (looks)	<i>a</i>	13*	<i>p</i>	14*
Isolated (feels)	<i>p</i>	18	<i>p</i>	20	Oozing	<i>p</i>	20	<i>p</i>	20
Jeering	<i>a</i>	20	<i>a</i>	20	Opening (a door)	<i>a</i>	16	<i>a</i>	20
Jerking	<i>a</i>	19	<i>a</i>	20	Opposing	<i>a</i>	18	<i>a</i>	20
Jogging	<i>a</i>	20	<i>a</i>	20	Outraged	<i>a</i>	20	<i>a</i>	20
Joining (2 people)	<i>a</i>	18	<i>a</i>	20	Pacing	<i>a</i>	20	<i>a</i>	20
Jovial (looks)	<i>a</i>	17	<i>a</i>	18	Painful (feels)	<i>p</i>	14*	<i>p</i>	20
Jumping	<i>a</i>	20	<i>a</i>	20	Panting (a dog)	<i>p</i>	13*	<i>a</i>	16
Kidding (2 people)	<i>a</i>	20	<i>a</i>	19	Passing	<i>a</i>	20	<i>a</i>	20
Killing	<i>a</i>	20	<i>a</i>	20	Peaceful (looks)	<i>p</i>	20	<i>p</i>	20
Knowingly (looks at)	<i>p</i>	14*	<i>a</i>	17	Perplexed (looks)	<i>p</i>	15	<i>p</i>	20
Laboring	<i>a</i>	20	<i>a</i>	20	Picking up	<i>a</i>	20	<i>a</i>	20
Landing (plane)	<i>a</i>	18	<i>a</i>	16	Playing	<i>a</i>	20	<i>a</i>	20
Laughing	<i>a</i>	15	<i>a</i>	13*	Pleased (feels)	<i>p</i>	13*	<i>p</i>	17
Laying	<i>p</i>	20	<i>p</i>	20	Pleased (looks)	<i>p</i>	15	<i>p</i>	20
					Pondering	<i>p</i>	12*	<i>p</i>	20

(continued)

Table 7.2 Continued.

Item	Lay Group N=20		Students N=20		Item	Lay Group N=20		Students N=20	
	Score	N	Score	N		Score	N	Score	N
Preaching	a	20	a	20	Smoking (fire)	p	17	p	20
Pretending (sleep)	p	11*	p	16	Smoking (person)	a	18	a	20
Prowling	a	20	a	20	Sniffing	a	11*	p	19
Puffed (balloon)	p	14*	p	20	Speaking	a	16	a	14*
Pulling	a	20	a	20	Spilling (water)	p	14*	p	20
Pushing	a	20	a	20	Springing	a	16	a	20
Putting (golf)	a	20	a	20	Squall (rain)	a	14*	a	18
Queer (looks)	p	16	p	20	Stabbing	a	20	a	20
Querulous (looks)	p	15	p	20	Standing	p	13*	p	20
Quiet	p	20	p	20	Steaming water	p	18	p	20
Quivering	a	13*	p	14*	Stormy	a	13*	a	20
Racing	a	20	a	20	Stroking	a	11*	a	16
Raging (river)	a	20	a	20	Struggling	a	20	a	20
Raising (a log)	a	20	a	20	Stuck (in mud)	p	20	p	20
Ramming (2 cars)	a	20	a	20	Subdued (looks)	p	16	p	20
Rapturous	a	16*	p	18	Suffering	a	13*	p	17
Reaching	a	20	a	20	Suspicious (looks)	p	12*	p	20
Ready (to run)	a	20	a	20	Swimming	a	20	a	20
Reckless (looks)	a	12*	p	20	Taking	a	18	a	20
Refreshed	p	13*	p	11*	Talking	a	13*	p	18
Remorseful	p	15	p	17	Tapping	a	20	a	20
Reposing	p	20	p	20	Tearful	p	17	p	20
Resigned	p	16	p	20	Telling	a	14*	p	18
Resolute (looks)	a	13*	a	15	Terrorized (feels)	p	16	p	20
Reticent (looks)	p	11*	p	17	Thrilled	a	14*	a	13*
Revolving	a	17	a	20	Throwing	a	20	a	20
Riding (a horse)	a	20	a	20	Thumping	a	20	a	20
Ringing (bell)	a	14*	a	18	Tilted	p	14*	p	20
Ripping fabric	a	20	a	20	Toasting (people)	a	17	a	20
Roaring (lion)	a	20	a	20	Tormented (feels)	p	15	p	20
Roaring (water)	a	13*	p	18	Touching (2 people)	a	14*	a	17
Rolling (ball)	p	17	p	20	Tranquil (looks)	p	20	p	20
Rowing	a	20	a	20	Troubled (looks)	p	13*	p	20
Running	a	20	a	20	Turning (around)	a	20	a	16
Sad (looks)	p	18	p	20	Unconscious	p	20	p	20
Sad (feels)	p	20	p	20	Unsteady	p	14*	p	20
Sagging	p	16	p	20	Upset (feels)	p	13*	p	20
Sailing (boat)	p	14*	p	20	Vaulting (animal)	a	18	a	20
Satisfied (feel)	p	13*	p	19	Vibrating	a	20	a	20
Screaming	a	20	a	20	Vigorous	a	20	a	20
Seated	p	17	p	20	Violent	a	20	a	20
Seeing	p	15	p	20	Waiting	p	16	p	20
Seething	a	16	a	20	Walking	a	20	a	20
Shaking	a	16	a	18	Wanting	p	11*	p	16
Shocked	p	13*	p	20	Watching	a	13*	p	20
Singing	a	20	a	20	Weary (feels)	p	15	p	20
Sinister (look)	a	13*	a	16	Whirling	a	20	a	20
Skimming	a	17	a	14	Wounded	p	17	p	20
Sleeping	p	20	p	20	Writing	a	20	a	20
Slipping	p	15	p	20	Yielding	p	18	p	20
Smelling	a	12*	p	17					

In that context, "whispering," "standing," "looking," and the like, are easily defined as passive, whereas "yelling" and "arguing" are easily defined as active.

Some movement responses are always coded as *passive*. They are the answers in which the movement reported is *static*. The static feature of the response is usually created by qualifying the answer to make it an abstract, a caricature, or a picture. These are all coded *p* regardless of the description of the movement reported. Many static responses involve inanimate movement, such as, *An abstract of fireworks exploding on the Fourth of July*. The movement, "exploding," is clearly active, but it is qualified by the word *abstract*, and should be coded *m^p*. Likewise, *A painting of two people struggling to lift something*, or, *A drawing of two lions climbing a mountain*, both involve active movement that is static because of the qualifications of "A painting . . ." and "A drawing . . ." These responses should be coded *M^p* and *FM^p*, respectively.

It is important to make sure that the person has qualified the response rather than simply used a qualifying word as a manner of articulation. For instance, children often use the words *picture* or *painting* in their responses, referring to the blot rather than the answer itself. Differentiation between the static response and the articulation style is sometimes difficult. Typically, the latter will occur in several responses (It looks like a picture of a bat), but when in doubt, a clarifying question should be asked in the Inquiry.

Some examples of the three types of movement answers and the active-passive coding are shown in Table 7.3. Most include only the response but, for some, critical parts of the Inquiry are included in parentheses.

CHROMATIC COLOR DETERMINANTS

The coding symbols for chromatic color responses are the same as used by Rorschach, and the criteria for them are very similar to those that he prescribed. He observed that people frequently

are impressed with the chromatic colors, and use them as factors in forming their responses to the five blots that contain those features. He differentiated these answers into three categories: (1) those based exclusively on the color features (*C*), (2) those based primarily on the color features but also involving form (*CF*), and (3) those based primarily on form but also involving color (*FC*). He also used a separate coding (*CC*) in one of his example protocols to note an instance in which the colors were named.

Each of the systematizers incorporated Rorschach's scoring categories for chromatic color responses into their respective methods, but some altered the criteria for their application. Beck remained most faithful to the Rorschach criteria, and Klopfer and Rapaport deviated most from them. Each, except Beck, also proliferated the chromatic color scoring categories somewhat extensively. Special codings for "color projections," "color denial," "crude color," "color description," "color symbolism," "arbitrary color," and "forced color" are found in the various systems, and all, except Beck, also include color naming, although the criterion varies from system to system. There are no empirical findings to support the usefulness of the variety of proliferated categories for coding chromatic color answers, with the possible exceptions of color naming and color projection. The data concerning color projection suggest that it should be coded separately rather than as a determinant. Thus, the Comprehensive System includes four symbols for coding answers that include chromatic color, *C* (Pure Color), *CF* (Color-Form), *FC* (Form Color), and *Cn* (Color Naming).

The Pure Color Response (*C*)

The *C* coding is used for answers based exclusively on the chromatic features of the blot. It occurs least frequently of the three types of color responses, and is identified by the complete lack of form. The decision to code pure *C* is usually based on the fact that color alone has been specified, or implied, in the response with no attempt

Table 7.3 Examples of the Three Types of Movement Responses.

Card	Location	Response	Coding
I	D4	A wm stdng w her arms raised	Mp
I	W	Two witches dancing arnd some symbol	Ma
I	W	A bf gliding along	FMp
I	Dd24	A church bell ringing (Dd31 is clapper)	ma
I	W	A fallen leaf disintegrating (S: Ths little pieces out to the sides r prts fallg off)	mp
II	W	Two clowns dancing in a circus	Ma
II	D3	Menstruation	Mp
II	D6	Two dogs fighting	FMa
II	D4	An erect penis	Ma
II	DS5	A top spinning	ma
III	D1	Two people leaning over something	Mp
III	D1	Two people picking something up	Ma
III	D3	A bf flyg between two cliffs	FMa
III	D2	A bat hanging upside down, asleep	FMp
III	D2	Blood running down a wall	mP
IV	W	A man sitting on a stump	Mp
IV	W	A giant looming over you	Ma
IV	D1	A caterpillar crawling along	FMa
V	W	A bf floating along	FMp
V	W	Someone dressed up like a bunny doing a ballet dance	Ma
V	W	Two people resting against each other	Mp
VI	D3	An erect penis	Ma
VI	< D4	A ship passing silently in the night	mp
VI	Dd19	A speedboat racing up a river	ma
VII	D2	A little boy looking in the mirror	Mp
V	W	Two wm dancing	Ma
VIII	Dd	(Half of blot including D1) An animal climbing up something	FMa
VIII	D4	A frog leaping over something	FMa
VIII	D5	Two flags waving in the breeze	mp
IX	W	Intercourse (D9 male, remainder of blot female)	Ma
IX	> D1	A wm running after a child	Ma
V	W	An atomic explosion	ma
IX	DS8	A waterfall	mp
X	D1	A crab grabbing something (D12)	FMa
X	D2	A collie dog sitting down	FMp
X	Dd	(Upper D9 each side) Two boys talking to each other	Mp
X	V D10	Someone swinging in a swing (D5 is the person, D4 is the swing)	Ma
X	V D6	Two people reaching out to each other	Ma
X	W	Fireworks	ma
X	D7	A deer jumping	FMa
X	D3	A seed dropping to earth	mp
X	W	A lot of seaweed floating along	mp
X	D11	Two animals trying to climb a pole	FMa

to articulate form features. Among the more common examples of the pure *C* response are blood, paint, water, and ice cream. Any of these might be articulated in a manner that includes some form, such as *Blood running down*, or, *A scoop of ice cream*. When this occurs, the coding will be *CF* rather than *C*.

Sometimes, the Rorschach novice finds it difficult to identify the pure *C* response, being overly influenced by the fact that everything has some form. Although that fact is unrefutable, it is not an issue here. The issue is whether the person *processes and articulates* the use of the form in creating and selecting the response. The failure to do so signals some disregard and/or dysfunction in processing, mediating, or integrating the stimulus characteristics that are present. For instance, a drop of blood has a contour, but that contour can take an infinite number of shapes. If a person identifies a drop of blood, and adds no more, the cognitive operations have, in effect, discarded or disregarded the possible use of contours. Conversely, an individual might say, *An almost perfectly round drop of blood*, or, *A drop of blood that looks like it has splattered outward*. In each of these responses, the person has included some meaningful, albeit not necessarily definitive, use of contour in the response and the appropriate coding is *CF*. In some instances, the form use will not be injected until the Inquiry. Two similar responses serve as examples. Both are whole responses to Card X.

RESPONSE

Gee, a lot of paint

INQUIRY

E: (Rpts S's response)

S: Yeah, all over, lik somebody threw a lot of paint there

E: I'm not sure why it looks like paint

S: All those colors, that's like paint

In this response, the absence of form is implied in the response and confirmed immediately in the

Inquiry, and a code of *C* is appropriate. The second example is somewhat different even though the response is similar.

RESPONSE

Oh, a lot of paint

INQUIRY

E: (Rpts S's response)

S: Yes, all of it ll an abstract of some sort

E: An abstract?

S: Yes, it's the same on both sides as if to give each of the colors a double meaning, as if the painter was trying to convey s.t. by the design that he selected which is very pretty by the way

In this answer, the person injects the possibility of form use at the onset of the Inquiry, and confirms that after the examiner's question. In most instances of this type, the form use is implied in the response, such as *Oh, an abstract painting*, but this person did not do so. Assuming that no set has been offered by the examiner during the Inquiry that would produce a form orientation, this response would be coded *CF* rather than *C*.

When *C* is the *only* determinant for a response, the DQ coding will be *v*, denoting the absence of form demand. However, the pure *C* code may also be applicable for responses that do include some form object(s) for which the color is not used. For example, on Card III a person might say, *Two people in a vicious fight* (D1), *all this red* (D2 & D3) *looks like blood*. In such an answer, the determinant coding would be *M^a* (two people fighting), and *C* (blood), and the DQ coding would be +.

The Color-Form Response (CF)

The *CF* response is one in which the answer has been formulated primarily because of the color, but also includes form use. As illustrated above, some of these answers may involve objects that do not have a specific form demand, but form use is injected by the person giving the answer, such as *two scoops of raspberry sherbet* (Card VIII), or

orange flames shooting up from a forest fire (Card IX). However, the majority of *CF* answers will involve objects that do have some form demand.

It is usually easy to make the distinction between pure *C* and *CF* answers, but the distinction between *CF* and *FC* codings tends to pose a more frequent dilemma. This is because there is *no absolute rule* of thumb that can be applied easily to make this differentiation. Most *CF* responses can be identified because the emphasis on color is clearly evident. But that emphasis spans a considerable range. Consider the following illustrations, which include only the verbiage related to the coding for color:

RESPONSE

A pretty flower

INQUIRY

S: It's a beautiful orange with green leaves and this is the stem part

RESPONSE

It's a forest

INQUIRY

S: It's all different colored plants and trees

RESPONSE

A very exotic butterfly

INQUIRY

S: It's a beautiful red, unusual in its color, these are the wings

RESPONSE

Eggs fried in butter

INQUIRY

S: Theyr yellow, like fried in butter, c the yoke in the cntr

Each of these answers should be coded as *CF* because, in each, the color is emphasized and only modest form use has occurred. But, in each, the

color was not mentioned until the Inquiry. Actually, any or all could have developed into an *FC* answer, or even into pure *F* answers. Consider the possible variations shown next:

RESPONSE

A pretty flower

INQUIRY

S: Here's the stem, these r the leaves & this is the flower, it's in a pot

E: U said it is pretty?

S: Yeah, it's a pretty orange flower

RESPONSE

It's a forest

INQUIRY

S: U can c the shapes of some trees & bushes, & ths mite b a road running down the middl

RESPONSE

A very exotic butterfly

INQUIRY

S: It has unusual wings & a narrow body, I thk rare bf's r like tht, som r red like ths too

RESPONSE

Eggs fried in butter

INQUIRY

S: Thy hav an irregular shape, lik eggs do after u break thm & fry thm, & ths is the yoke

E: U said fried in butter

S: Well, thyr yellow, so I thot thy mite b fried in butter

Three of these answers (flower, butterfly, eggs) should be coded *FC* because color has been used, but the main emphasis is on form. The fourth (forest) is coded *F* because nothing but form is used and there is no key word or phrase that might cause the examiner to inquire further.

Examiners should avoid developing or adopting any hard-fast rule for distinguishing between *CF* and *FC* answers. For instance, Klopfer and Hertz, suggested differentiating *FC* from *CF* by using the form requirements of the content as a guide. Thus, all flowers, which have a relatively common form, would be *FC*, whereas all lakes, which have only ambiguous form requirements, would be *CF*. Although the intent of such a rule is worthwhile, the logic is not sound, and disregards the fact that all people do not become equally involved with color stimuli, even if they use the same content. Thus, the only rule for making the *CF-FC* distinction is that it must be made *on a response by response basis*, carefully weighing the verbiage of the person. Practically any response to a chromatically colored area might be pure *C*, *CF*, *FC*, or *F*, depending on what the person says.

For instance, consider the response to Card X, *It looks like flowers*, in the context of verbiage from four Inquiries:

- S1:** It's just a lot of different colors, pink & blue & yellow, like flowers are colored that way (code *C*).
- S2:** It's all very pretty with the different colors, like in a garden with different colored flowers laid out in a way to give the impression of a neatly planned arrangement (code *CF*).
- S3:** It's like a bouquet, with the long pink gladiolus, the little yellow daisy-like flowers with the short stems, & these blue ones cb mums the way thy r shaped lik pom-poms with elongated leaves next to them & some stems with brown leaves here. It's an attractive bouquet (code *FC*).
- S4:** Well, if u look down on a garden, u c all the different shapes of leaves and flowers like ths. I really don't kno much about flowers. (E: U said a garden?) **S4:** Well, I suppose so, I really can't think of anything else that might be laid out like this. (E: I'm not sur why thy mite b flowers) **S4:** Well, thyr all diff shapes like diff flowers (code *F*).

The Form-Color Response (*FC*)

The *FC* response represents the most controlled use of color. As noted in describing the *CF* response, *FC* is coded when the form features are given primary emphasis in the answer and the color is also used for purposes of elaboration or clarification. Typically, the emphasis on the form features will be obvious as illustrated in the three answers below:

RESPONSE

A butterfly

INQUIRY

E: (Rpts S's resp)

S: Yeah, a red one, thes r the wgs & the little body

RESPONSE

An anatomy chart

INQUIRY

E: (Rpts S's resp)

S: Well, the side ll the pink lungs, the rib cage is here (points) & I guess this prt is the lower organs, it's prob the stomach or intestines

E: The stomach or intestines?

S: Well, it's just a blob, I thk those organs are sort of in a blob lik ths

RESPONSE

Yellow daffodils

INQUIRY

E: (Rpts S's resp)

S: I thk daffodils have petals lik ths, c the stem here (points), & the flower prt. Most daffodils are yellow lik ths

Any of these answers could have been a *CF* response, especially the anatomy and daffodil answers. In fact, it is likely that the examiner inquiring about the anatomy chart asked about the "stomach or intestines" with some anticipation

that a more blatant use of color would be forthcoming. The fact that it did not is a good illustration of the importance of attending to the verbiage of the client when making *FC*–*CF* differentiations.

It is true that most *FC* responses concern objects that have specific form features, but that is not a rule or guideline in determining whether an answer is *FC*. The possibility that an answer should be coded *FC* should never be rejected simply because the object reported does not have a specific form requirement. Numerous contents with ambiguous form requirements, such as anatomy, foliage, sea animals, and even blood cells, can be articulated in a manner that emphasizes the form features while also including reference to color, and any might be appropriately coded as *FC*.

The Step-Down Principle

Where the distinction between *CF* and *FC* answers will, at times, seem knotty, the distinction between *C* and *CF* is usually less of a dilemma. The *C* answers are often blatant, such as, *This red, it's like blood, all red like that*, or *It's blue so it could be water*, or *Just a lot of different colored paint, that's all*, or *It's blue, like ice gets blue sometimes*. These illustrations are the obvious *C* responses, but sometimes an object that ordinarily would be scored as *C* must be coded as *CF* because it is touching a formed object.

For instance, *The red must be blood, it's on these bears that are probably fighting with each other*. Whereas red blood would typically be coded *C*, the coding is stepped down one interval to *CF* because of the direct proximity to an object with form. If the response had been, *Two bears that are fighting, maybe they are hurt because this red in the background is like blood*, the coding would remain *C* because the blood is not on the bears, even though it is associated with them.

Confirming Color Use

Either of two circumstances can occur that lead to a quandary about whether color has been used. First, many people will articulate color to denote

the location of an object, such as, *This red looks like a butterfly*, or *This blue is like a spider*. Neither of these statements warrants a decision to code for color as both simply identify location. Either or both might ultimately contain color, but, if that is true, the presence of color as a determinant would be revealed by other wording.

The second circumstance usually is more frustrating for the examiner. It occurs because an individual has reported an object in a colored area of the blot, and it seems almost certain that color has influenced the formation of the answer. But the person *has not reported* the color, either directly or through implication. A good illustration of this is, *This looks like a very beautiful flower*. In the Inquiry, the examiner bases the question on the key word, *You mentioned it is beautiful?* to which the person responds, *Yes, it looks very thin and very delicate*. Color is not coded for this response, even though the entire area used might be colored. The coding must reflect the verbalization of the client.

Direct Unequivocal Color Use

There are some responses in which the way that a person articulates a color makes it clear that the color is being used as a determinant. These are instances in which the color and content converge directly. For example:

That red looks like blood to me.
That orange looks like a forest fire.
The blue is the water.
The green is the leaf.

In these answers, the use of color seems unequivocal and should be scored. However, most color use is not so obvious, even in many responses in which the color and content appear to converge. For example:

That red could be blood.
The orange might be a fire or something.
This blue part might be water.
The green part is probably a forest.

In these responses, the person has not been definite. Instead, there is equivocation (*could be, might be, is probably*). Thus, the examiner should inquire further to test the color use by asking, *I'm not sure what makes it look like . . . or, What is there about it that makes it look like . . . ?*

The Color Naming Response (Cn)

Rorschach gave little attention to color naming other than to score it CC and to note that he observed it in the records of deteriorated epileptics. Piotrowski (1936) introduced the use of the symbol Cn for color naming in his studies of organics. He does not consider it to be a genuine color response but rather an acknowledgment of the presence of color. The limited research on color naming suggests that it can have diagnostic value. The criterion adopted for Cn in the Comprehensive System follows Klopfer and Rapaport. The chromatic colors in the figure are named (*That's red, or It's green and yellow and blue*) and the naming is intended as a response.

Examiners should not confuse occasional spontaneous comments, which some people give when presented with chromatically colored cards, with color naming. Comments such as "Oh, how pretty," or "My, look at all the colors," are *not* color naming. They can be interpretively important, but should not be considered the same as, or even similar to, the Cn answer. Most Cn responses are given with an almost mechanical or detached flavoring, manifesting the difficulties that the person has in integrating the complex stimulus material.

Some examples of the four types of chromatic color responses are provided in Table 7.4. The Inquiry material includes *only* that relevant to the coding decision, so that in some instances, the Inquiry is omitted and in other instances only a portion of the Inquiry is shown.

THE ACHROMATIC COLOR DETERMINANTS

Rorschach did not suggest a coding for the use of achromatic color as a determinant. The first

formal scoring for these kinds of responses was devised by Klopfer and Miale (1938), using the symbol C'. Klopfer's decision to create a separate scoring for the achromatic color response was, at least in part, based on Rorschach's apparent disregard of the determinant, plus the subsequent writing of Binder (1932), who proposed an elaborate system for evaluating "chiaroscuro" responses. Binder, like Rorschach, did not suggest a separate coding for the achromatic color responses, but did imply that they are interpretively different than responses using the light-dark features as "shading." Klopfer defined the C' response as one in which the black, gray, or white features of the blot are used as color. This code and criterion were adopted by Rapaport and variations of it are in the Piotrowski and Hertz methods.

Campo and de Santos (1971) reviewed the literature regarding approaches to coding responses based on the light-dark features of the blots and concluded that the C' answer is discrete from other categories. Similarly, research findings indicate that C' responses represent different operations than do shading responses, and as such, the coding provides useful interpretive information. The codes and basic criteria used by Klopfer to identify these responses have been incorporated into the Comprehensive System, and follow a form-related continuum similar to that used for the coding of the chromatic color answers.

The criterion requires that the use of the achromatic features of the blot, as color, *must be clear and unequivocal*. Fortunately, most achromatic color responses will include the words, "black," "white," or "grey," used in a manner that settles the issue quickly. For instance, *It's black*, like most bats, or *It's white* like snow, or *It must be a shadow* because it's all *grey*. In each of these answers, the use of achromatic color is quite clear.

Two other key words, often used to convey the use of achromatic color, are *light* and *dark*. Either may be used to denote color but, unfortunately, either may also be used to indicate the use of shading. For example, *It's all dark like at night*, indicates the use of the grey-black features as color, but, *It's all dark, like it is deeper here*, indicates

Table 7.4 Examples of the Four Types of Chromatic Color Responses.

Card	Location	Response	Inquiry	Coding
II	D3	This red ll blood	S: Its all reddish	C
II	D3	A red bf		FC
II	D2	A fire, like a bonfire	S: Well its all red like a bonfire sort of blazing upward	CF.ma
II	W	Two clowns, in a circus	S: I thought of a circus because of the red hats	FC
III	D2	Bad meat	S: The color makes it look spoiled to me	C
III	V D2	Blood running down a wall or s.t.	S: Its red & u can c it like its running down	CF.mP
VIII	W	A dead animal	S: It looks like the insides, all decayed E: Decayed? S: Yes all the different colors ll decay & u can c some bones	CF
VIII	D5	Two blue flags		FC
VIII	W	Pink and orange & blue		Cn
VIII	D2	An ice cream sundae	S: It ll orange & raspberry ice cream, like two scoops	CF
IX	W	A forest fire	S: Well the fire here (D3) is coming up over ths trees & stuff E: Trees & stuff? S: C, the green here cld b trees & ths other cld b bushes	ma.CF
IX	D4	A newborn baby	S: U can c the head, that's all, it must b newborn because its pinkish	FC
IX	V W	An atomic explosion	S: The top prt is the mushroom cld & dwn here the orange is the fire blast & the green area cld b smoke	ma.CF
X	V D4	A seahorse	S: It has that shape & its green	FC
X	D9	Coral	S: Its colored like coral	C
X	W	Some sort of really neat abstract	S: Well the artist has taken pains to make it the same on both sides the shapes are identical on each side & he's represented his different thoughts with different colors,	FC
X	W	An abstract painting of some kind	S: Really neat abstract thought I guess, its pretty good	CF
X	D13	A potato chip	S: Well it's kind of shaped like a potato chip & it has the same color as one	FC
X	D15	A flower	S: I don't kno what kind, it is a pretty yellow, there isn't much of a stem tho u can only c the flower part itself, like the petals and that	FC
X	D12	A leaf	S: Its green like a leaf	CF

the use of the shading to produce the impression of depth, which is coded as *vista*, and *It's lighter up here like at the top of a cloud*, indicates the use of *diffuse shading*. X-ray responses almost always involve either the use of achromatic color or diffuse shading features, but it is possible that they might be coded as *F*.

If the intent is not clear that the words *light* or *dark*, or the phrase, *the way the colors are*, pertain to achromatic color, the coding for diffuse shading should be entered. Caution must also be used about other key words that convey achromatic color, black, white, grey, because, sometimes, they simply denote location selection, as

in, *This white part looks like . . . or This dark area could be . . .* As in the case of chromatic color answers, the decision to code for achromatic color hinges on the rule that the intent of the person is clear and unequivocal.

The Pure Achromatic Color Response (*C'*)

The *C'* response is one based entirely on the achromatic features of the blot. It is very uncommon, and is identified by the absence of form. In some cases, the color will be used directly in the response, as in *white snow*, but in most cases, a formless content is offered in the response and the achromatic color is mentioned in the Inquiry. Two responses to Card V serve as good examples.

RESPONSE

It'll mud to me

INQUIRY

E: (Rpts S's resp)

S: Yeah, it's black

E: I'm not sure I c it as u do

S: All of it, it's black just like mud

RESPONSE

Some coal

INQUIRY

E: (Rpts S's resp)

S: It's dark

E: I'm not sure I c it as u do

S: It must b coal, it's dark like coal

In each of these responses, no effort has been made to develop the form characteristics and, in each, the achromatic color is offered spontaneously. If the second response had been *a piece of coal*, accompanied by some attempt at form differentiation, such as *jagged*, the coding would be *C'F*.

The Achromatic Color-Form

Response (*C'F*)

The *C'F* response is based primarily on the achromatic color features, and form is used secondarily as an elaboration. In almost all of these responses, it is clear that the answer would not have been formulated without the achromatic features of the blot being involved, and the form features often are vague or undifferentiated.

RESPONSE

A black sky with white clouds

INQUIRY

E: (Rpts S's resp)

S: It's all black & ths thgs r like white clouds

RESPONSE

Pieces of black coral

INQUIRY

E: (Rpts S's resp)

S: There r 4 of them, thyr black like pieces of coral, black coral, they mak jewelry out of it

In the first example, the differentiation, by content, of the blackness of the whole blot from the white spaces is a vague form use, sufficient to warrant scoring *C'F* rather than *C'*. In the second example, the differentiation of blot into "pieces" also justified the inclusion of *F* into the coding. Occasionally, people will perceive "smoke" because of the achromatic color and, depending on the extent of form use, the scoring will be *C'* or *C'F*. However, most "smoke" responses are perceived because of the shading rather than the achromatic color and the coding decision must be formulated carefully. It is quite common for people to use the word *color* to designate shading features rather than achromatic color.

The Form-Achromatic Color Response (*FC'*)

The *FC'* code is used when form is the primary determinant and achromatic color is used secondarily.

It is the most frequent of the achromatic color responses and is usually easy to identify because of the emphasis on form features. Among the more common FC' responses are *a black bat or bird* to Cards I and V; *Halloween figures in ghost costumes* to $DdS26$ of Card I (Inquiry: They are white); *African woman* to Card III (Inquiry: They are dark like African people); *A silhouette of a tree* on Card IV; and *grey ants or insects* to the $D8$ area of Card X.

THE SHADING DETERMINANTS

The coding of responses in which the light-dark features of the blot are used as a determinant has been one of the most controversial aspects of the Rorschach. Although discussed extensively, it has been the least researched of the determinant categories. It has been previously noted that Rorschach made no mention of shading or "chiaroscuro" features in his original monograph because the cards on which his basic experiment was based contained only modest variations in hue. These characteristics were exaggerated when the figures were printed and, according to Ellenberger (1954), Rorschach immediately perceived the possibilities created by the new dimension. Rorschach, during the brief period in which he worked with shaded cards, scored all references to shading as (C) to denote the *Hell-Dunkel* interpretations.

Binder (1932) was the first to systematically develop a more extensive scoring for the shading features, following some of the inferences that had been offered by Rorschach. The Binder approach differentiates four basic types of shading responses but suggests codings for only two of these. Those two are *Hell-Dunkel* (using the symbol Hd), which refers to answers based on "the diffuse total impression of the light and dark values of the whole card," and $F(Fb)$ in which shading is differentiated within the blot area. Binder also noted that people sometimes use the shading contours as form, or use the light-dark features as achromatic color. Because neither meet his criteria for Hd or $F(Fb)$, he offered no special codings for them.

Binder's work has been quite influential to the decisions of the systematizers in their respective approaches to shading answers. Piotrowski, in addition to coding for achromatic color, used two categories for shading responses. One, c or Fc , is for shading and/or texture responses prompted by the light shades of gray. The second, c' or Fc' is used where the dark nuances of the blot are involved, or when a dysphoric mood is expressed. Rapaport also included two categories for shading. The first, Ch , ChF , or FCh represents all shading responses except those falling into the second category. The second, coded $(C)F$ or $F(C)$, is for the chiaroscuro answer in which the shading components specify important inner details, or for Color-Form responses that include reference to texture.

Hertz includes three categories of shading responses, in addition to achromatic color. The first, c , cF , or Fc , is for responses in which the shading features produce a textural, surface, or reflective quality. The second, employs the symbols (C) , $(C)F$, and $F(C)$, is for answers where shading precipitates the interpretation of a three-dimensional effect. The third, Ch , ChF , or FCh , is used for all other shading responses. Beck also uses three categories for shading responses. One, T , TF , or FT , denotes answers in which the shading features create the impression of texture. The second, V , VF , or FV , is for responses in which shading contributes to the interpretation of depth or distance, and the third, Y , YF , or FY , is used for all other types of shading responses, and is also used when achromatic color is involved.

The Klopfer approach to shading is the most complex. Klopfer was actually the first, after Binder, to formulate multiple categories for the coding and interpretation of shading responses (Klopfer, 1937). In addition to coding achromatic color, Klopfer formulated four categories of shading. The first, c , cF , or Fc , is used for responses in which shading is interpreted to represent textural, surface, or reflective qualities. It is the same as used by Hertz and the criterion is nearly the same as used by Beck in his coding of T . The second utilizes the symbols K and KF for responses in which

the shading is perceived as diffuse. It is similar to Binder's *Hd*, the Rapaport and Hertz *Ch*, and the Beck *Y*. The third, *FK*, represents instances where shading is used for vista, linear perspective, reflections, and landscapes. Some components of this criterion are similar to the Hertz use of (*C*) and the Beck *V*. The fourth category, *k*, *kF*, or *Fk*, defined as a three-dimensional expanse projected on a two-dimensional plane.¹ This category applies mainly to X-ray or topographical map responses. Klopfer's approach is made more complex by a number of idiomatic rules for specific types of responses. The end product is that some responses are coded for shading even though the response does not meet the criterion for the category. The majority of these idiomatic rules involve the use of the *Fc*, although some call for the use of *FK*. For example, all transparencies are *Fc*, as are answers in which achromatic color is interpreted as bright color. Similarly, most responses that emphasize roundness are *Fc* rather than *FK*, and *Fc* is also used when the fine differentiations in shading are designated to specify parts of objects. The *FK* idioms include both vista and reflection responses even though shading is not mentioned.

The selection of symbols and criteria for the coding of shading responses in the Comprehensive System is based on several considerations. Although the Klopfer method is the most comprehensive, the coding idioms tend to violate the criteria and imply the feasibility of interpreting relatively different types of responses as the same. The empirical data available concerning shading responses are complex because it is difficult to translate findings derived by one method of coding to another coding approach. However, it is

clear that reflection answers are interpretively different from vista responses, and that percepts that include an emphasis on roundness are different from transparencies. Data have also been reported suggesting that the kind of shading perceived in X-ray responses is different than that used in topographical maps, the former being either achromatic color or diffuse shading, the latter involving the use of shading as vista. These factors argue in favor of an approach in which the criteria are distinct, avoids idiomatic scorings, and which neatly differentiates the various types of shading responses. Therefore, the approach selected for use in the Comprehensive System is essentially that of Beck (*T*, *V*, & *Y*), but the criteria for two of the three categories are more restricted than suggested by Beck. The Vista category includes only responses in which shading is present, and the Diffuse Shading category excludes achromatic color responses.

The decision to code for shading sometimes seems more difficult to the Rorschach novice than is really the case. This is because many people do not use the word *shading*. However, most examiners quickly learn that people commonly use the word *color* to denote contrast effects, as in, *The way the colors are here*, or *The different colors are like that*. In other instances, a person may say, *It's the way the lines go in there*, which sounds like form use but really is a reference to different levels of saturation. Once shading use has been identified, the differentiation about which type of shading is simply based on a process of elimination.

THE TEXTURE DETERMINANT

One of the three codes for texture (*FT*, *TF*, or *T*) is used when the shading features are interpreted to represent a *tactual* impression. In these answers, the person elaborates on the composition or texture of the object. The elaboration carries with it, explicitly or implicitly, the notion that the object has tactual features such as being soft, hard, smooth, rough, silky, grainy, furry, cold, hot, sticky, or greasy. Texture *should not* be assumed simply because such words are used. They are

¹ Klopfer remarked during a 1964 interview with me that he had been continuously dissatisfied with the various criteria for the scoring of shading responses in his system, especially the *k* category. However, he quickly added that he felt his own approach was superior to others developed, and expressed the belief that it would be unrealistic to attempt to change his system in that it had been in use for nearly 30 years by that time.

legitimate clues to the probability that shading is involved but this is not always the case. Thus, the Inquiry skill of the examiner is often important. It is not uncommon, for example, for a person to use words such as rough, shaggy, or furry as form elaborations, with no concern for shading features. Similarly, objects may be perceived as hot or cold because of color. In the optimal situation, the person will indicate the use of shading when giving the response, but this is the exception rather than the rule. In most cases, the response will contain some clue that texture may be included, such as using words like *shaggy*, *furry*, *hot*, and so on, or the nature of the object itself may raise the possibility as in a rug, a coat, some ice, or so on. These clues form the basis of Inquiry questions. Some people, especially children, will actually *rub* the blot but not necessarily articulate the shading. *This is sufficient evidence of the tactile impression to code texture.* The selection of which coding to use for texture depends on the extent of form involvement.

The Pure Texture Response (*T*)

The *T* response is the least common of the three kinds of texture. It is for answers in which the shading components of the blot are represented as textural, with no form involvement. The criterion for differentiating a *T* from a *TF* answer is essentially the same as for differentiating *C* from *CF*. In other words, no effort is made by the person to use the form features, or inject a form demand concerning the object reported. Responses such as wood, flesh, ice, fleece wool, grease, hair, and silk all represent examples that might be coded *T* provided shading is involved and has been perceived as texture, *and* no form is used. When form is used, or a form demand injected, even though relatively ambiguous, the coding should be *TF* rather than *T*.

The Texture-Form Response (*TF*)

The *TF* response is one in which the shading features are interpreted as texture and form is used

secondarily. In most instances, the object specified will have an ambiguous form such as a chunk of ice, an oily rag, a piece of fur, or some very hard metal. Less commonly, *TF* will be coded when a specific form is used but it is clear that the shading features precipitated the response. For example, *Something breaded, like a, well, like shrimp, yeah, that's it, fried shrimp* (Card VII). The coding of *TF* for objects of specific form must meet the requirement that the shading, perceived as texture, is primary in the response, and form has been used secondarily. Three very similar responses to Card VI provide examples of how form and texture may vary in importance.

RESPONSE

Gee, this is a funny one, I guess it cb a skin, lik spotted, an A skin

INQUIRY

E: (Rpts S's resp)

S: Well, yeah its all kinda fuzzy & ths here cld b legs

In this example, there is no indication in the response that form has been primary. Quite the contrary, the respondent is rather vague in the response, and uses the word *skin* first, and then clarifies it as an animal skin. To this point, there is no form demand. The first material in the Inquiry concerns shading (kinda fuzzy), and only after that is some reference to form injected. This response is coded *TF*. In a second example, the response is similar but the coding is different.

RESPONSE

It ll an A skin to me

INQUIRY

E: (Repts S's resp)

S: Well, the shading gives it a very furry appearance and the edging is very rough like an A skin wld b & there is the distinct impression of legs and & the haunch part too

The appropriate code for this response is *FT*, even though the shading is mentioned first in the Inquiry. The decision to code *FT* rather than *TF* is based on the fact that the response is reasonably definitive and could be form dominated, and the bulk of the spontaneously given Inquiry material is form oriented. The necessity of weighing the possibility of form domination in the response is demonstrated by a third example.

RESPONSE

Well, it cld b an A skin

INQUIRY

E: (Rpts S's resp)

S: Yes, its not very well done either, it ll the skinner didn't get as much of the frt prt as he could have

E: I'm not sure I'm seeg it lik u r

S: Well all of it except ths top prt looks that way, here r the rear legs & I suppose ths r the ft legs

This response involves no shading. The total emphasis is on the form features, and the coding must be *F*. The Rorschach skeptic may argue that, because most animal skin responses to Card VI often do involve the use of shading as texture, the coder would be justified in scoring *FT* even though it is not articulated. Empirical findings argue against this notion. Baughman (1959) obtained animal skin responses to cards presented in silhouette form and to those in which shading features had been eliminated. It has also been demonstrated (Exner, 1961) that the frequency of skin responses to Cards IV and VI is not altered if the gray-black features of the cards are made chromatic.

The Form-Texture Response (*FT*)

FT is used when form is the primary determinant and the shading features, articulated as tactual, are used secondarily. Most responses coded as *FT* will involve objects that have specific form requirements. For example, the commonly perceived

animals on Cards II and VIII are sometimes elaborated as furry because of the light-dark features. Similarly, the human-like figure, often reported to Card IV, is frequently perceived as being furry. However, there is a glaring exception to the guideline that *FT* will usually involve objects that have a specific form requirement. This is the animal skin response to Card VI, which is the most frequently given of all texture answers, and usually is coded *FT*.

This is illustrated by a comparison of the proportion of *ET*, *TF*, and *T* answers in a randomly selected sample of 250 adult nonpatient records and 850 records of adult nonschizophrenic patients. These 1,100 protocols contain 22,311 responses, of which 851 have a texture coding. The 851 include 364 responses (43%) to Card VI, of which 337 are the common animal skin responses and 318 of those are coded *FT*. The distribution of texture responses to Card IV is the second largest for this group, constituting 202 (24%) of the answers, of which 161 are *FT*, about equally divided between animal skin responses and human or human-like figures with fur or fur coats. Only 112 of the texture responses (13%) occurred to Cards I, II, III, and V, whereas 173 of these answers (20%) occurred to Cards VII, VIII, IX, and X. A total of 727 of the 851 texture responses (85%) are coded as *FT*, 107 (13%) are *TF*, and only 15 (2%) are pure *T*.

THE SHADING-DIMENSIONALITY DETERMINANT (VISTA)

The least common use of the light-dark features of the blot involves the interpretation of depth or dimensionality. These answers are marked by the use of the shading to alter the flat perspective of the blot stimulus as in, *It's down in*, *It's behind*, *It's rounded at the edges*, *It's higher than*, *It's folded over*, *It's an aerial view of . . .* and so on.

Usually, the presence of the depth or dimension impression is obvious, and the task of the examiner is to determine if it is based on the shading or if the impression is simply created because of the size or the contour features of the blot. When the latter occurs, the coding is *FD* and not *vista*. The

most troublesome differentiations concerning vista are those involving the possibility of texture. For instance, it is relatively easy to discriminate the rough mountain range (*vista*) from rough sandpaper (*texture*), but sometimes words like *bumpy*, *indented*, or *rough* can imply either vista or texture. For example, This looks like the brain, see the way the lines are there gives the impression of the convolutions, it looks *very bumpy*. This is a *vista* answer because the shading is used (*the way the lines are*) and there is no implication of tactile impression (it *looks* very bumpy). If the response had been, It looks like it would *feel* very bumpy if you touch it, texture would be coded instead of vista.

At times, the dimensional quality of a response is subtle and examiners should be alert to the necessity of asking a relevant Inquiry question. For instance, a response to Card IV might be, *A monster with his head between his legs*. This might convey dimensionality, either based on form or based on shading. In either event, the examiner must pursue the issue with a question such as, *You said his head is between his legs?* Three codings are used for vista responses.

The Pure Vista Response (V)

The pure *V* answer is extremely rare. The coding of *V* requires that the person report depth or dimensionality based exclusively on the shading characteristics of the blot, with no form involvement. These responses are somewhat dramatic because they ignore the form qualities of the stimulus. For instance, *It just looks deep* (Inquiry) *It's just all dark way down, I don't understand it*. A similar response usually will have some elaboration involving form, such as, *It looks deeper in the middle than on the sides*. When this occurs, the coding is *VF* rather than *V*.

The Vista-Form Response (VF)

VF is coded for answers in which the primary emphasis is on the shading features to represent

depth or dimensionality and use form features in only a casual or nondescript manner. Most *VF* responses involve contents that do not have specific form requirements, such as, *Up and down, like one of those maps* (Inquiry) *Like in a geography class with the darker mountains and the plateaus are lighter, or, Dark rain clouds* (Inquiry) *One is partly behind the other, see this lighter one is in front, or A deep canyon with a river running in there* (Inquiry) *The dark line is the river down in and the rest is the sides of the canyon*. If the form features are more specific or given greater emphasis, the appropriate coding is *FV*.

The Form-Vista Response (FV)

The *FV* code is, by far, the most commonly assigned for vista responses. The form is the primary feature in the answer and the shading is used in a more secondary manner to represent depth or dimensionality. Most *FV* responses will have contents with a relatively specific form requirement but that is not necessarily an adequate guideline for differentiating the *FV* and *VF* answers. For example, wells or cisterns have a reasonably specific form, yet most responses involving wells or cisterns are coded *VF* because of the way that individuals emphasize the shading rather than the form features.

The *FV* response will generally include considerable emphasis or elaboration on form. Almost any content, ranging from frequently perceived human or animal figures to very unusual answers, may involve vista. Bridges, dams, and waterways are among the more frequently given *FV* responses, but the vista component may be reported in almost any form-dominated response. For example, the human figure, often reported in the center of Card I, is sometimes perceived as *behind a curtain*, or, *wearing a dress you can see through*. When inquired cautiously, persons giving these sorts of answers invariably cite the differences in contrast as the source on which the notion of dimensionality is based. Thus, *FV* is the appropriate coding. Similarly, an *FV* answer is

Table 7.5 Examples of the Different Types of Texture and Vista Responses.

Card	Location	Response	Inquiry	Coding
I	W	A dried up leaf	S: Pts r missing & fallg off & its crinkly E: Crinkly?	FT
I	D4	A wm behind a curtain	S: It looks rough, the way the colors are there S: U can't c all of her, just the lowr prt of her body (D3) & ths is like a curtain u can c thru	FV
I	W	An old torn rag w oil spots	S: Its all black and oily looking to me	TF
II	D4	A circumcised penis	S: U can c the folds left thr in the cntr	FV
II	D1	A teddy bear	S: It has that shape & it has all that fur there (rubs)	FT
II	DS5	Somethg deep, lik a hole	S: U can c the round edges mayb there, like a bottomless pit. it gets drkr as it goes dwn & I don't c any bottom	VF
III	D1	Two gentlemen in velvet suits	E: U mentioned velvet suits S: Yes. it looks velvet to me, dark shiny velvet	FT
III	D3	A bow tie	S: It has a big bulging knot there in the middl of it, the drk lines r lik bulges	FV
IV	W	Hunters boot prop'd up against a post	S: The post is behind them u can tell bec it looks further away E: Further away? S: Well u c where they come together the color is different like the post was further back	FV
IV	W	An old bearskin	S: It looks like the fur is pretty well worn, smooth (rubs)	FT
IV	Dd30	A red hot spike	S: Its a lot lighter on the outside like very hot metal	FT
V	W	A person in a fur cape	S: U c mostly the cape, it looks like fur to me (rubs fingers on card)	FT
V	W	It looks sticky if u touched it	S: Ugh, it just ll a sticky mess	T
V	W	The rite half is lower than the left	S: Thers a deep crack rite dwn the cntr, c the drkr prt, & it ll the rite side is lower	V
V	W	A rabbits head behnd a rock of it.	S: Its here (D6),u can't c much just the outline, the drkr prt is the rock in frt	FV
VI	D1	An irrigation ditch	S: Its dwn in the cntr there, the shades help u to c how the diffnt amounts of watrg have effected the land @ it	FV
VI	D4	A chunk of ice	S: Its cold lookg like ice wld b, all diff colors of grey	TF
VI	W	Sk of skin, lik fur	S: Most of it ll the furry skin c the diff lines, & u can still c the head prt here (points)	TF
VI	V Dd	A deep gorge	S: Ths prt (D12) is the bttm & u can c the sides comg up to the top	VF
VII	> D2	A scotty dog	S: He has more fur on his chin & ft legs, where its drkr	FT
VII	W	Rocks	S: It just ll 4 rocks next to e.o., u can c that they r round, especially the bottom 2, thyr drkr at the bottom	VF
VII	Dd25	It ll a dam back in there	S: Well the dam is here, ths liter prt (Dd25/cntr) & the frt prt is like the waterfall part, or mayb a river comg ths way	FV
VII	V W	Hair, a lot of hair	S: It all looks hairy to me (rubs)	T
VIII	D5	An aerial view of a forest	S: Yeah, thes drkr prts wld be the bigger trees stckg up	VF
VIII	D2	Ice cream sherbet	S: It looks grainy like sherbet is grainy	TF

(continued)

Table 7.5 Continued.

Card	Location	Response	Inquiry	Coding
IX	D6	Cotton candy, its al fluffy	S: It has like rolls, like it was fluffy like cotton candy is fluffy	VF
IX	DS8	There's a plant inside a glass	S: U can just c the stem (D5) & it looks hazy like u were seeg it inside the glass or bowl	FV
X	DS8	Like u were lookg into a cave	S: It ll an opening & u can c or s.t. back into it, its drkr there, like the cave mouth	VF
X	D9	This pink part ll a map of a chain of mts	S: Its like a map that is used in schls or s.t. to show the way mts r formed, some r higher than others, the drkr areas	VF
X	D13	A piece of leather	S: Its rough, like it hasn't been tanned E: Rough? S: U c the different colors there, they make it ll tht	TF FV
X	D3	A maple seed	S: The pods r a drkr color, like they r thicker, round like	

sometimes reported in the lower center area of Card IV, *A worm or caterpillar, coming out from under a leaf*. Typically, persons giving this answer will note the contrast effect as the basis for impression of depth.

Some examples of different types of texture and vista responses are shown in Table 7.5. The Inquiry material included consists *only* of that which is directly relevant to the scoring decision; therefore, in some instances the Inquiry is omitted, and in other instances, a portion of the Inquiry is presented.

THE DIFFUSE SHADING DETERMINANT

Any shading response that is not texture or vista is coded as diffuse shading. This is when shading features are used in a nonspecific, more general manner than is the case in either vista or texture answers. It is this type of shading response with which Rorschach concerned himself in developing the scoring of (C). Diffuse shading may be used as primary to the formation of an answer, or secondary to provide greater specification to an answer that is based predominantly on form.

Most of these decisions to code diffuse shading are relatively straightforward although, as noted earlier, a person may use words such as *light*,

dark, *blackness*, and so on, in an equivocal manner, implying either achromatic color or diffuse shading. In those instances, the rule concerning achromatic color forces the decision. Namely, unless the examiner is convinced that the light or dark features are being used as achromatic color, the coding for diffuse shading should be assigned.

Sometimes people convey diffuse shading by mentioning a contrast in colors, as in, *The different pinks makes it look rotten*, or *It has different greys in it, like during a storm*, or *The way the coloring comes together gives the impression of dried blood*, or *The colors are mixed here, like in a finger painting*.

The Pure Shading Response (Y)

The scoring of Y is used for answers based exclusively on the light-dark features of the blot. No form is involved, and the content used typically has no form feature, as in mist, fog, darkness, and smoke. A response in which pure Y is the only determinant is quite rare.

The Shading-Form Response (YF)

The YF response is one in which the light-dark features of the blot are primary to the formation of

the response and form is used secondarily. The content of the *YF* answer ordinarily has an ambiguous or nonspecific form requirement as in clouds, shadows, nonspecific types of X-rays, and smoke associated with a specific form object such as, *smoke coming out of this fire*. The main factor that differentiates *YF* from pure *Y* is the intent of the individual to delineate form features, even though vague, in the response. Similarly, the *YF* response is usually differentiated from the *FY* answer by the lack of specificity or emphasis on form. Contents having a specific form requirement are rarely coded *YF*, occurring only in those cases where the shading features are clearly of primary importance to the formation of the response.

The Form-Shading Response (*FY*)

The *FY* code is used for responses in which form is primary to the formation of the answer, and shading is used as an elaboration. Shadows associated with specific content, X-rays of specific features, and elaborations about objects that have specific form requirements, such as a dirty face, are among the more commonly reported *FY* responses. Ordinarily, the *FY* response can be identified by the fact that the content could be given as a pure form answer, whereas this is not usually the case in the *YF* or pure *Y* answer. A notable exception is the "cloud" response that can be based purely on form. When shading is associated with the cloud answer, the code is usually *YF* but, in instances where form is emphasized as in, *It looks like a cloud building up with the flat top, like a cumulus cloud ready to rain, it's all dark*, the appropriate coding is *FY*.

It is important to emphasize that, at times, the shading features of the blots are used as contour. For example, the *D3* area of Card I is sometimes perceived as the lower part of a person and delineated by "these dark lines." Similarly, a dark spot may be sometimes identified as an eye. These are *not* shading responses per se, and should be coded as form answers. They may have interpretive importance because the person has chosen to

respond to the "internal" light-dark features of the blot that create contours, but they should not be confused with the shading answer.

Some examples of the various types of diffuse shading responses are provided in Table 7.6. The Inquiry material includes only that part related to the coding decision.

THE FORM DIMENSION RESPONSE (*FD*)

FD is coded for answers that involve impressions of depth, distance, or dimension that are *not* based on shading features. This coding category was developed out of research related to the formation of the Comprehensive System. There is no coding comparable to it in the other Rorschach systems, although both Beck and Klopfer have noted the existence of such answers. Klopfer idiomatically included such responses in the *FK* category, even though no shading is involved. Beck has been prone to score these answers *FV*, but only in instances where the unarticulated use of shading seems very probable. Beck specifically avoided the scoring of *FV* for perspective or dimensionality based on size discrimination.

Usually, size differentiation is the element that identifies the necessity to code *FD*, such as, *The feet are so much bigger than the head, he must be lying down*, or *It's so small, it must be way off in the distance*, or *It looks like it's in perspective, like I'm looking up at him*. Sometimes, the absence of some features of an object are translated by the individual to mean that depth or dimensionality exists, as in, *I can only see the leg and part of the arm, so it must be behind this*. . . . These answers are also scored *FD*.

Some *FD* answers can be much more subtle and examiners often have to work hard to determine if they really should be coded for dimension. For example, a response might be, *A person standing with a hood on*. The issue which must be inquired concerns whether the hood covers anything, such as the face or part of it, and if so, what gives that impression. In some instances, the hood will be a two dimensional feature, but in other responses a

Table 7.6 Examples of Diffuse Shading Responses.

Card	Location	Response	Inquiry	Coding
I	W	An x-ray of a pelvis	S: It's drk lik an xy & ll a pelvis	FY
I	< D8	A Xmas tree at night	S: Its dark like it wld b at night	FY
I	W	Ink	S: It's just all dark like ink is dark*	Y
II	D3	A very delicate bf	E: U mentioned that it is delicate S: You can c the differnt colors, their shades I guess, in the wgs	FY
II	D4	A church steeple	S: It looks like light is in the top, it's lighter there as if the sun was shining on it	FY
III	D7	Some sort of x-ray	S: It is different colors like an x-ray	YF
IV	W	Darkness	S: It just ll darkness to me, I can't tell u why	Y
IV	D3	A multicolored flower	S: It has different colors in it. like the petals r a different color fr the middle part	FY
V	W	A piece of rotten meat	S: Some of it is more rot'd than the rest E: More rotted? S: The colors r different	YF
VI	D2	A highly polishd bedpost	S: Its very shiny lookg	FY
VI	D4	It ll a sailing ship cruising in the nite	S: Its all darkish so it must be in in the nite	ma.FY
VII	W	It could b clouds I guess	S: Its pretty irregular like clouds would be & it has dark and lite color to it like clouds, mayb like cumulus clouds	FY
VII	W	Storm clouds	S: They'r dark like a storm cloud formation is dark	YF
VII	D1	A granite statue	S: Its dark like granite	FY
VIII	D1	An animal with dirt all over its face	S: This drkr part is the circle around the eye like dirt, ther's more there too, more dirt	FY
IX	V W	A lot of smoke and fire	S: The orange part is the fire & the rest is the smoke, u can see how the colors go together	CF,YF
X	D11	Some bones that r drying	S: It ll bones drying up, ths outr prt is lighter so it must be drier	YF

* Had the subject indicated that it is *black* like ink the scoring would be C'.

person will report that, *You can only see part of the face*. This is an *FD* answer. Some examples of *FD* responses are provided in Table 7.7.

PAIR AND REFLECTION RESPONSES

Two other determinant categories in the Comprehensive System, not found in any of the other Rorschach systems, relate to responses that contain pairs or reflections. Each represents a response in which the person has used the symmetry of the blot to specify two identical objects. The importance of these categories was identified in research that preceded the development of the Comprehensive System (Exner,

1969a). The coding symbol used for the pair response is the Arabic numeral 2. Because the pair answer occurs with considerable frequency, it was decided that the coding should be entered well to the right of other determinants, and after the coding for form quality. This avoids cluttering the determinant code and also makes the pair answers easy to tabulate. There is only one coding for the pair answer (2), whereas two (*Fr* and *rF*) are used for different types of reflection answers.

The Pair Response (2)

The symbol (2) is used whenever the symmetry features of the blot precipitate the report that two

Table 7.7 Examples of Form-Dimensional Responses.

Card	Location	Response	Inquiry	Coding
I	< D1	A tree off on a hill	S: Its a lot smaller so it must be far off	FD
II	D4 + DS5	Some sort of temple at the end of a lake	S: This (DS5) is the lake & here (D4) is the temple, u have to thk of it in perspective	FD
III	V Dd20	Two trees off on a hill with a path leading up to them	S: These (D4) r the trees & this (D11) is the path E: U said off on a hill S: It doesn't hav to b a hill, its just that they'r small & the path is pretty wide so they r off a ways	FD
IV	W	A person laying down	S: His feet r out in front, like toward me & his head is way bk there, like he was flat on his back	Mp.FD
V	D4	An animal jumpg behind a bush, u only c his leg	S: Well here is where the bush ends & ths is the leg so it has to be behind	FMa.FD
VI	W	A religious statue on a hilltop	S: Well its a lot smler so it wld b off in the distance like ths cld b a hill here if u stretch u'r immagin	FD
VII	Dd19	A city off in the distance	S: U can c the bldgs there E: U said off in the distn S: Its so small, it must b a long ways off	FD
VIII	D4	Two people stndg off on a hill	S: U can c the people here (Dd14) & this wld b the hill	Mp.FD
IX	< Dd16	A person stndg out on a ledge	S: Yeah, here's a ledge (most of D3) & there's this person way out there, leaning up against a tree or s.t., its quite far out there E: Quite far? S: He's so small, it's fairly hard to even see him	Mp.FD
X	V D6	Two men pushing s.t. out in front of them	S: Their bodies r shaped like they were bending forward & their arms r extended outward like they were pushing this thing in front of them	Ma.FD

of the perceived object are present. The pair is independent of form specificity in the answer. The pair coding (2) *is not* used when the object is interpreted as being reflected, because the reflection code already denotes that two of the objects are being seen. The articulation of pairs varies considerably among people. Pairs are often reported as, *There are two . . .*, but in many instances the word *two* is not included. Instead, a plural of the object may be used as in, *bears, dogs, people*, or a synonym for two may be employed, such as, *A couple of . . .*. Sometimes, a person will allude to only one object in the response, *This looks like a dog*, and then note that, *There is one on each side*, in the Inquiry. When this occurs, the pair should be coded.

In rare instances, an individual may report that a pair exists, *This looks like two people*, but later in the response, or in the Inquiry, will differentiate the two, *It looks like a man and a woman*. If the objects are differentiated in *any* way (this one is bigger, this one is fatter, this one is darker, etc.), the pair is not coded.

The Form-Reflection Response (Fr)

The coding of reflections includes the same requirement as the coding for pairs, that is, symmetry must be involved and the objects identical, but the person also reports the object as being reflected, or as a mirror image. *A pair is not recorded when the reflection determinant is coded.*

Fr is coded for responses in which the form of the blot is used to identify content that has specific form features, and which, in turn, is reported as reflected or a mirror image because of the symmetry of the blot. In many cases, movement is also associated with the reflection as in, *someone looking in a mirror, or, An animal stepping over some rocks, it's all reflected down here.*

The Reflection-Form Response (*rF*)

The *rF* coding is used for responses in which the symmetry features of the blot are primary in determining the answer, and form is used non-specifically, or ambiguously, as an object being reflected. For example, *All this is reflected in water, you see it here too.* The *rF* answer is uncommon, and always involves content with non-specific form requirements such as clouds, rocks, shadows, and rain. In some instances, a person may select a content that has no specific form requirement, but injects some form demand when describing the object(s). When this occurs, the coding should be *Fr* rather than *rF*. The most common example of this is when landscape is reported as reflected in a lake or pond. In almost all of these cases, some form demand concerning the landscape will be verbalized, making the appropriate coding *Fr*.

Some examples of pair and reflection responses are provided in Table 7.8.

THE BLEND RESPONSE (.)

The term *blend* signifies that more than one determinant has been used in forming the response. When this occurs, each determinant should be entered, separated from each other by a dot (.), as in *M.YF*, which indicates that the answer contained both human movement and a diffuse shading-form determinant. The frequency of blend responses varies considerably from record to record. A sample of 2,000 protocols, for example, shows that slightly more than 20% of the responses are blends, but the variance is considerable, with some records

yielding more than 50% blends and others containing no blend answers. Any combination of determinants is theoretically possible in a response, and each should be scored. The majority of blend answers contain two determinants, but in unusual instances three, four, or even five, separate determinants may occur.

There has been some disagreement among Rorschach systematizers concerning the appropriate method for coding and evaluating the blend answer. Most followed Rorschach's lead for the procedure. He simply coded multiple determinants together when they occurred, as in *MC* (1921). The protocols published by Rorschach contain relatively few blend responses, mainly because his basic work was accomplished using blots that contained few shading features. Klopfer (1942, 1954) deviated most from Rorschach's approach to the multiple determinant responses. He postulated that only one determinant can be primary to the formation of a response, and subdivided the "Main" or primary determinant, from other determinants, coded as "Additional," and weighted the interpretive importance of the Main determinants differently than Additional. This procedure is possibly one of the major limitations to the Klopfer system, and is compounded by the fact that a somewhat arbitrary "hierarchical" scheme is used to distinguish Main from Additional determinants in answers where the relative importance is not clear; *M* is given preference, with chromatic color, texture, and achromatic color ranked in that order of importance. Originally, Klopfer followed Rorschach's technique of entering multiple scores but, as his recommended technique of Inquiry became more elaborate, and as the number of determinant categories was proliferated, he perceived the fact that large numbers of multiple determinant scores would create much difficulty in interpretation. In addition, he became convinced that determinants relevant only to a part of a concept, or those given somewhat reluctantly in the Inquiry, were not as important to understanding the "basic" personality as the "primary" determinant. In 1938, he began

Table 7.8 Examples of Reflection and Pair Responses.

Card	Location	Response	Inquiry	Coding
I	< D2	A couple of donkeys, theres one on each side		<i>F(2)</i>
I	D1	Two little birds who r peeking their heads out of a nest		<i>FMp(2)</i>
II	< D6	A rabbit sliding on an ice pond, he's being reflected in the ice	S: Ths white is the ice & u can c his reflection in it	<i>FMa.Fr</i>
II	W	Two bears doing a circus act	S: They have red hats on like a circus act & they have their paws touchg	<i>FMa.FC(2)</i>
III	D1	Two people picking s.t. up		<i>Ma(2)</i>
III	D1	A person inspecting himself in the mirror	S: He's bending forward like he's looking at himself	<i>Mp.Fr</i>
IV	< W	If u turn it ths way it ll a reflection of s.t., mayb a cloud	S: Well all of ths on side is being reflected here, its like a cloud I guess E: I'm not sure how u c it as a cloud S: Well its all dark like a cld at nite. There's not much shape to it	<i>YF.rF</i>
IV	D6	A pair of boots		<i>F(2)</i>
V	W	Two people laying back to back		<i>Mp(2)</i>
VI	> W	All of ths is the same down here	S: I don't kno what it is, mayb rocks or s.t., it's the same on both sides like a reflection	<i>rF</i>
VI	< D1	It ll a submarine in the nite being reflected in the water	S: Its all black like nitetime, u can c the conning tower & the hull & here its all reflected	<i>FC'.Fr</i>
VII	D2	Ths ll a little girl, there's one on each side		<i>F(2)</i>
VII	D2	A little girl looking in the mirror		<i>Mp.Fr</i>
VIII	DS	A pair of flags		<i>F(2)</i>
VIII	< W	An A crossing over some rocks or s.t. like in a creek, u can c his reflection there, he's looking down at it		<i>FMa.Fr</i>
IX	< DS	Its like u r out in the water & u can c ths coastline off in the distance	S: Well, its being reflected in the water, c here is the waterline (points to midline), its all so small it must b way off in the dist. U really can't make much out, mayb some trees or smthg lik tht	<i>FD.rF</i>
IX	D3	Two halloween witches	S: They r colored like for halloween all orangish & theyr leaning back lik theyr laughing	<i>Ma.FC(2)</i>
X	D1	A couple of crabs	S: There's one on each side, they'r the same on both sides	<i>F(2)</i>
X	D7	Deer, like they'r jumping	S: One here & one here, they'r the same, w their legs outstretched lik they were jumpg	<i>FMa(2)</i>

scoring some of the "questionable" determinants as Additional and, subsequently, decided that it was impractical to expect all scorers to be consistent. By the time his first Rorschach text was published (1942), he had settled on the principle of giving only one score for the Main determinant.²

The other systematizers differ only slightly from each other, and from Rorschach, in coding multiple determinant answers. Beck (1937) introduced the use of the dot (.), as a convenient method of identifying and tabulating the blend response. In each of the systems, except Klopfer's, all determinants are given equal weight in forming interpretive postulates. The decision to include Beck's approach for coding blends in the Comprehensive System followed from three studies. The first was designed to investigate the relationship of blends and intelligence. Forty-three protocols were used, from nonpatients for whom Otis Intelligence Test scores were also available. The IQ scores ranged from 84 to 122, with a median of 103. The protocols were divided using an IQ median split, with the midranking protocol discarded, thus creating two groups of 21 each. The mean IQ for the upper half is 113.4, and for the lower half 93.7. The number of blend responses was tallied for each protocol and the data subjected to chi-square analysis. The results indicate that 17 of the 21 protocols in the upper half of the distribution contain at least one blend, whereas only eight of the 21 protocols in the lower half contain at least one blend. The number of blends in a given protocol does not correlate highly with IQ ($r=.32$), but the tendency to give a blend answer apparently does require at least average intellectual ability.

These findings prompted the second study using the protocols of 28 psychiatric outpatients for whom WAIS IQ scores were also available. Full Scale IQ's ranged from 97 to 132, with a median of 110. Using a median split, and tallying the number of blend answers for upper and lower half, the resulting chi-square was *not* significant. Twelve of the persons in the upper half gave blend answers, whereas 10 of the 14 protocols in the lower group contained blends. However, an interesting by-product of these two studies is the fact that the psychiatric group tended to give proportionally more blends per protocol than did the persons in the upper half of the nonpsychiatric group (31% versus 19%). This finding prompted the third study, using two protocols from each of 21 outpatients. The first was collected at the onset of intervention, and the second was taken at termination, which varied from nine to 17 months later. A comparison of the pre- and posttreatment protocols for total number of blends is *not* significant, although there is a tendency toward decrease. On the other hand, when the actual number of pre- and posttreatment records containing blend answers is compared, a significant difference is discovered. Twenty of the 21 pretreatment protocols contain blend responses as contrasted with 13 of the 21 posttreatment records. Possibly of even greater interest, the kinds of determinants used in the blend answers change substantially when the pre- and posttreatment records are compared. The former contain more shading blends, and more determinants in which form is secondary such as *CF* and *TF*. The latter yield fewer shading blends, more blends containing *FD* determinants, and more determinants in which form is primary. These data appear to indicate that the blend, although somewhat related to intellect, can be useful in providing information about the complexity of a person's psychological processes. This interpretation is consistent with Beck's hypothesis concerning the blend (1944, 1961), and argues for a method of coding multiple determinant answers that gives equal weight to each of the determinants involved.

²In a private interview in 1965 at Asilomar, California, Klopfer expressed some regret concerning that decision. He alluded to the fact that the interpreter, relying "too heavily" on the psychogram, could be misled in some instances. However, he maintained the belief that the Main-Additional dichotomy in determinant scoring did, in fact, preclude the interpreter from "overemphasizing" determinant scores that might be developed in the inquiry.

The coding symbols entered in the blend are the same as would be used if any of the determinants were scored separately. However, it should be noted that the coding of *F* (pure Form) in a blend is extremely rare. A review of nearly 15,000 protocols yields only 26 such responses. Almost all are in records of neurologically impaired or intellectually limited persons. They are responses in which two or more separate contents are identified, at least one of which is based exclusively on form, and which is not reported in relation to the other(s).

Answers containing an *F* in a blend appear most frequently to Card III, as in, *There are two people, and a butterfly, and they are picking something up*. The answer sounds like two responses, people picking something up as one, and the butterfly as the second. If the person does not distinguish them as separate answers in the Inquiry, or organize them meaningfully (it's flying between them), the examiner should ask, *Did you mean that all as one answer?* If the individual answers yes, and still fails to integrate the objects reported, the *F* should be included in the blend with the other determinant. In this example, the coding would be *Ma.F*. Any examiner deciding to code an *F* in a blend should review the response very carefully, because such responses are extremely rare.

Most, but not all, blends contain multiple objects, such as, *A woman standing there, there is black smoke all around her*, which would be coded *Mp.C'F*. In some instances, the complexity of the answer will not be revealed until the Inquiry is completed. For example, *Two butlers, bowing to each other* seems like a simple *Mp* response. However, consider the Inquiry: *S: These are their head & legs, it's like at a party, they have formal suits on*. Two key words have occurred which require questioning (*party* and *formal*). When the examiner inquires, *At a party?*, the response is: *There are some sort of red decorations in the background*, which denotes the likelihood of a pure *C* (red decorations), and the possibility of depth, (in the background). A second question, *In the*

background? yields: *Yeah, the red things, like the butlers are out in front of them*, confirming the *C* and the *FD*. When the examiner poses the final question, *You said they have formal suits on*, the response is, *Yeah, they are black, like a tuxedo*, injecting a fourth, achromatic color determinant. Therefore, the correct coding for this answer is: *Mp.C.FD.FC'*.

Examiners should be cautious about coding more than one shading determinant in a blend. Responses containing multiple shading determinants do occur, but very infrequently. When shading blends occur, they are identifiable by the fact that different verbiage is included for each of the determinants. For example, *This looks like muddy fields on each side of a deep gorge* might contain two types of shading, vista and diffuse. In the Inquiry to this response, the person says, *Well, the sides are all dark and blurry, like muddy fields, and the center part is the darkest, like it is deep down, like a gorge or something*. In this answer, a distinction has been made between the dark and blurry sides (*YF*), and the darkest, deep down middle (*VF*), justifying the coding of the blend *YF.VF*. The key to the decision about coding a shading blend is that each is decided by different wording. For instance, *This looks like a piece of material, something very fuzzy, that has been bunched together, like it was pleated, these lines here are the folds*, is confirmed to have two types of shading in the Inquiry, *It seems fuzzy because of the diff colors (TF) and the dark lines make it look like it's got folds in it, like pleats (VF)*.

INTERSCORER AGREEMENT

The percentage of correct agreement among coders in the two reliability studies completed for this work, for each of the Determinant codes, and by category, is shown in Table 7.9. As might be expected, the greatest percentage of disagreement occurs in coding the active-passive dimension of movement. Although nearly similar levels of disagreement occur for some other specific determinant codes, a review of the levels of correct

Table 7.9 Percentage of Coder Agreement for Two Reliability Studies.

Variable	20 Coders 25 Records Percentage Agreement	15 Coders 20 Records Percentage Agreement
<i>M</i>	96	96
<i>FM</i>	96	98
<i>m</i>	93	95
Movement coded	97	98
<i>a</i>	90	91
<i>p</i>	88	89
<i>C</i> or <i>Cn</i>	89	91
<i>CF</i>	90	92
<i>C</i> or <i>CF</i>	95	96
<i>FC</i>	97	96
Chromatic Color Coded	98	99
<i>C'</i>	98	97
<i>C'F</i>	91	90
<i>FC'</i>	94	96
Achromatic Color Coded	96	95
<i>T</i>	99	99
<i>TF</i>	96	94
<i>FT</i>	94	91
Texture Coded	97	97
<i>V</i>	—	99
<i>VF</i>	98	96
<i>FV</i>	97	95
Vista Coded	99	98
<i>Y</i>	89	90
<i>YF</i>	87	89
<i>FY</i>	94	92
Diffuse Shading Coded	95	97
<i>FD</i>	97	95
<i>rF</i>	92	94
<i>Fr</i>	93	93
(2)	98	99
<i>F</i>	90	91

agreement for total categories seems important. In other words, when the question is, was texture coded (regardless of whether it was coded *FT*, *TF*, or *T*), or was chromatic color coded (regardless if the coding was *FC*, *CF*, or *C*, etc.), the agreement levels are quite respectable. These data indicate that trained examiners, as were used in these studies, will generally apply the same coding to the same responses. Some will err, and some will disagree from time to time, but overall the levels of agreement fall well within acceptable limits for a task as complex as coding Rorschach determinants.

SUMMARY

The 24 symbols that are used for coding the nine determinant categories contribute much to the nucleus of the structural data of the Rorschach. None have exacting correlations with behavior or with personality characteristics, but collectively they are used to form a caricature of response styles and personality characteristics. There are still other features of the response that, when coded accurately, add considerably to the structural data. Four of these are described in the next chapter.

REFERENCES

- Baughman, E. E. (1959). An experimental analysis of the relationship between stimulus structure and behavior on the Rorschach. *Journal of Projective Techniques*, 23, 134-183.
- Beck, S. J. (1937). Introduction to the Rorschach method: A manual of personality study. *American Orthopsychiatric Association Monograph*, No. 1.
- Beck, S. J. (1944). *Rorschach's test: Basic processes*. New York: Grune & Stratton.
- Beck, S. J., Beck, A. G., Levitt, E. E., & Molish, H. B. (1961). *Rorschach's test. I: Basic processes* (3rd ed.). New York: Grune & Stratton.
- Binder, H. (1932). Die Helldunkeldeutungen im psychodiagnostischen experiment von Rorschach. *Schweizer Archiv für Neurologie und Psychiatrie*, 30, 1-67, 232-286.
- Campo, V., & de Santos, D. R. (1971). A critical review of the shading responses in the Rorschach I: Scoring problems. *Journal of Personality Assessment*, 35, 3-21.
- Ellenberger, H. (1954). The life and work of Hermann Rorschach. *Bulletin of the Menninger Clinic*, 18, 173-219.
- Exner, J. E. (1961). Achromatic color in Cards IV and VI of the Rorschach. *Journal of Projective Techniques*, 25, 38-40.
- Exner, J. E. (1969a). Rorschach responses as an index of narcissism. *Journal of Projective Techniques and Personality Assessment*, 33, 324-330.
- Exner, J. E. (1969b). *The Rorschach systems*. New York: Grune & Stratton.
- Exner, J. E. (1978). *The Rorschach: A Comprehensive System. Volume 2: Current research and advanced interpretation*. New York: Wiley.

- Hertz, M. R. (1942). *Frequency tables for scoring Rorschach responses*. Cleveland, OH: Western Reserve University Press.
- Hertz, M. R. (1951). *Frequency tables for scoring Rorschach responses* (3rd ed.). Cleveland, OH: Western Reserve University Press.
- Hertz, M. R. (1970). *Frequency tables for scoring Rorschach responses* (5th ed.). Cleveland, OH: Western Reserve University Press.
- Klopfer, B. (1937). The shading responses. *Rorschach Research Exchange*, 2, 76-79.
- Klopfer, B., Ainsworth, M., Klopfer, W., & Holt, R. (1954). *Developments in the Rorschach technique. I: Theory and technique*. Yonkers-on-Hudson, NY: World Books.
- Klopfer, B., & Kelley, D. (1942). *The Rorschach technique*. Yonkers-on-Hudson, NY: World Books.
- Klopfer, B., & Miale, F. (1938). An illustration of the technique of the Rorschach: The case of Anne T. *Rorschach Research Exchange*, 2, 126-152.
- Klopfer, B., & Sender, S. (1936). A system of refined scoring symbols. *Rorschach Research Exchange*, 1, 19-22.
- Piotrowski, Z. (1936). On the Rorschach method and its application in organic disturbances of the central nervous system. *Rorschach Research Exchange*, 1, 148-157.
- Piotrowski, Z. (1947). A Rorschach compendium. *Psychiatric Quarterly*, 21, 79-101.
- Piotrowski, Z. (1957). *Perceptanalysis*. New York: Macmillan.
- Piotrowski, Z. (1960). The movement score. In M. Rickers-Ovsiankina (Ed.), *Rorschach psychology*. New York: Wiley.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Diagnostic psychological testing* (Vol. 2). Chicago: Yearbook Publishers.
- Rorschach, H. (1921). *Psychodiagnostik*. Bern, Switzerland: Bircher.
- Rorschach, H., & Oberholzer, E. (1923). The application of the form interpretation test. *Zeitschrift für die Gesamte Neurologie und Psychiatrie*, 82, 240-274.

CHAPTER 8

Form Quality, Content, Popularity, and Organizational Activity

Once the codings for *Location*, *Developmental Quality*, and the *Determinant(s)* have been established, four additional categories must be addressed. The first requires a decision about the *Form Quality* of the response. This concerns the fitness or appropriateness of the blot features to the object reported. The second requires the selection of a code(s) to represent the *Content(s)* of the answer. The third is to check if the answer is a *Popular* response, that is, among those given with a substantial frequency. The fourth is to determine if the answer warrants a score for *Organizational Activity*. This is when a synthesis has occurred among the features of the blot. These are routine steps, somewhat similar to the decisions about *Location* and *Developmental Quality*, although, at times, the coding for *Form Quality* will require careful thought.

FORM QUALITY

An entry for Form Quality (*FQ*) is an important feature in the coding of most Rorschach responses. It is required any time that form has been used in the response. A coding for *FQ* is *not* entered when the only determinant(s) for the answer indicate that form has not been used in the response, such as *C*, *C'*, *T*, *V*, or *Y*. It is also possible for formless *M* answers to occur, such as, *This looks like sadness, it's just black like sadness*, which would be coded *Mp.C'*, with no *FQ* entry.

The *FQ* coding provides information about the "fit" of the response, that is, does the area of the

blot being used conform to the form requirements of the object specified? The issue of "goodness of fit" was a major point of contention among the systematizers who developed the test. Each agreed that *FQ* is one of the most important of the quantifiable elements of the test, and they generally agreed that responses can be differentiated into two basic categories, those in which form is used appropriately (good form) and those in which it is not (poor form). This is consistent with Rorschach's recommendation.

However, beyond these two basic points of agreement, the systematizers differ about the best method to evaluate the appropriateness of the form used in the response. Beck, Beck, Levitt, and Molish (1961) and Hertz (1970) followed Rorschach's suggestions most closely. They, like Rorschach, used the symbol + for good form answers, and the symbol – for poor form answers, the assignment of either being essentially based on the statistical frequency with which any given type of response occurs to specific location areas.¹

Both Beck and Hertz published elaborate tables, by card and location areas, to define which responses are + and which are –. The two differ in that they do not always use the same location areas, but Hertz has reported a relatively high

¹Kinder, Brubaker, Ingram, and Reading (1982) have traced the development of Beck's decisions concerning the assignment of the + and – symbols, and suggest that many of Beck's decisions were more subjectively based than may have been implied in Beck's description of his work.

agreement between her table and that of Beck. Piotrowski (1957) and Rapaport endorse the concept of using statistical frequencies to determine the adequacy of form fit, but neither developed frequency distributions for this purpose. In Klopfer's early work, he also used the symbols + and -, but he was generally opposed to statistical frequency as a determining criterion. Rather, he preferred to rely on the subjective evaluation of the examiner. Ultimately, he discarded the plus-minus codes in favor of a complex *Form Level Rating* (Klopfer & Davidson, 1944).

In developing the Comprehensive System, it was decided that decisions concerning form quality should be based on an empirical approach to ensure intercoder reliability, and to maintain a consistency in evaluating form fit that could be subject to a variety of validation studies. A method based on statistical frequency, such as that of Beck and Hertz, seems the best approach to achieve this goal. However, statistical frequency methods are limited by the fact that all + responses are not of equal quality. Similarly, not all - answers are equally poor in form fit. Rapaport (1946) noted this in his work, and suggested that form quality might be differentiated into more categories. He argued that such a differentiation of form quality would provide a clearer understanding of "reality testing" operations.

Mayman (1966, 1970), following Rapaport's suggestions, developed a method of evaluating form quality that has six categories, ranging from exceptionally good form to exceptionally poor form. The categories and criterion for each are as follows:

F+ (highest level): Representing a successful combination of imagination and reality congruence.

Fo (ordinary level): Representing the obvious, easily noticed answers, requiring little or no creative effort. This category includes almost all responses that would be considered commonplace.

Fw (weak level): Representing a significant shift away from the reality adherence characteristic of the *F+* or *Fo* answers. Some *Fw* answers border on the adequate and are coded *Fw+* when the general contours do not clash with the answer, whereas other *Fw* answers are less than adequate and coded *Fw-* when some of the blot area used makes the form fit somewhat incongruous.

Fv (vague level): Representing answers in which the content avoids the necessity of specific shape.

Fs (spoiled level): Representing an essentially adequate use of form that has been spoiled by an oversight or distortion.

F- (minus level): Representing the wholly arbitrary percept where there is substantial disregard for the structural properties of the blot areas used.

Mayman demonstrated that this method of differentiation yields data of substantially greater diagnostic usefulness than does the simple plus and minus differentiation. He reports very respectable correlations with ratings of health, tolerance for anxiety, motivation, ego strength, and quality of interpersonal relations. At first glance, it appeared that the Mayman method for evaluating *FQ* might be appropriate for the Comprehensive System, especially if integrated with a format based on statistical frequency.

A pilot study, using four coders trained in the Mayman method, was conducted concerning its usefulness. Each independently coded 20 protocols only for form quality. They also used the Beck tables of Good and Poor Form as a guideline. The results—levels of correct agreement among the four coders ranging from 41% to 83% were disappointing. An analysis of the discrepancies rendered some insight into the reliability problem. There was considerable disagreement in the scoring of responses as *Fw+* or *Fw-*. There was substantial disagreement in the use of the *Fv* category, partly because some of the responses

that might be scored *Fv* in the Mayman scheme are listed as + by Beck, whereas others are listed – by Beck, and partly because the levels of articulation varied considerably in these types of responses. There was also considerable disagreement for the scoring of *Fs* versus *F–*.

These findings prompted an investigation of a modification of the Mayman method, in which *Fv* and *Fs* were eliminated, and all *Fw* answers were to be considered as a single score rather than attempt to differentiate *Fw+* and *Fw–*. The same four coders independently scored a second set of 20 protocols, using this modified format, and the results—percentage of correct agreement ranging from 87% to 95%—were quite encouraging.

Subsequently, it was decided to select a variation of Mayman's method of *FQ* evaluation which utilizes the frequency distribution method favored by Beck and Hertz, but which *also* permits some differentiation regarding the detailed use of the form, and accounts for responses in which form is used appropriately in responses that appear with a low frequency. The resulting four categories and the criterion for each are shown in Table 8.1.

The *FQ* coding is entered at the end of the determinant coding. For instance, responses based exclusively on form will be coded as *F+*, *Fo*, *Fu*, or *F–*. Similarly, when determinants other than pure Form are present in the answer, the placement of the *FQ* coding remains the same, as in *Mao*, *FTu*, *FC.FD–*, *FMP.FC'+*, etc.

The decision concerning which symbol to employ will begin with an examination of Table A, which is included in the Appendix. It provides a listing of responses, card by card, and by location areas. Table A has been revised several times. The most recent version was created using 9,500 protocols that include 205,701 responses. These include the records of nonpatient adults (51,183 responses), nonschizophrenic outpatients (92,951 responses), and nonschizophrenic inpatients (61,567 responses). The result is a listing of 5,018 items, or classes of items, each of which is identified as *ordinary* (o), *unusual* (u), or *minus* (–).

If the item, or class of items, is designated in Table A as *ordinary* (o), and involves a *W* or *D* area, this signifies that the object was reported in at least 2% (190 or more) of the 9,500 records, and involves blot contours that do exist and are

Table 8.1 Symbols and Criteria for Coding Form Quality.

Symbol	Definition	Criterion
+	Ordinary-elaborated	The unusually detailed articulation of <i>form</i> in responses that otherwise would be scored ordinary. It is done in a manner that tends to enrich the quality of the response without sacrificing the appropriateness of the form use. The + answer is not necessarily original or creative but, rather, it stands out by the manner in which form details are used and specified.
o	Ordinary	The common response in which general form features are easily articulated to identify an object. These are easy to see answers that have been reported by at least 2% of persons in the Form Quality data pool for <i>W</i> and <i>D</i> areas, or by at least 50 persons in the pool who responded to <i>Dd</i> areas. There is no unusual enrichment of the answer by elaboration of the form features.
u	Unusual	A low frequency response in which the basic contours involved are appropriate for the response. These are uncommon answers that are seen quickly and easily by the observer.
–	Minus	The distorted, arbitrary, unrealistic use of form in creating a response. The answer is imposed on the blot structure with total, or near total disregard for the contours of the area used. Often substantial arbitrary lines or contours will be created where none exist.

reasonably consistent with the form of the reported object. There are 865 items or item classes designated as o for *W* or *D* locations.

If the item listed as o involves a *Dd* location, this signifies that the area was used by at least 50 people, that the object was reported by no fewer than two-thirds of those using the area, and involves blot contours that do exist. Table A includes 146 items classified as o for the *Dd* locations.

Differentiating Ordinary and Plus Responses

If the object reported in a response matches an item or item class that is listed as *ordinary* in Table A, the coding for form quality must always be either o or +. Most of these responses will be coded o as the frequency of + responses is quite low in all groups. Nonetheless, examiners should not be casual and neglect possible + answers. Responses that should be coded + are usually easy to distinguish. This is because the person describes more *form* details when describing the object(s) than do most people who give a similar answer. The + answers usually stand out because of the attention to form characteristics.

For example, when most people give a human figure response, they note the head, body, and legs. The *elaborated* description will also include three or four other features, such as noting some facial characteristics, mentioning the arms, waistline, and often describing the feet or shoes. Similarly, when most people describe an animal, they include mention of the head and body, and sometimes the legs. The *elaborated* description includes two or three additional features, such as the nose, ears, tail, feet, and so on.

The decision to code + versus o does include some subjective judgment of the coder, but this usually develops easily with experience. Most protocols given by well-educated persons will contain one or two + answers, but + answers also appear in the records of less well-educated persons, and examiners should always be alert for this

possibility. Examiners should not confuse lengthy and/or creative answers with the legitimate + answer. *Plus* responses simply contain *more* form articulation than is customary. They may also be lengthy and/or creative, but those features are not essential.

Coding Unusual Responses

The requirement concerning form use is no different for *unusual* responses than for those coded as *ordinary*. The answer should be appropriate for the contours used, and it should be perceived easily by the examiner. The differentiation between o and u answers is based simply on whether the response has occurred in at least 2% of the 9,500 records from which Table A was created. If an item in Table A is designated as unusual (u), and involves a *W* or *D* area, this indicates that it appeared in fewer than the 2% criterion used to designate o answers but, in the unanimous opinion of at least three judges working independently of each other, the object is seen *quickly and easily* and is appropriate to the contours that are used. Table A includes 1,611 such items.

If an item is designated as u in Table A for a *Dd* area, this signifies that it was reported by fewer than 50 people but, in the unanimous opinion of at least three judges working independently of each other, it is seen *quickly and easily* and is appropriate to the contours that are involved. Table A includes 565 items designated as u for *Dd* locations.

FQ Coding by Extrapolation

Although Table A includes a large number of items identified as *ordinary* or *unusual*, it does not include all possible responses in those categories. In many instances, if a response does not appear in Table A it will probably be coded as *unusual* or *minus*. However, the examiner should make an effort at *conservative extrapolation* from items existing in Table A before reaching a decision about FQ because, for some answers, extrapolation will

lead to the coding of *o* for an object not listed in Table A. Extrapolation requires a careful search of answers given in the table for those that are very similar to one reported.

For instance, a *gyroscope* is not listed for the *DSS* area of Card II, but a review of that listing indicates that a *top* is listed as *o*. A gyroscope is a form of *top*. Therefore, it is not unrealistic to also code a gyroscope as *o*. Similarly, there is no location number for Card V if the external *D10* areas are excluded, but sometimes people will exclude those areas when giving the bat, butterfly, or bird responses. In such instances it is appropriate to extrapolate from the listing for *W* responses and assign the coding of *o* because the excluded area is very minor.

Extrapolation involves a search for like shapes. If the object in a response is as bad as some of the *minus* answers listed in Table A, it should be scored as a *minus*. Similarly, if the object in a response is similar to some of the answers listed in Table A as *unusual* it should be scored as *u*. Extrapolations are judgment calls, and it is important to avoid overgeneralization. Examiners should be logically conservative. At times, reported objects will have only a remote similarity to items listed in Table A. When that is the case, it is best to abandon the notion of extrapolation and apply the rules for *unusual* versus *minus* in making the Form Quality decision.

Coding Minus Responses

The listing of *minus* answers in Table A is limited. It includes 1,395 *minus* items for *W* and *D* areas, and 436 *minus* items for *Dd* locations. Those listed as *minus* have been included because they have occurred at least four times among the 9,500 protocols in the sample. A huge number of *minus* answers have not been included in Table A to avoid making the Table unwieldy. As noted earlier, when an item is not included in Table A, a judgment call is required, and the majority of these answers will be coded as either *unusual* or *minus*, depending on whether the blot contours

have been used appropriately. When attempts at extrapolation are not successful, the criterion for distinguishing *unusual* from *minus* answers should be applied carefully and faithfully. In other words, if the response can be seen *quickly and easily*, and does not violate the blot contours significantly, it should be coded *unusual*. Otherwise, it should be coded *minus*.

It is important to note that the blot areas used for the majority of *minus* answers *do have* some contours that are congruent with the object reported. However, the overall "fit" of the object(s) tends to violate the contours considerably. Typically, these are not responses that can be seen quickly and easily. Many *minus* responses require the person to *create* contours that do not exist. Whenever those *nonexistent* contours are critical in defining the object, the response will always be coded as *minus*. Also, as a rule of thumb, it is best to code questionable responses as *minus*. Some examiners are loathe to code a response *minus*, apparently influenced by the faulty impression that a *minus* answer will have great interpretive significance. This is not true! The majority of people, from all groups, give one or more *minus* responses.

It is also important to note that items that are listed as *minus* in Table A are not necessarily low-frequency answers for all groups. For instance, the response of a face, using all of Card X inverted, is relatively commonplace among some groups of adolescents, both patients and nonpatients. It is a curious phenomenon that is not well understood, but which apparently occurs because those subjects tend to perceptually close the broken figure. Nonetheless, it is properly coded as *minus* because the person must create contours that do not exist in the blot.

Multiple Object Responses

Some responses will contain multiple objects that do not all have the same Form Quality. Sometimes, the less favorable *FQ* coding is assigned for the entire response, + and *o* being more favorable

than *unusual*, and *unusual* more favorable than *minus*. This is done when an object with a less favorable *FQ* is clearly important to the overall response. If an object that is not very important to the overall response has a listed *FQ* that is less favorable than the other objects in the answer, the more favorable form quality is assigned.

This issue occurs most often on Card X when a whole response is given that includes several insects or underwater creatures, most of which are listed as *ordinary* or *unusual*, but includes one that may be listed as *minus*. Assuming the one listed as *minus* is not critical to the overall answer, the correct coding should be *ordinary*. This is because Table A includes "Animals, marine," and "Insects" as *o*, provided that any specified meet appropriate contour requirements. In other words, most of the objects in the answer are identified in a manner that uses form appropriately. However, the coding would be *minus* if one of the insects or underwater creatures is critical to the answer, such as *These are bugs and insects trying to feed* (Inquiry), *These (D8) look like ants, these (D4) look like caterpillars, these (D1) look like spiders, but these big bugs (D9) are pushing them out of the way*. Ant, caterpillar, and spider are all listed as *o*, but bug is listed as *-*, and in this answer, the bugs are very important to the total response.

Similarly, people responding to Card III often report *Two people doing something*, and use the entire *D1* area. The Table A listing for *D1* includes, "Humans, 2, with *D7* as a separate object" as *o*. This is because the vast majority of responses to *D1* involving two people will include *D7* in a casual way and not grossly distort the use of the form characteristics of that area. The "something" in such an answer might be *dancing around a drum*, or *bending over a table*, or *picking some mushrooms*. Drum, table, and mushrooms are all listed as *u* in Table A and, if any were reported as separate answers, *u* would be the required *FQ* code. However, in this answer, the people are the central figures and the coding of *o* is appropriate. If the "something" had been, *bending over pulling on some lungs (D7) down here*, the response would be

coded *minus* because *D7*, as lungs, which are important in this answer because they are the focal point of the activity, is listed in Table A as *minus*.

The coder must use good judgment about the separate object(s). Another example involves a response to Card II, *Two dogs (D1) in a circus doing an act, the red gives a circus atmosphere and they seem to be balancing something on their noses (D4), probably a ball*. *D1* as dogs is *o*, but *D4* as a ball is not listed in Table A, and it really doesn't look much like a ball. Should the response be coded as *o*, *u*, or even *-*? The logic conveyed by the person in giving the response may help with the final decision. The most important elements seem to be the dogs and the circus atmosphere. To this point the scoring is *o*. How important now is the ball? Probably not very much. The person has said that they are doing an act . . . balancing something. It is logical that the "something" might be a ball. Thus, even though *D4* doesn't look much like a ball, the logic is consistent and the form distortion is not very serious. Therefore, the coding of *o* is more appropriate than a coding of either *u* or *-*.

Intercoder Agreement

The two studies regarding interscorer reliability indicate that considerable correct agreement does occur when Table A is used as a guideline for coding form quality. For the group of 20 coders and 25 records the percentages of agreement are: *+* = 93%, *o* = 97%, *u* = 94%, and *-* = 94%. For the group of 15 coders and 20 records, the percentages of agreement are: *+* = 96%, *o* = 97%, *u* = 95%, and *-* = 93%.

CONTENT

All responses are coded for content. The coding used for the content should be reasonably representative of the object or class of objects reported in the response. Rorschach (1921) used only six different symbols for content scoring. They are *H* (Human), *Hd* (Human Detail), *A* (Animal), *Ad* (Animal Detail), *Ls* (Landscape),

and *Obj* (Inanimate Objects). In the early development of the test, it became obvious that these six categories do not provide adequate differentiation of many frequently reported classes of objects. Therefore, each of the systematizers expanded Rorschach's original listing considerably to provide for a greater discrimination. There is considerable agreement among the systems concerning the more commonly appearing contents, but the agreement is far from unanimous. The listings vary considerably in length. Beck uses the longest (35 categories), and Klopfer and Davidson (1962) the shortest (23 content categories). Slight variations also occur across the listings regarding the actual symbol to be used.

The list of content symbols used in the Comprehensive System was developed by using more than 13,000 responses. Each was coded for content using the Beck listing of categories, because it is the longest of any of the systems. Frequencies were tallied for each of the 35 content categories, and any category that did not show a frequency of 20 or more was deleted from the list. This procedure reduced the length of the Beck listing from 35 to 19 content categories.² The rationale for this is that any content occurring with very limited frequency is probably quite "idiographic" when it does occur, and may best be represented in a summary of codes in written-out form.

Next, the 19 remaining content categories were reviewed to determine if any one category might include two or more frequently occurring, but relatively different, classes of objects. Two such categories were discovered. The scoring of Anatomy (*An*) included 179 responses of anatomy and 97 X-ray responses. Although Beck coded both under the single rubric of *An*, it was decided to create a separate scoring for X-ray. Similarly, Beck's coding of Fire (*Fi*), assigned to 317 answers,

includes two relatively separate kinds of answer. One is explosion, which appears in 248 answers, but only about half of which include a reference to fire, and fire, which appears in 69 responses that have no reference to explosion. These findings prompted a separate content category for explosion answers. In addition, about 25% of the human responses, and more than 10% of the animal responses were of fictional and mythological humans or animals, such as witches, giants, monsters, unicorns, and devils. Thus, it seemed logical, following the approaches of Klopfer, Piotrowski, and Rapaport, to add four categories, (*H*), (*Hd*), (*A*), and (*Ad*) to account for these types of contents. Finally, a new category, *Hx*, was added to account for responses involving human emotions and sensory experiences.

The listing used in the Comprehensive System is comprised of 26 categories. These categories and the symbol and criterion for each are shown in Table 8.2.

Coding Multiple Contents

Many responses will contain more than one content. *All* should be included in the coding with *two exceptions* that concern the categories Nature, Botany, and Landscape. *Na* always takes priority over *Bt* or *Ls*. If a response includes *Na* and *Bt* and/or *Ls*, only *Na* is coded. For example, *This is an animal stepping on some stones that are in the water, he's trying to get to this bush*. This answer contains four contents, animal *A*, stones *Ls*, water *Na*, and bush *Bt*, but the correct content coding is *A, Na*. If a response does not include *Na*, but contains both *Bt* and *Ls*, only one of the two is coded. The reason for the rule concerning Nature, Botany, and Landscape is that all are included in the calculation of the *Isolation Index*, and the rule is designed to ensure that no single answer will contribute excessively to that calculation.

When multiple contents are entered, they are separated by a comma, with the first representing the content that is *most* central to the response. Usually, but not always, the main content will be the first item mentioned in the response. For instance, the response, *A painting of a person*

²The 16 Beck Content scorings eliminated by this procedure are *Ab* (Abstract), *Al* (Alphabet), *Aq* (Antiquity), *Ar* (Architecture), *As* (Astronomy), *Dh* (Death), *Im* (Implement), *Mn* (Mineral), *Mu* (Music), *My* (Mythology), *Pr* (Personal), *Rc* (Recreation), *Rl* (Religion), *Ru* (Rural), *Tr* (Travel), and *Vo* (Vocational).

Table 8.2 Symbols and Criteria Used for Coding Content.

Category	Symbol	Criterion
Whole human	<i>H</i>	For responses involving a whole human form. If the response involves a <i>real</i> historical figure, such as Napoleon, Joan of Arc, and so on, the content code <i>Ay</i> should be added as a secondary code.
Whole human, fictional, or mythological	<i>(H)</i>	For responses involving a whole human form that is fictional or mythological, such as clowns, fairies, giants, witches, fairy tale characters, angels, dwarfs, devils, ghosts, science fiction creatures that are humanoid, human-like monsters, silhouettes of human figures.
Human detail	<i>Hd</i>	For responses involving an incomplete human form, such as an arm, head, leg, fingers, feet, the lower part of a person, a person without a head.
Human detail, fictional, or mythological	<i>(Hd)</i>	For responses involving an incomplete human form that is fictional or mythological such as, the head of the devil, the arm of a witch, the eyes of an angel, parts of humanoid science fiction creatures, jack-o-lantern, and all masks <i>except</i> animal masks.
Human experience	<i>Hx</i>	Usually coded as a secondary content for answers that clearly involve the attribution of a human emotion or sensory experience to the object(s) in the response, such as <i>Two people who are in love looking at each other; A cat that is very sad; People who are angry at each other; A woman smelling something nasty; A very happy person; A man who is very excited; A person in great pain</i> . The attribution of the emotion or sensory experience must be clear and unequivocal. Answers such as, <i>People at a party; An angry looking face; A mean looking person; Two people who look tired</i> , are not coded <i>Hx</i> as the attribution is equivocal. <i>Hx</i> is scored as a primary content for formless <i>M</i> responses that involve the emotion or sensory experience such as love, hate, depression, happiness, sound, smell, fear, and so on. These answers will also include the use of <i>AB</i> as a special score.
Whole animal	<i>A</i>	For responses involving a whole animal form.
Whole animal, fictional, or mythological	<i>(A)</i>	For responses involving a whole animal that is fictional or mythological, such as a unicorn, dragon, magic frog, flying horse, Mythological Black Beauty, Jonathan Livingston Seagull.
Animal detail	<i>Ad</i>	For responses involving an incomplete animal form, such as the hoof of a horse, claw of a lobster, head of a dog, animal skin.
Animal detail, fictional, or mythological	<i>(Ad)</i>	For responses involving an incomplete animal form that is fictional or mythological such as, the wing of Pegasus, the head of Peter Rabbit, the legs of Pooh Bear, and all animal masks.
Anatomy	<i>An</i>	For responses in which the content is skeletal, muscular, or of internal anatomy such as bone structure, skull, rib cage, heart, lungs, stomach, liver, muscle fiber, vertebrae, brain. If the response involves a tissue slide, the content <i>Art</i> should be added as secondary.
Art	<i>Art</i>	For responses of paintings, drawings, or illustrations, either abstract or definitive, art objects, such as statues, jewelry, chandelier, candelabra, crests, badges, seals, and decorations. A feather seen worn as a decoration, often seen on Card VII, also should be coded as <i>Art</i> . In many responses coded for <i>Art</i> a second content will also be coded, such as a painting of two dogs would be <i>Art, A</i> , a sculpture of two witches would be <i>Art, (H)</i> , a caricature of two people bending over would be <i>Art, H</i> .
Anthropology	<i>Ay</i>	For responses that have a specific cultural or historical connotation such as totem, Roman helmet, Magna Carta, Santa Maria, Napoleon's hat, Cleopatra's crown, arrowhead, prehistoric axe, an Indian war bonnet.
Blood	<i>Bl</i>	For responses of blood, either human or animal.
Botany	<i>Bt</i>	For responses involving any plant life such as bushes, flowers, seaweed, trees, or parts of plant life, such as leaves, petals, tree trunk, root, bird's nest.

(continued)

Table 8.2 Continued.

Category	Symbol	Criterion
Clothing	<i>Cg</i>	For responses involving any article of clothing such as hat, boots, belt, dress, necktie, jacket, trousers, scarf.
Clouds	<i>Cl</i>	Used specifically for the content cloud. Variations of this category, such as fog or mist are coded <i>Na</i> .
Explosion	<i>Ex</i>	For responses involving a blast or explosion, including fireworks.
Fire	<i>Fi</i>	For responses of fire or smoke.
Food	<i>Fd</i>	Used for any edible common for humans, such as fried chicken, ice cream, fried shrimp, vegetables, cotton candy, chewing gum, steak, a filet of fish, or for animals eating a food that is natural for their species, such as a bird eating a worm or insect.
Geography	<i>Ge</i>	Used for the response of a map, specified or unspecified.
Household	<i>Hh</i>	Used for responses that include household items, such as bed, carving knife, chair, cooking utensil, cup, garden hose, glass, lamp, lawnchair, plate, rug (animal skin rug should be coded <i>Ad</i> and <i>Hh</i> entered as a secondary content), silverware. Some items coded <i>Hh</i> will also be coded as <i>Art</i> , such as candelabra, chandelier, or artistic pieces such as a centerpiece bowl.
Landscape	<i>Ls</i>	For responses that involve landscape, such as mountain, mountain range, hill, island, cave, rocks, desert, swamp, or seascapes, such as coral reef or underwater scene.
Nature	<i>Na</i>	Used for a broad variety of contents from the natural environment that are not coded as <i>Bt</i> or <i>Ls</i> , such as sun, moon, planet, sky, water, ocean, lake, river, ice, snow, rain, fog, mist, rainbow, storm, tornado, night, raindrop.
Science	<i>Sc</i>	For responses that are associated with, or are the direct or indirect products of science or science fiction, such as airplanes, buildings, bridges, cars, light bulb, microscope, motorcycles, motors, musical instrument, radar station, road, rocket ships, ships, space ships, trains, telescope, TV aerial, weapons, and so on.
Sex	<i>Sx</i>	For responses involving sex organs or activity of a sexual nature, such as penis, vagina, buttocks, breasts (except when used to identify the sex of a human figure), testes, menstruation, abortion, intercourse. <i>Sx</i> is usually scored as a secondary content. Primary contents are typically <i>H</i> , <i>Hd</i> , or <i>An</i> .
X-ray	<i>Xy</i>	Used specifically for the content of x-ray and may include either skeletal or organs. When <i>Xy</i> is coded, <i>An</i> is <i>not</i> included as a secondary code.

with a large hat on, standing next to a tree, would be *Art*, *H*, *Cg*, *Bt*. In a response such as, *Let's see, this could be a tree I suppose, and there is a person standing there, next to the tree, she's got a big hat on*, the central feature is the person even though the tree was mentioned first. Thus, the coding would be *H*, *Bt*, *Cg*.

Unusual Contents

Some responses will include contents that do not fit easily into one of the standard content

categories. When that occurs, the unique content should be written out and entered under idiographic contents, *Id*, on the Structural Summary Blank. It is important to make sure that the item does not fit into one of the standard content categories before deciding to enter it idiographically. For example, the contents of test tube, or carousel, occur infrequently and, at first glance, it may seem appropriate to list either idiographically. However, test tube does fit neatly into the *Sc* category, and a coding of *Art* is quite appropriate for carousel.

POPULAR RESPONSES (P)

There are 13 responses that occur with an unusually high frequency among the protocols of most groups of people. They are identified as *Popular* answers, defined using a criterion that requires the answer to appear *at least* once in every three protocols. The presence of a Popular response is

identified by the coding of *P*. When a Popular response occurs, the coding is entered in a separate column, after the coding for the content of the response. The 13 responses to be coded as *P* are shown in Table 8.3. The percentage of nonpatients and nonschizophrenic patients, from two large samples, that gave each response is also included.

Table 8.3 Popular Responses Used in the Comprehensive System plus the Proportions of Each Appearing in Samples of Nonpatient and Patient Protocols.

Card	Location	Criterion	% Nonpatients	% Patients
I	W	Bat, with the true apex of the blot being identified as the top portion of the bat, and always involving the whole blot.	48	38
I	W	Butterfly, with the true apex of the blot being identified as the top portion of the butterfly, and always involving the whole blot.	40	36
II	D1	Animal, specifically identified as bear, dog, elephant, or lamb. The response is usually the head or upper body, but responses involving the whole animal are also coded P.	34	35
III	D9	Human figures or representations thereof such as dolls, caricatures, etc. If D1 is used as two human figures, D7 or Dd31 should not be reported as part of the human figure.	89	70
IV	W or D7	Human or human-like figure such as giant, monster, science fiction creature, etc. Animal figures are not coded as P.	53	41
V	W	Butterfly, with the true apex of the blot being identified as the top portion of the butterfly, and always involving the whole blot. The whole blot <i>must</i> be used.	46	43
V	W	Bat, with the true apex of the blot being identified as the top portion of the bat, and always involving the whole blot.	36	38
VI	W or D1	Animal skin, hide, rug, or pelt. Often, the skin, hide, or pelt will be included in the description of a whole animal, such as a cat or fox, in natural or unnatural form. The decision about whether to code P in these responses is based on whether the skin or hide is actually mentioned, or clearly implied.	87	35
VII	D1 or D9	Human head or face, specifically identified as female, child, Indian, or with gender not identified. This Popular is usually embedded in answers given to the larger areas, D1, D2, or Dd23. If D1 is used, the upper segment (D5) is typically identified as hair or a feather. If the response includes the entire D2 or Dd23 areas, P is coded only if the head or face is restricted to the D9 area.	59	47
VIII	D1	Whole animal figure, usually of the canine, feline, or rodent varieties, with the head of the animal adjacent to the D4 area.	94	91
IX	D3	Human or human-like figures such as witches, giants, science fiction creatures, monsters, etc.	54	24
X	D1	Spider with all appendages restricted to the D1 area.	42	34
X	D1	Crab with all appendages restricted to the D1 area. Other variations of multilegged animals are not P.	37	38

The decision to code *P* is an *either-or* proposition. The response is Popular, or it is not. In some instances, a response will be very similar to, but not exactly like, the true Popular. The content may be altered slightly, or the location used may not coincide exactly with the requirements. These *are not* coded *P*. The most common of these "near" Popular answers occurs on Card V, when the person identifies the figure as a *bat* or *butterfly*, but then proceeds to eliminate the external *D10* areas when identifying the location. These answers are not coded *P*.

Caution should also be exercised concerning the blot position when deciding whether a response is to be coded as *P*. The blot need not be in the upright position for the coding of *P* to be assigned but, in the case of several of the Popular answers, the head of the human or animal reported must be identified as being in the same position *as if* the blot were upright. This rule is applicable to the *P* responses for Cards I, II, III, IV, V, VII, VIII, and IX.

Rorschach made no mention of Popular answers in his original work (1921). However, he did call attention to these responses in his posthumously published 1923 paper, referring to them as *Vulgar* answers, and defining them as answers occurring at least once in every three protocols. Each of the systematizers has included the *P* coding for Popular answers, but a considerable variation exists across the systems concerning the listings of responses to be scored *P*. These differences have been created by disagreements concerning the criterion for *P*, although in some instances sampling differences have contributed to the variations. Most of the systematizers broadened Rorschach's criterion of limiting the *P* coding to answers occurring at least once in three records.

Rapaport et al. (1946) recommends the scoring of *P* for responses occurring once in every four or five records. Beck et al. (1961) identify *P* responses as those occurring at least three times as frequently as the next most common answer to a blot, provided that it is given not less than once by at least 14% of his adult sample. Piotrowski (1957) included responses given at least once in every

four records. Hertz (1970) defines any answer that occurs at least once in six protocols as Popular, and presents the longest listing of Populars. The Klopfer and Davidson (1962) listing of Populars has considerably fewer answers, having been developed from "clinical experience," using Rorschach's guideline of responses occurring once in three protocols.

The decision to follow Rorschach's one-in-three criterion in the Comprehensive System was made after studying response frequency data for more than 7,000 protocols, about one-third of which are from nonpatients, selected from the pool of records used to construct Table A (Appendix). As illustrated in Table 8.3, there is great variation in the frequencies by which each of the 13 answers are reported. The animal forms on Card II, the crab response on Card X, and the human or human-like figures on Card IX, barely meet the one-in three criterion. Other *P* responses appear in one of every two protocols, and two (Cards III and VIII), occur in at least four of every five protocols.

Intercoder Agreement

The two interscorer reliability studies show percentages of correct agreement for both groups for coding *P* to be 99%. There is no room for error in coding *P*. Similarly, high percentages of correct agreement occurred for both groups in coding the *primary* content of responses. The 20 coders and 25 records yielded a 95% agreement for primary content, whereas the 15 coders and 20 records had a 96% agreement. However, the percentage of correct agreement for both groups was considerably lower for the coding of additional contents. The reliability study involving 20 coders and 25 records, yielded a modest 78% agreement for secondary contents and an only slightly better level, 82%, occurred among the 15 coders and 20 records. The disparity for each group was created much more by omissions rather than actual disagreements. Several important contents that contribute significantly to the calculation of some structural

variables, such as *Art*, Anthropology (*Ay*), Botany (*Br*), Clothing (*Cg*), Nature (*Na*), and Landscape (*Ls*) occur far more frequently as additional contents than as primary contents. The examiner should make sure to scan each answer carefully and code for each additional content that may exist.

ORGANIZATIONAL ACTIVITY

Organizational Activity is another feature that *may* occur in the response. Answers in which organization occurs are assigned a numerical value, called a Z score. Individual Z scores have no interpretive value, but the frequency with which they occur (*Zf*) and the sum of the values (*ZSum*) provides important information about the extent to which the person tends to organize new stimulus fields, and whether the effort usually is efficient.

Beck (1933) was the first to introduce an organizational score (Z score), using a scheme of weighing organized responses depending on the type of organization and the complexity of the stimuli involved. His method has been adopted for use in the Comprehensive System. Hertz uses a method in which all organized responses are weighed equally (*g* score, 1940), whereas Klopfer (1944) included some recognition of organizational activity in his Form Level Rating, but also included other elements in this score. Thus, it does not represent organizational activity *per se*. The other systems do not include a formal scoring for organizational activity, nor did Rorschach, although he appears to have offered some description of the process in his discussion of *Assoziationsbetrieb*.

When organizing activity occurs, relationships are established between elements of the stimulus field. In most of the Rorschach figures, it is easier to create a response to a common detail area (*D*) of the blot than to deliver a *W* answer. This is because most of the *D* areas are readily identifiable as one or more possible objects. Thus, when the person chooses to give a *W* answer, some more extensive organization of the field usually is required. The economical person may choose to report objects, singularly, or as a pair using the

symmetry. These types of answers do not require relationships between the object(s), or with other parts of the blot. That occurs only when the person organizes the material in the field in a way that creates a meaningful relationship. For instance, the *D1* area of Card VIII, as an animal, is a high-frequency Popular response. Some people merely report an animal on one side of the card. Others, noting the symmetry, report an animal on each side of the blot. Both are simple answers that do not require a Z score. On the other hand, many people report that the animal(s) are doing something, such as climbing a tree or mountain, or turn the card and report that the animal is walking across some rocks. These represent higher levels of cognitive activity that organize the stimulus field at a more sophisticated level, and are denoted by a Z score.

A Z score is assigned to any response that *includes form*, and meets at least one of the following criteria:

- ZW Is a Whole response that has a *DQ* coding of +, o, or v/+ (answers that have a *DQ* coding of v are never assigned a Z score).
- ZA Is a response in which two or more separate objects, identified in *adjacent* detail areas of the blot (areas that touch), are reported in a meaningful relation.
- ZD Is a response in which two or more separate objects, identified in *nonadjacent* (*distant*) detail areas of the blot (areas that do not touch), are reported in a meaningful relationship.
- ZS Is a response in which white space is integrated with other areas of the blot in forming a response. Responses using *only* white space are not assigned a Z score.

Two of the criteria, ZW and ZS, pertain to how the blot has been used. Any *W* response that is not *Wv*, and any response in which white space is used as part, *but not all*, of the answer qualify as Z. The other criteria, ZA, involving blot areas that are adjacent and ZD, involving blot areas that are not adjacent, require that *separate or discrete* objects be reported in a *meaningful* relationship. If either of

these criteria are met, the *DQ* coding will be + or v/+, to reflect the synthesizing activity that has occurred, such as *Two people looking at each other; An animal walking across a creek; Fire coming out of a rocket; A monster sitting on a stump.*

Form must always be used in responses coded *Z*. Thus, *Some paint splotches*, as a *DQv* response, that has a determinant coding of *C*, is not afforded a *Z* score. Likewise, *Some smoke, it's all grey like smoke*, that has a determinant coding of *C'*, is not assigned a *Z* score. *Wv* responses are not assigned *Z* scores because they do not have specific form requirements. If white space use qualifies for a *Z* score, other areas of the blot must also be used. For instance, the white areas of Card I are often reported as eyes and/or mouth in answers such as, *The whole thing looks like a mask of some sort, like a halloween mask, these are the eyes.* Similarly, the *DS5* area of Card II is often reported as a space ship, with the red *D3* area identified as an exhaust. Both of these answers meet the criteria for *Z*. On the other hand, if *DS5* is simply reported as a rocket, but no other blot area is used, the criterion for *Z* is not met.

Caution should be exercised about assuming an integration of white space with other blot areas. When defining the location of an object, a

person may outline a blot area that includes white space but fail to specify that the white space is being used as part of the response. When this happens *ZS* should not be scored. The erroneous scoring of *ZS* occurs most often on Cards III and X in which the blot areas are more broken. Sometimes parts of the blot are collectively identified as a face, and *D* or *Dd* areas are identified as eyes, nose, mouth, ears, beard, and so on. When the person specifies the area being used, arbitrary lines are created that include the various parts and also encompass much of the white ground, leading to the logical conclusion that the white is also being integrated. *But this is not true.* In most of these answers, the person is simply manifesting the Gestalt principle of closure and ignoring the white background. Thus, *ZS* is not scored. There are some face responses to Cards III and X in which the white space is integrated. These are answers that contain specific use of the white area as in, "It's the face of a clown, these are the eyes and the nose and he has white paint on." *ZS* is scored for this type of answer.

Once it is apparent that at least one of the four criteria for *Z* exists in a response, the next step is to select the appropriate value to assign. The *Z* values, card by card, and for each of the four criteria,

Table 8.4 Organizational (*Z*) Values for Each of the 10 Cards.

Card	Type of Organizational Activity			
	W (DQ: +, v/+, o)	Adjacent Detail	Distant Detail	White Space Integration
I	1.0	4.0	6.0	3.5
II	4.5	3.0	5.5	4.5
III	5.5	3.0	4.0	4.5
IV	2.0	4.0	3.5	5.0
V	1.0	2.5	5.0	4.0
VI	2.5	2.5	6.0	6.5
VII	2.5	1.0	3.0	4.0
VIII	4.5	3.0	3.0	4.0
IX	5.5	2.5	4.5	5.0
X	5.5	4.0	4.5	6.0

Source: This table is taken from S. J. Beck, A. Beck, E. Levitt, and H. Molish (1961). *Rorschach's Test*, Vol. I. New York: Grune & Stratton, 1961. Those familiar with the Beck system will note that Beck's special *Z* scoring for *W* with Adjacent Detail, which Beck uses for some responses to Cards III, VI, and VII, has been omitted in preference for criteria that are consistent across all cards.

are shown in Table 8.4. As will be noted, the Z values increase in relation to the complexity and/or effort required. If more than one of the criteria for Z exists in a response, *the higher value is assigned*. For instance, if a response to the whole Card I is, *A person in the middle (D4), and two people dancing around her (D2)*, the criteria for ZW (Whole) and ZA (Adjacent Detail) are both positive. The Card I value for ZW is 1.0 versus 4.0 for ZA. Thus, the higher value of 4.0 is assigned to the response.

The Z values are entered after the codes for Content and Popular such as, *W+ FMa.FCo (2) A, Ls P 4.5*, for a whole response to Card VIII.

REFERENCES

- Beck, S. J. (1933). Configurational tendencies in Rorschach responses. *American Journal of Psychology*, 45, 433-443.
- Beck, S. J., Beck, A., Levitt, E., & Molish, H. (1961). *Rorschach's test. I: Basic processes* (3rd ed.). New York: Grune & Stratton.
- Hertz, M. R. (1940). *Percentage charts for use in computing Rorschach scores*. Cleveland, OH: Western Reserve University, Brush Foundation and Department of Psychology.
- Kinder, B., Brubaker, R., Ingram, R., & Reading, E. (1982). Rorschach form quality: A comparison of the Exner and Beck systems. *Journal of Personality Assessment*, 46, 131-138.
- Klopfer, B., & Davidson, H. (1944). Form level rating: A preliminary proposal for appraising mode and level of thinking as expressed in Rorschach records. *Rorschach Research Exchange*, 8, 164-177.
- Klopfer, B., & Davidson, H. H. (1962). *The Rorschach Technique: An introductory manual*. New York: Harcourt, Brace & World.
- Mayman, M. (1966). *Measuring reality-adherence in the Rorschach test*. American Psychological Association meetings, New York.
- Mayman, M. (1970). Reality contact, defense effectiveness, and psychopathology in Rorschach form level scores. In B. Klopfer, M. Meyer, & F. Brawer (Eds.), *Developments in the Rorschach technique. III: Aspects of personality structure* (pp. 11-46). New York: Harcourt Brace Jovanovich.
- Piotrowski, Z. (1957). *Perceptanalysis*. New York: Macmillan.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Diagnostic psychological testing* (Vol. 2). Chicago: Yearbook Publisher.
- Rorschach, H. (1921). *Psychodiagnostik*. Bern, Switzerland: Bircher.

CHAPTER 9

Special Scores

The final task in coding the Rorschach response is to determine if the answer has any of the features that require the addition of one or more *Special Scores*. Like most other components in the Rorschach lexicon used to identify features of a response, Special Scores are really codes, rather than numerical scores. They are used to signify the presence of an unusual characteristic in the response. Currently, there are 15 Special Scores in the Comprehensive System. Six, identify unusual verbalizations, one is used for perservations, four pertain to special features of content, two are used to differentiate answers containing human representations, one is for personalized answers, and one identifies a special color phenomenon.

Rapaport, Gill, and Schafer (1946) first recognized the importance of identifying unusual features of answers, and devised 25 special categories for this purpose. Unfortunately, as Rapaport cautioned, many had overlapping criteria and, as a consequence, the interscorer reliability for most has been modest at best. As a result, the validation issues have been difficult to address. No Special Scores were included when the Comprehensive System was first published (Exner, 1974) because of problems with criteria, interscorer reliability, or a lack of convincing validation data. The first five, dealing with unusual verbalizations, added approximately two years later (Exner, Weiner, & Schuyler, 1976), were developed from research based on the works of Rapaport et al. (1946), Schafer (1954), and Weiner (1966). As the Comprehensive System evolved, three more were added

between 1978 and 1982 (Exner, 1978; Exner & Weiner, 1982), and the remaining seven have been developed since that time through research at the Rorschach Research Foundation (Exner, 1991, 2000, 2001).

UNUSUAL VERBALIZATIONS

Unusual verbalizations are an important element in the study of cognitive activity, especially issues of dysfunction. When some form of cognitive slippage occurs, whether momentary or for a longer interval, it will often manifest verbally. Evidence of cognitive slippage appears in the verbiage of most adults from time to time, and even more often among children. Few people express themselves clearly and precisely all of the time, and most everyone can identify instances in which their logic or judgment faltered temporarily. Similar slips in cognitive activity sometimes occur when a person is taking the Rorschach, and the appropriate identification of them can provide useful information when evaluating the thinking of the person.

Cognitive mishaps are evidenced in Rorschach responses in any of three ways: (1) *Deviant Verbalizations*, (2) *Inappropriate Combinations*, or (3) *Inappropriate Logic*. Six Special Scores are used to note the presence of these mishaps in Rorschach answers. Two are used to denote Deviant Verbalizations (*DV* and *DR*), three for Inappropriate Combinations (*INCOM*, *FABCOM*, *CONTAM*), and one for Inappropriate Logic (*ALOG*).

Four of the six Special Scores are also differentiated for bizarreness, and designated as either *Level 1* or *Level 2*. The four include the two used for Deviant Verbalizations (*DV* and *DR*), and two of the three scores used to identify Inappropriate Combinations (*INCOM* and *FABCOM*). This differentiation is necessary because a considerable range of dysfunction exists within each category.

LEVEL 1-LEVEL 2 DIFFERENTIATION

The Level 1 versus Level 2 differentiation is designed to identify responses that represent mild or modest forms of cognitive mismanagement as contrasted with those that reflect more serious forms of cognitive disarray. Although there is some subjectivity in making these differentiations, they are usually accomplished reliably by using the criteria of bizarreness versus naive inappropriateness.

When making these discriminations, the coder should attempt to gauge the extent to which the person disregards reality when giving the answer. In other words, does the disarray reflected in the answer represent a casual form of ideational negligence, or is it more the result of strained, disrupted, inappropriate thinking that departs rather noticeably from reality.

Level 1 Responses

A value of 1 is assigned to those answers in which a mild or relatively modest instance of illogical, fluid, peculiar, or circumstantial thinking is present. Although the Level 1 responses meet the criterion for the assigned Special Score, usually they are not markedly different from the cognitive slips that often occur when people do not pay close attention to how they are expressing themselves, or to the judgments that they are making.

In other words, although the Level 1 Scores do reflect inappropriate word use, detachment from the task, or faulty judgment, their quality is *not* really bizarre. Instead, they typically sound like the products of careless word selection, immaturity,

limited education, or judgments that simply are not well thought through.

Level 2 Responses

A value of 2 is assigned to those answers that reflect more severe instances of dissociated, illogical, fluid, or circumstantial thinking. Level 2 responses deviate markedly in the flawed judgment that is conveyed, the very unusual detachment from the task, or mode of expression that is used.

Level 2 responses stand out because they are manifestly inappropriate or bizarre. They seldom leave doubt concerning their scoring. When a coder has doubts about whether a response meets the Level 2 criterion, a conservative decision should be adopted, and the Level 1 score assigned to the answer. Extraneous elements such as age, educational level, or cultural background should *never be considered* in making the distinction between Level 1 and Level 2. These elements are considered when the Special Scores are interpreted, and they should not be used as some artificial guideline from which decisions about coding are made.

DEVIANT VERBALIZATIONS (DV & DR)

There are two Special Scores for Deviant Verbalizations (*DV* and *DR*). One is used to identify instances in which cognitive mishaps have led to inappropriate word selection. The second identifies segments of a response that have a strange quality. Both are characterized by modes of expression that tend to impede the person's ability to communicate clearly.

Deviant Verbalization (*DV*)

DV is assigned to those answers in which an inapplicable word or words have been used. *DV*'s appear in either of two forms, *neologisms* or *redundancies*, both of which create the impression of oddity in the

answer. *DV* responses are almost always easy to detect because the word(s) that is inappropriate stands out in the answer.

- **Neologism:** Involving the use of an inapplicable word, or neologism, in place of an appropriate word that falls well within the person's verbal capacity.

Some examples, differentiated by Level 1 and Level 2 are:

Response	Score
Wrestlers trying to <i>squish</i> each other	<i>DV1</i>
People having sexual <i>recourse</i> on a rock or blanket	<i>DV2</i>
Some bacteria you might see under a <i>telescope</i>	<i>DV2</i>
An x-ray of somebody's <i>public</i> arch	<i>DV2</i>
A fly <i>plopping</i>	<i>DV1</i>
A <i>misappropriated</i> person, like from Russia	<i>DV1</i>
These flowers have a <i>butterscotchy</i> center	<i>DV1</i>
This blood is all hard, like <i>congregated</i>	<i>DV2</i>
These are snakes in the Bible, from the garden of <i>evil</i>	<i>DV2</i>
This looks like a rabbit <i>slithering</i> on the ice	<i>DV1</i>

At times, a person may use the wrong word when identifying parts of an object, such as the word *tentacles* instead of *antennae* when describing a butterfly. These *are not* coded *DV*. They are *INCOMs*.

- **Redundancy:** Involving the odd use of language in which the person identifies *twice* the nature of the objects(s) reported.

Some examples, differentiated by Level 1 and Level 2 are:

Response	Score
The <i>two twin</i> lips of a vagina	<i>DV2</i>
A <i>tiny little</i> bird	<i>DV1</i>

(Note: The wording *little tiny* would not be a *DV*)

Response	Score
The <i>dead corpse</i> of a person	<i>DV1</i>
A <i>trio of three</i> people	<i>DV2</i>
A <i>pair of two</i> birds	<i>DV1</i>
It's empty, like a <i>hollow void</i>	<i>DV1</i>
Like the <i>double two</i> balls on a pawnbroker's sign	<i>DV2</i>

Deviant Response (*DR*)

DR is assigned for answers that have a strange or peculiar quality because the person has injected wording that reflects a tendency to detach from, or to distort, the task at hand. Some *DR*'s are coded when the person injects a phrase that is not relevant to the task. Other *DR*'s reflect answers in which the person tends to ramble inappropriately. Deviant Responses are not necessarily bizarre, but the verbiage clearly is inappropriate to the task at hand. *DR* answers will manifest in either of the following two ways:

1. **Inappropriate Phrases.** These are answers that include phrases that are inappropriate, or completely irrelevant, to the response or the task at hand. Parenthetical statements, such as, "These are really hard to figure out," or "Oh, we're getting color for a change," or "I guess I could find a lot of things here if I try," *are not* coded as *DR*. The *DR* coding for inappropriate phrases is limited to phrases embedded in the response itself, and offered in relation to the response. They represent comments that make the answer more unusual than should be the case. Even though they are extraneous to the task, the person has inserted them in the verbiage concerning the response.

Most *DR*'s involving inappropriate phrases will be benign, but those coded as *DR2* tend to reflect problems in maintaining adequate ideational control. Some illustrations, differentiated by Level 1 and Level 2 are shown on page 137:

Response	Score	he or she verbalizes the organization of the response. In the circumstantial DR, the individual tends to wander off target and, in some instances, may actually never return to the response object. Some examples, differentiated by Level 1 and Level 2 are shown next:
It could be lobsters <i>but they're not in season.</i>	DR1	
I guess a dog, <i>my father never let me have one.</i>	DR1	
It's some kind of plant that <i>no one has ever seen.</i>	DR2	
It could be the face of Clinton <i>if you're a Democrat.</i>	DR2	
A bat, <i>but I wanted to see a butterfly.</i>	DR2	
A vagina, <i>whoever made these was preoccupied.</i>	DR1	
2. Circumstantial Responses. Involving answers that are fluid or rambling in which the person becomes inappropriately elaborative in ways that seem to ignore the task. Most examiners find the circumstantial DR easy to detect because so much of the verbiage has little relevance to the response. It represents a form of ideational distraction from the task and illustrates the marked difficulty that the person has in achieving a definition of the object or bringing closure to the response.		
Circumstantial DRs are not necessarily long explications, and caution should be exercised to avoid confusing the circumstantial DR response with answers that are "stilted," but on target, or answers that are very detailed, but appropriate to the task. Some people struggle to explain themselves, and their wording often seems stilted. For instance, a person might say, <i>Over here, no wait. Okay, over here it seems like a, a, head, maybe. Yes a head, like the head of ah, ah, I'll guess a dog. No wait, not a dog, a fox is better.</i> It is a strained response, but it is not circumstantial. The person works to stay on target. It is not coded DR.		
In a similar context, some people elaborate in considerable detail when giving a response, or when describing it in the Inquiry. These are appropriate answers, provided the person stays on target and simply provides considerable detail as		
Response	Score	
I'm not sure what this could be, something like an animal nose, maybe equine or bovine, <i>like in that play that was so filled with passions and psychological drama. I saw it twice.</i> Yes, the nose of a horse.	DR2	
It's like chicken, like you get from Colonel Sanders, <i>but my mother makes it better, I think I must be getting hungry.</i>	DR1	
It's like a map of Ireland, maybe not Ireland, maybe someplace else, but it could be Ireland. <i>I don't know much about Ireland but I know about Mexico.</i>	DR2	
Maybe two snakes, <i>I always hated snakes, my brother used to tease me about it something awful.</i>	DR1	
It looks like some trees way off on a hill, it looks so peaceful, <i>like a place that you'd want to go to get away from everything.</i>	DR1	
It looks like oil on water and garbage too, just a lot of pollution with all the foul impurities that filthy people have thrown into the environment. <i>People really are filthy, they ought to make laws to eliminate them or force them to wallow in their own filth.</i>	DR2	
Oh dear, I've seen something like that in a magazine, it's like a person from Samoa or someplace like that, <i>I read a lot because it sharpens your mind and you can learn a lot about the world if you devote some time to reading every day.</i>	DR2	

Most examiners find the circumstantial DR easy to identify because so much of the verbiage has little or no relevance to the actual response. Circumstantial verbiage is not necessarily bizzare. It might be appropriate in a different situation, but is inappropriate to the task at hand. Some DR answers

will also contain a *DV*. When this occurs, *only* the *DR* is coded.

INAPPROPRIATE COMBINATIONS

Three Special Scores (*INCOM*, *FABCOM*, and *CONTAM*) are used to identify responses in which unreal features are reported concerning an object, implausible relationships are reported or inferred between objects, implausible activities are attributed to objects, or an inappropriate condensation of impressions occurs in a manner that violates reality. Two of the three types of inappropriate combinatory responses (*INCOM* and *FABCOM*), are also differentiated as Level 1 or Level 2.

Incongruous Combinations (INCOM)

The *INCOM* code is used to identify responses in which one or more highly implausible, or impossible, features or activities are attributed to a *single* object. If the object is portrayed as in a cartoon, the *INCOM* is not assigned as cartoon characters can take any form, or engage in activities that are otherwise implausible. As with the *DV* and *DR* answers, Level 1 and Level 2 distinctions are made in terms of bizarreness. Level 1 *INCOM* responses tend to be casual and/or benign, whereas the Level 2 *INCOM* is strange and unrealistic. Some examples, differentiated as Level 1 and Level 2 are:

Response	Score
A frog with <i>four testicles</i>	<i>INCOM2</i>
A bat, here are the wings, body, and these are his <i>hands</i>	<i>INCOM1</i>
A woman with the <i>head of a chicken</i>	<i>INCOM2</i>
<i>Red</i> bears	<i>INCOM1</i>
A marvelous penis <i>with wings</i>	<i>INCOM2</i>
A man with <i>yellow eyes</i>	<i>INCOM1</i>
A dog there, he's <i>laughing out loud</i>	<i>INCOM2</i>
A person with <i>two heads</i>	<i>INCOM2</i>
A spider with a lot of <i>antlers</i> sticking out	<i>INCOM1</i>
A cat's face, he's <i>smiling</i>	<i>INCOM1</i>

Fabulized Combination (FABCOM)

The *FABCOM* code is used to identify answers in which an implausible, or impossible, relationship is posited to exist between two or more objects. *FABCOM* is also scored for implausible transparencies. Except for transparencies, *FABCOM* answers *always* include two or more objects. *FABCOM* responses are differentiated as Level 1 and Level 2 using the criterion of bizarreness as a basic guideline. Level 1 *FABCOMs* often include answers which, if identified as a cartoon, would not have a Special Score. The Level 2 *FABCOMs* are much more striking or bizarre in the manner by which they violate reality. Implausible transparencies are *always* coded as Level 2. Some examples, differentiated as Level 1 and Level 2 are:

Response	Score
Two dogs playing <i>basketball</i>	<i>FABCOM1</i>
Two women attacking a <i>submarine</i>	<i>FABCOM2</i>
Two ants <i>dancing</i>	<i>FABCOM1</i>
There is a big man sitting there and you can see his <i>heart pumping</i>	<i>FABCOM2</i>
Some mice riding on a <i>merry-go-round</i>	<i>FABCOM1</i>
The head of a rabbit with <i>smoke coming out of his eyes</i>	<i>FABCOM2</i>
Two chickens there, they are doing a <i>high five</i>	<i>FABCOM1</i>
It looks like a lot of insects <i>having a party</i>	<i>FABCOM1</i>
A butterfly <i>swallowing</i> a dog	<i>FABCOM2</i>
Two beavers <i>trimming</i> a Christmas tree	<i>FABCOM1</i>

Contamination (CONTAM)

This is the most bizarre of the inappropriate combinations. The *CONTAM* represents two or more impressions that have been fused into a single response in a manner that clearly violates reality. The process of fusion causes impairment to the adequacy of either impression in contrast to the situation where they might be reported separately. Whereas the *INCOM* combines impressions from a

discrete blot area into a single implausible object, the *CONTAM* response involves the use of a discrete area and, in effect, one response psychologically overlays another, as in a photographic double exposure.

Contaminations often, but not always, include the use of a neologism or other peculiar verbalizations to describe the object. A classic illustration of the neologistic *CONTAM* is the condensation of the front view of a bug and the front view of an ox into, *The face of a bug-ox*. Another involves viewing Card III upright, and then inverted, and then concluding that the center red D3 is, *No doubt a butterfly*, apparently fusing the impressions of a flower and a butterfly. In other instances, the strained logic that characterizes the *CONTAM* is more directly manifest as in, *It looks like blood, and an island, it must be a bloody island*, or, *It looks like fire and it looks like a mountain so it must be some sort of a fire mountain*.

Some Contaminations are less obvious or dramatic in the basic response and only become apparent in the Inquiry. A response to the whole Card I serves as a good illustration:

RESPONSE

It's a butterfly

INQUIRY

E: (Rpts S's resp)

S: These are his wings (D2) and his body (D4) and here are his eyes (DdS26) and mouth (DdS29) and ears (Dd28)

In this answer, the subject has fused the *Popular* butterfly response with a face response. The form quality for both is *ordinary* and thus the coding for the entire response is:

WSo Fo A P 3.5 *CONTAM*

If a response is coded *CONTAM*, none of the other Special Scores for unusual verbalizations (*DV*, *DR*, *INCOM*, *FABCOM*, *ALOG*) should be included

in the scoring even though some of the wording of the response meets the criteria for them.

Inappropriate Logic (ALOG)

The *ALOG* coding is assigned whenever the person, *without prompting*, uses strained, unconventional reasoning to justify the answer. It represents a loose and simplistic form of thinking that breeds flawed judgment. *ALOG* is coded *only* when the strained logic is offered spontaneously, and without any prompting by the examiner. Sometimes, *ALOG* answers are easily identified in the basic response by an illogical "because" factor that is injected by the person to justify a conclusion. Usually, this justification will refer to size, spatial elements, coloring, or other features of the object. Some examples of these concrete forms of *ALOG* are:

This must be the north pole because it is at the top of the card.

He must be a coal miner because he's all black.

The green part must be lettuce because it's next to this rabbit.

It has to be a giant bird because it takes up all of it [the card].

In other instances, the *ALOG* is not apparent until the onset of the Inquiry, or in response to a question asked by the examiner regarding a key word *that was given in the basic response*. Some examples follow with the wording that confirms the *ALOG* shown in italics:

RESPONSE

That must be a giant

INQUIRY

E: (Rpts S's resp)

S: Here's his head & arms, it must be a giant cuz *he's got those big feet*

RESPONSE

That'll an evil person

INQUIRY

E: (Rpts S's resp)

S: Here's his head & hat & legs

E: U said he is an evil person

S: *He must be, he's wearing a black hat*

RESPONSE

That 11 a cat

INQUIRY

E: (Rpts S's resp)

S: There's his head & legs, *he must be dead because you can't see his eyes*

RESPONSE

That 11 the face of a sad man

INQUIRY

E: (Rpts S's resp)

S: Here r the eyes and nose and mouth and he has a mustache

E: U said it's a sad man?

S: *It has to be, his mustache droops down*

RESPONSE

Dragons eating a woman

INQUIRY

E: (Rpts S's resp)

S: She's in the middl & thyr on each side

E: I'm not sur I c it lik u are

S: Well her head is already gone, *these thgs r so big, thy must be dragons, thy r the only ones tht eat women*

In three of the examples (evil person, sad man, and dragons), a key word mentioned in the response was inquired, or a request clarification occurred, and an *ALOG* answer resulted spontaneously. There is no evidence of provocation by the examiner. However, it is important to emphasize that flawed logic will sometimes manifest during the

Inquiry in response to specific questions from the examiner that *are not* related to a key word in the response proper. Even though the flawed logic exists, *ALOG* should *not* be scored because it may have been provoked by the question or by the general nature of the Inquiry task as the person works to explain a response. For instance:

RESPONSE

It 11 two people doing smthg, mayb dancing

INQUIRY

E: (Rpts S's resp)

S: Yes, there are two of them, one here and one here, c the heads & legs, they r bent over lik in a dance, probably African people

E: African people?

S: Well thyr dark colored, black, I guess that other thing (points to *D7*) *must b a drum cuz that's what they dance around, they do that a lot*

The concrete logic (*must be a drum cuz that's what they dance around*) is quite obvious, but the issue is whether it was provoked. The examiner's question (*African people*) may or may not have provoked it, but it does seem certain that it would not have occurred if the examiner had not asked the question. Thus, it should not be coded as *ALOG*.

PERSEVERATION (PSV)

The Special Score (*PSV*) is used to indicate the presence of any of three kinds of answers. One is when two or more almost identical responses are given to the same card. A second reflects instances in which a previously given response is alluded to again when the person is responding to a different card. The third is the situation in which the person redundantly gives the same answer across several cards. These sorts of responses reflect forms of perseveration that may be caused by cognitive inflexibility, cognitive dysfunction, or a marked psychological preoccupation.

Although it is clear that at least three types of perseveration may occur, all are assigned the same Special Score, *PSV*. Only one form of coding is used because there are no validation data from which to argue that each type of perseveration should be identified separately, even though logic suggests that the sorts of cognitive dysfunction and/or psychological preoccupation that they reflect are probably quite different.

Within Card Perseveration

The Within Card *PSV* responses are consecutive answers in which the *same location, DQ, determinant(s), FQ, content, and same Z score*, if one has been assigned, appear in both answers. The specific content may change slightly, but the content category remains the same. Special Scores do not have to be the same in both answers.

The most common instance of the Within Card *PSV* occurs to Card V, to which the person first gives the response "bat," (*Wo Fo A P 1.0*) and then gives the response "bird," (*Wo Fo A 1.0*) which is coded identically, except it is not *Popular*. Replication of the *P* coding is *not* essential to code a Within Card *PSV*, but all other codes, *except* Special Scores, must be identical and the responses must occur consecutively.

Content Perseveration

Whereas the Within Card *PSV* is only for consecutive responses within a single card, Content *PSV* usually does not occur within the same card. These are answers in which the person identifies the object as *the same one* seen previously. The coding of the second answer need not be the same as the first, and often the codings will differ quite significantly.

For instance, an individual may report two people fighting on one card, and then indicate, *Oh, there are those people again, but they are not fighting now*. The critical issue in coding Content perseveration is that the person identifies the new

object as being the same as one reported in an earlier response.

Mechanical Perseveration

A third type of perseveration response is found most frequently among people who are intellectually and/or neurologically impaired. Usually, this type of perseveration occurs in brief and simplistic records. The person mechanistically reports the same object over and over. Card I is a bat, Card II is a bat, Card III is another bat, and so on. People who persevere mechanistically are likely to give records of less than 14 answers, that is, invalid records. If this occurs, the examiner should weigh carefully the merits of attempting to retest the individual.

SPECIAL CONTENT CHARACTERISTICS

Four Special Scores have been devised to identify responses that include specific cognitive features or contain projected material seemingly related to characteristics of the self. These response characteristics are not identified by any of the determinants or the various content codes. Each of these four Special Score categories relates to some characteristics of thinking and/or issues of self-image and interpersonal relations.

Abstract Content (AB)

The *AB* Special Score is used for two classes of answers, each of which incorporate a clear and specific symbolic representation. The first class of *AB* answers includes those for which the only content code is *Human Experience (Hx)*, used to note human emotion or sensory experience. These are *DQv* answers that contain a formless *M* determinant, such as, *This whole thing represents depression, it's all black and gloomy looking (Wv Mp.C' Hx AB)*; *It's all anger, the intense colors are blended together (Wv Ma.C.Y Hx AB)*; or, *It's a mess, it's like a tremendously loud sound (Wv Ma Hx AB)*.

The second class of *AB* answers includes answers in which *form is used*, and the person also articulates a *clear and specific symbolic representation* in the response. In some instances, a symbolic meaning is attributed directly to an object as in, "This statue *represents the love of life*" (*Do Fu Art AB*). In other responses, a *separate* blot feature is used to denote the symbolic representation that is attributed to the formed object(s), such as "These are two people in love, longing for each other. *The middle red part shows their love and longing*" (*D + Ma.Co 2 H, Hx P 4.0 AB*). Abstract paintings *are not* scored *AB* unless a specific representation is included. Some examples of this class of *AB* answers are:

- A statue representing fascism.
- A state flag with the forests and rivers represented.
- A modern dance representing the beauty of women.
- A heart, it's a symbol for Valentine's day.
- Animals with blood on them and the person who drew this put this red down here to symbolize their pain.
- A mask that represents evil.
- An abstract painting that depicts the agony of life.
- A Blake painting of man's struggle for purity.
- Statues that illustrate the innocence of children.
- People holding hands, they're blue to symbolize their serenity.

Aggressive Movement (AG)

The *AG* coding is used for any movement response (*M, FM, or m*) in which the action is clearly aggressive, such as fighting, breaking, arguing, looking very angry, and so on. The aggression *must* be occurring. Caution should be exercised to avoid coding *AG* for responses in which the object has been subjected to aggression, such as, "A bear that has been shot," or "A ship that has been bombed." These *are not* *AG*

responses. Similarly, an explosion *per se* is not *AG*, but something *being* destroyed by an explosion is *AG*. Some examples are:

- The face of a man, he's furious about something.
- It looks like a fist smashing through a wall.
- It looks like a piece of cloth that's being torn.
- Two people arguing about something.
- Two insects are trying to knock down this post.
- It looks like a man glaring right at you.

Cooperative Movement (COP)

The *COP* coding is assigned to any movement response (*M, FM, or m*) involving two or more objects in which the interaction is *clearly* positive or cooperative. The positive or cooperative characteristic of the interaction must be *unequivocal*. Thus, two people looking at something, or two people talking are *not* scored *COP*. Dancing will *always* be coded as *COP*, provided two or more objects are involved. Some responses will be coded for both *AG* and *COP* when humans or animals are cooperating in the aggressive act. Some examples are:

- Two people picking up a table.
- Two gnomes trying to knock down this post.
- Two people leaning toward each other, sharing a secret.
- Three people doing a dance together.
- A bird feeding her young.
- Two children playing on a see-saw.
- Two wolves attacking some other animal.

Morbid Content (MOR)

The *MOR* coding is used for any response in which an object is identified by either of two classes of characteristics:

1. Identification of the object as dead, destroyed, ruined, spoiled, damaged, injured, or broken.

Some examples are a *broken* mirror, a *dead* dog, a *worn out* pair of boots, a bear that is *hurt*, a *wound*, a *torn* coat, a *decaying* leaf, a *lab slide* of an amoeba, some roots that have been *torn out* of the ground, a *bleeding* face, a *broken down* house, a *battered* butterfly.

2. Attribution to an object of a clearly dysphoric feeling or characteristic. Examples are a *gloomy* house, a *sad* tree, an *unhappy* person, a person *crying*, *depression*.

HUMAN REPRESENTATIONAL RESPONSES

Most all protocols will contain some answers in which there is a form of human representation. Perry and Viglione (1991) postulated that these responses relate, in some ways, to the manner in which people perceive and/or interact with others. They included an algorithm (*HEV*) for coding human representational answers as one segment when creating the Ego Impairment Index (Perry & Viglione, 1991; Perry, Viglione, & Braff, 1992; Perry, McDougal, & Viglione, 1995). Burns and Viglione (1996) studied the *HEV* separately, as associated with interpersonal relatedness, and noted a substantial relationship. Subsequently, Perry and Viglione, working with the Rorschach Research Council of the Rorschach Research Foundation, suggested some modifications for the *HEV* algorithm. It was tested across several data samples for which information concerning interpersonal behavior was also available.

The resulting analyzes yielded very positive findings and prompted the decision to add two Special Scores into the Comprehensive System to differentiate human representational answers (Exner, 2000). These answers are identified by the other codings that have been assigned to the response, and then assigned either of the two Special Scores, *GHR* (good), or *PHR* (poor).

Typically, human representational answers will be easily identified because they include one or more of the codings for human content, *H*, (*H*), *Hd*, (*Hd*), or *Hx*. However, in some responses,

human-like features will be manifest in other ways. For instance, *A rabbit dancing a ballet*, would have a determinant coding of *M* because of the human-like activity. Similarly, *Two dogs playing*, would be assigned the Special Score *COP* because of the attribution of a positive interaction.

In this context, Human Representational Responses are defined as those answers that meet any of the following three criteria:

1. Responses that contain any Human Content Coding [*H*, (*H*), *Hd*, (*Hd*), *Hx*].
2. Responses that contain the determinant *M*.
3. FM responses that have *COP* or *AG* special scores.

In the course of entering codes pertaining to other response features, each answer should also be reviewed to determine if any of the coding criteria for defining human representational answers is met. If so, the scorer then determines which of the two Special Scores, *GHR* or *PHR*, is appropriate by using the sequence of steps that is shown in Table 9.1.

These steps are followed *in order* until a coding decision is made. Assume, for instance, that an answer is coded *Do Fo H*. It meets the criteria listed in Step 1 for *GHR*. It is a Pure *H* response, with o form quality, and has no Special Scores. Conversely, if the coding were *Do Fo Hd*, the decision would not be made at Step 1 because the content is *Hd*, rather than Pure *H*. The answer would finally be classified as *PHR* at Step 6 because of the *Hd* content coding. Other illustrations, showing the step at which the coding decision is made, are shown below:

Response Coding	GHR/PHR Decision
<i>D+ Ma.FYø 2 H,Cg P 3.0</i> <i>FABCOM</i>	Coded <i>PHR</i> at Step 4
<i>DSø FC'o (Hd)</i>	Coded <i>GHR</i> at Step 7
<i>W+ FMa.FCo 2 A,Bt 4.5</i> <i>COP, ALOG</i>	Coded <i>PHR</i> at Step 2
<i>D+ Ma.mpo 2 Hd, Art</i> <i>P 3.0 DV</i>	Coded <i>GHR</i> at Step 5

Table 9.1 Steps Used to Assign Good (*GHR*) or Poor (*PHR*) Designations to Human Representational Responses.

1. Score *GHR* for answers containing a Pure *H* coding that also have all of the following:
 - (a) Form Quality of *FQ+*, *FQo* or *FQu*
 - (b) No cognitive special scores except *DV*
 - (c) No special scores of *AG* or *MOR*
2. Score *PHR* for answers that have either:
 - (a) *FQ* minus or *FQnone* (No Form), or
 - (b) *FQ+*, *FQo* or *FQu* and have an *ALOG*, *CONTAM*, or any Level 2 cognitive special score
3. Score *GHR* for any remaining human representational answers that have the special score *COP*, but do not have the special score *AG*
4. Score *PHR* for any remaining human representational answers that have either:
 - (a) The special scores *FABCOM* or *MOR*
 - (b) The content score *An*
5. Score *GHR* for any remaining human representational answers to Cards III, IV, VII, and IX that are coded Popular
6. Score *PHR* for any remaining human representational answers that have any of the following:
 - (a) The special scores *AG*, *INCOM*, or *DR*
 - (b) An *Hd* coding [not (*Hd*) coding]
7. Score *GHR* for all remaining human representational answers

include the use of a personal pronoun, I, me, my, or we, but in some instances the personal knowledge or experience is conveyed without a personal pronoun being employed. In these cases, the examiner should be convinced that the individual is injecting personal knowledge or experience to justify the response rather than simply offering commentary. For instance, comments such as, *They used them a long time ago*, or *I've never seen one but I think they are like that* or *I don't like them are not PER*. Some examples of *PER* are:

We had one like that once.
 I see them all the time in the yard.
 I used to make them like this.
 They make you wear ones like it in the army.
 My father showed me some once.
 If you ever took biology you know they look like that.
 I bought one like it for my daughter.
 My grandfather used to collect them.
 I've seen ones like that on TV.
 You know, like they have hanging over the door.
 People use them for decorations a lot.

PERSONALIZED ANSWERS

Many responses contain personal pronouns such as I, me, my, or we. Most are used naturally in the course of articulating a response, such as "It looks like a bat to me," or "I think that it looks like two people." However, there are instances in which these forms of self-reference are used as part of the justification for an answer. When that occurs a Special Score is required because it signals a form of defensiveness.

Personal (PER)

The *PER* code is assigned to any response in which the person refers to personal knowledge or experience as part of the basis for justifying and/or clarifying a response. Ordinarily, *PER* responses

SPECIAL COLOR PHENOMENA

In most instances, people identifying chromatic colors will do so correctly, that is, red as red, green as green, and so on. In rare instances, some people misidentify chromatic colors. If this occurs, the examiner should pursue the issue cautiously in the Inquiry to determine if a verbal lapse may have occurred. If the person makes an appropriate correction, the response should be coded *DV* to indicate the verbal slip. Conversely, if no correction is made, an appropriate examination for color vision probably should be conducted. If it can be assumed that color vision is intact, the response is a *DV*. There is another special phenomenon involving color for which a Special Score is assigned.

Color Projection (CP)

The *CP* coding is assigned to any response in which a person identifies an achromatic blot or blot area as being chromatically colored. These are rare responses, occurring most frequently to Cards IV or V. In most, the chromatic coloring is hinted at, but not specified in the original response, such as, *Oh, what a beautiful butterfly*. The key word, "beautiful" should be pursued in the Inquiry, and some people do report that the blot has a *pleasant purple coloring*, or *different yellows and blues* and the like. There are no data to suggest that responses such as these are related to deficiencies in color vision and research indicates that they do have a special interpretive significance.

CP is coded only when the person identifies the presence of chromatic coloring in the achromatic blot area. Most people who give *CP* answers tend to delineate the chromatic colors by using the shading features of the blot, thus requiring a determinant coding for diffuse shading (*FY*, *YF*, or *Y*). The determinants for chromatic color (*FC*, *CF*, or *C*) are never included in the scoring for these answers because there is no chromatic coloring in the blot.

MULTIPLE SPECIAL SCORES

It is not uncommon for a response to meet the criteria for more than one Special Score and, usually, when that occurs all of the Special Scores that apply should be included in the coding. However, there are exceptions to this rule. Nine of the 15 Special Scores (*PSV*, *AB*, *AG*, *COP*, *MOR*, *GHR*, *PHR*, *PER*, and *CP*) are independent of each other and should always be included in the coding when they occur. The remaining six, often referred to as the *Six Critical Special Scores*, may/do have some interrelationships and caution is required about coding more than one of them for a single answer. Some of these cautions have been mentioned earlier.

None of the other five "critical" Special Scores (*DV*, *DR*, *INCOM*, *FABCOM*, or *ALOG*) will be

included if a *CONTAM* has been scored. The *CONTAM* reflects a very serious form of cognitive disarray and even though they often include a *DV* or *DR* and always, implicitly or explicitly, meet the criterion for *ALOG*, the addition of a second critical Special Score can confuse interpretation.

The issue of whether more than one of the remaining five critical Special Scores should be coded for a response is less precise. The decision is based on whether they occur discretely. If the verbiage meeting the criterion for one critical score is completely independent of the verbiage meeting the criterion for a second critical score, both should be scored. However, if the criteria overlap, only the score with the higher weighted value (*WSum6*) should be assigned.

For example, *Two bears slapping their hands together* contains both an *INCOM* (hands) and a *FABCOM* (slapping their hands together). However, only the *FABCOM* should be coded because the *INCOM* is embedded in the wording that identifies the *FABCOM*. The same wording, or the same instance of cognitive confusion, should *never* be used as a source from which to code more than one of the critical Special Scores. As noted earlier, a *DV* may appear in the context of a *DR*, and when this happens, the *DV* should not be scored.

On the other hand, if an answer includes discrete verbiage meeting the criteria for more than one critical score and no overlap exists, both critical Special Scores should be entered. For example, *Two pink bears climbing the sides of an ice cream sundae* contains both an *INCOM1* (pink bears) and a *FABCOM2* (climbing the sides of an ice cream sundae). These are discrete instances, the wording does not overlap. The fact that the bears are pink has nothing to do with the fact that they are climbing the sides of a sundae. Thus, both Special Scores should be entered for the answer.

Intercoder Agreement

The percentages of correct agreement in the two intercoder reliability studies, for 13 of the 15 Special Scores, are shown in Table 9.2.

Table 9.2 Percentage of Coder Agreement for 13 Special Scores in Two Reliability Studies.

Special Score	Symbol	20 Coders 25 Records Percentage Agreement	15 Coders 20 Records Percentage Agreement
Deviant Verbalization	DV	96	97
Deviant Response	DR	94	95
Incongruous Combination	INCOM	97	97
Fabulized Combination	FABCOM	98	97
Inappropriate Logic	ALOG	93	95
Contamination	CONTAM	99	99
Perservation	PSV	None present	99
Aggressive Movement	AG	97	96
Cooperative Movement	COP	98	99
Morbid Content	MOR	98	99
Abstract	AB	96	95
Personal	PER	96	97
Color Projection	CP	99	None present

A separate study was conducted to determine the percentages of correct agreement regarding the GHR and PHR Special Scores. It involved 29 coders using the Table 9.1 algorithm to make decisions concerning 321 responses, of which 74 contained human representational features. The resulting percent correct agreement is 96% for GHR and 97% for PHR.

REFERENCES

- Burns, B., & Viglione, D. J. (1996). The Rorschach Human Experience Variable, interpersonal relatedness and object representation in nonpatients. *Psychological Assessment*, 21, 109-112.
- Exner, J. E. (1974). *The Rorschach: A Comprehensive System. Volume 1*. New York: Wiley.
- Exner, J. E. (1978). *The Rorschach: A Comprehensive System. Volume 2. Current research and advanced interpretation*. New York: Wiley.
- Exner, J. E. (1991). *The Rorschach: A Comprehensive System. Volume 2: Interpretation* (2nd ed.). New York: Wiley.
- Exner, J. E. (2000). *A primer for Rorschach interpretation*. Asheville, NC: Rorschach Workshops.
- Exner, J. E. (2001). *A Rorschach Workbook for the Comprehensive System* (5th ed.). Asheville, NC: Rorschach Workshops.
- Exner, J. E., & Weiner, I. B. (1982). *The Rorschach: A Comprehensive System. Volume 3. Assessment of children and adolescents*. New York: Wiley.
- Exner, J. E., Weiner, I. B., & Schuyler, W. (1976). *A Rorschach Workbook for the Comprehensive System*. Bayville, NY: Rorschach Workshops.
- Perry, W., McDougal, A., & Viglione, D. J. (1995). A five year follow up on the temporal stability of the Ego Impairment Index. *Journal of Personality Assessment*, 64, 112-118.
- Perry, W., & Viglione, D. J. (1991). The Rorschach Ego Impairment Index as a predictor of outcome in melancholic depressed patients treated with tricyclic antidepressants. *Journal of Personality Assessment*, 56, 487-501.
- Perry, W., Viglione, D. J., & Braff, D. (1992). The Ego Impairment Index and schizophrenia: A validation study. *Journal of Personality Assessment*, 59, 165-175.
- Piotrowski, Z. (1957). *Perceptanalysis*. New York: Macmillan.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Diagnostic psychological testing* (Vol. 2). Chicago: Yearbook Publishers.
- Schafer, R. (1954). *Psychoanalytic interpretation in Rorschach testing*. New York: Grune & Stratton.
- Weiner, I. B. (1966). *Psychodiagnosis in schizophrenia*. New York: Wiley.

CHAPTER 10

The Structural Summary

The objective of coding each response accurately is to be able to complete the *Structural Summary*. The Summary represents the composite of code frequencies plus many ratios, percentages, and numerical derivations. They are the data from which many interpretive postulates concerning psychological characteristics and functioning are generated.

A *Structural Summary Blank* has been created for use with the System to facilitate the summarization of the protocol. The first page is used to record demographic data. The second page, the *Sequence of Scores*, is designed for recording of the scoring for each response. The third page is the actual *Structural Summary*. The fourth is a worksheet for tallying six indices and constellations. The fifth contains a table of Z scores and Estimated Z scores, plus age adjustment data for three variables, and the last page is the Rorschach *Location Sheet* for use to identify various location selections when administering the test.

There are three procedures involved in creating the *Structural Summary*: (1) listing the Sequence of Scores, (2) recording frequencies for each variable, and (3) performing various calculations required to obtain the ratios, percentages, and derived scores. These procedures are illustrated best by using the data from an actual protocol.

SEQUENCE OF SCORES

The listing of the codes for each response is done card by card, and with the responses numbered consecutively. This may have been done when the

responses were scored, but most examiners prefer to record the scoring on the protocol itself, beneath each response, and then copy those scores on to the recording form for the *Sequence of Scores*.

The compilation of the coding for the responses makes it easier to do the frequency tallies that are required, and the *Sequence* itself is often an additional source of interpretive data. The *Sequence of Scores* page of the *Structural Summary Blank* includes columns for card number, response number, and each of the major categories of coding used. It also has a column after the Location section, headed *Loc.No.*, that can be used to record the location number of the area used in the response, such as D3, DdS26. If a Dd area used is not numbered in Table A, the number 99 is entered. The listing of location numbers in the *Sequence of Scores* will sometimes contribute to the interpretation of individual records, and they are extremely useful for research purposes.

The scoring from the protocol of a 26-year-old female is shown as Table 10.1. The data from this record are also used to illustrate the preparation of the *Structural Summary*, which is shown as Table 10.3.

THE STRUCTURAL SUMMARY— UPPER SECTION

The preparation of the *Structural Summary* begins with the entry of frequency tallies for each of the codes in the upper section of the *Structural Summary Blank*, as shown in Table 10.3.

Table 10.1 Sequence of Scores.

Card	No.	Loc.	No.	Determinant(s)	(2)	Content(s)	Pop	Z	Special Scores
I	1	DSO	4	Fo		A		3.5	
	2	Wo	1	Fo		A		1.0	MOR, INC
	3	Wo	1	FMpo		A	P	1.0	
II	4	DSO	6	FC'o		Xy			
	5	Do	3	FC.FYo		A			
	6	D+	6	FCo		An, Bl		3.0	
III	7	Do	3	Fo		Cg			
	8	D+	1	Mpo	2	H, Hh	P	3.0	GHR
	9	D+	9	Ma.CF.mao	2	H, Cg, Art	P	4.0	COP, GHR
IV	10	W+	1	Mp.FV.FT+		(H), Bt	P	4.0	GHR
V	11	Wo	1	Fo		A	P	1.0	INC
	12	Wo	1	FYo		A, Sc		1.0	PER, MOR, DR
VI	13	W+	1	Fr.FV.FY+		Sc, Na		2.5	
VII	14	Dv	4	ma.YFo		Na			
	15	Dd+	99	Mp.FC'.YFu	2	H, Cl, Cg, Id		1.0	PER, GHR
	16	Do	3	Fo	2	Ad, Cl			INC
VIII	17	WS+	1	FMa.CFu	2	A, Ge	P	4.5	FAB, DV
IX	18	DdSo	99	FCu		Na			
	19	DdS+	99	mp.CFu		Hh, Na		4.5	
	20	Do	11	Fo		An			
X	21	Do	7	FC'o	2	Ad			MOR
	22	D+	1	FMp.FCo	2	A, Bt	P	4.0	FAB
	23	Do	4	CFo	2	A			PER, ALOG, DR
	24	Do	2	FMAu	2	A			
	25	D+	8	Mau	2	(A)		4.0	AG, PHR

Table 10.2 Best Weighted ZSum Prediction When Zf Is Known.

Zf	Zest	Zf	Zest	Zf	Zest	Zf	Zest
1	—	14	45.5	26	88.0	39	134.0
2	2.5	15	49.0	27	91.5	40	137.5
3	6.0	16	52.5	28	95.0	41	141.0
4	10.0	17	56.0	29	98.5	42	144.5
5	13.5	18	59.5	30	102.5	43	148.0
6	17.0	19	63.0	31	105.5	44	152.0
7	20.5	20	66.5	32	109.5	45	155.5
8	24.0	21	70.0	33	112.5	46	159.0
9	27.5	22	73.5	34	116.5	47	162.5
10	31.0	23	77.0	35	120.0	48	166.0
11	34.5	24	81.0	36	123.5	49	169.5
12	38.0	25	84.5	37	127.0	50	173.0
13	41.5	38	130.5				

Table 10.3 Structural Summary.

Location Features	Determinants		Contents	Approach	
	Blends	Single			
Zf = 15	FC.FY	M = 2	H = 3	I	DS.W.W
ZSum = 42.0	M.CF.m	FM = 2	(H) = 1	II	DS.D.D
ZEst = 49.0	M.FV.FT	m = 0	Hd = 0	III	D.D.D
	Fr.FV.FY	FC = 2	(Hd) = 0	IV	W
W = 7	m.YF	CF = 1	Hx = 0	V	W.W
D = 15	M.FC'.YF	C = 0	A = 10	VI	W
W+D=22	FM.Cf	Cn = 0	(A) = 1	VII	D.Dd.D
Dd = 3	m.CF	FC' = 2	Ad = 2	VIII	WS
S = 5	FM.FC	C'F = 0	(Ad) = 0	IX	DdS.DdS.D
		C' = 0	An = 2	X	D.D.D.D.D
		FT = 0	Art = 1		
		TF = 0	Ay = 0		Special Scores
		T = 0	Bt = 2		Lv1 Lv2
DQ		FV = 0	Cg = 3	DV	=1x1 0x2
+ = 10		VF = 0	Cl = 2	INC	=3x2 0x4
o = 14		V = 0	Ex = 0	DR	=2x3 0x6
v/+ = 0		FY = 1	Fd = 0	FAB	=2x4 0x7
v = 1		YF = 0	Fi = 0	ALOG	=1x5
		Y = 0	Ge = 1	CON	=0x7
		Fr = 0	Hh = 2	Raw Sum6	= 9
		rF = 0	Ls = 0	Wgtd Sum6	=26
		FD = 0	Na = 4	AB	=0
		F = 6	Sc = 2	AG	=1
		(2) = 10	Sx = 0	COP	=1
			Xy = 1	CP	=0
			Id = 1		
					GHR = 4
					PHR = 1
					MOR = 3
					PER = 3
					PSV = 0
Protocol 192 Ratios, Percentages, and Derivations					
R = 25	L = 0.32		FC:CF+C = 4:4	COP = 1	AG = 1
			Pure C = 0	GHR:PHR = 4:1	
EB = 5:6.0	EA = 11.0	EBPer = N/A	SumC':WSumC = 3:6.0	a:p = 6:6	
eb = 7:11	es = 18	D = -2	Afr = 0.56	Food = 0	
	Adj es = 12	Adj D = 0	S = 5	SumT = 1	
			Blends:R = 9:25	Human Cont = 4	
FM = 4	SumC' = 3	SumT = 1	CP = 0	Pure H = 3	
m = 3	SumV = 2	SumY = 5		PER = 3	
				Isol Indx = 0.60	
a:p = 6:6	Sum6 = 9	XA% = 1.00	Zf = 15	3r + (2)/R = 0.52	
Ma:Mp = 2:3	Lv2 = 0	WDA% = 1.00	W:D:Dd = 7:15:3	Fr + rF = 1	
2AB + Art + Ay = 1	WSum6 = 26	X-% = 0.00	W:M = 7:5	SumV = 2	
Mor = 3	M- = 0	S- = 0	Zd = -7.0	FD = 0	
	Mnone = 0	P = 7	PSV = 0	An + Xy = 3	
		X+% = 0.76	DQ+ = 10	MOR = 3	
		Xu% = 0.24	DQv = 1	H:(H)+Hd+(Hd) = 3:1	
PTI = 1	DEPI = 5*	CDI = 2	S-CON = 5	HVI = No	OBS = No

Location Features

There are three elements regarding location for which entries are required, (1) Organizational Activity, (2) Location Codes, and (3) Developmental Quality.

Organizational Activity

Three entries are required at the top of the *Summary* for organizational activity. The first, *Zf* (*Z* frequency) is the number of times a *Z* response has occurred in the record. The second, *ZSum*, is for the summation of the weighted *Z* scores that have been assigned. The third is the estimated weighted *ZSum* (*Zest*), which is derived from a Table of Estimates shown as Table 10.2. The *Zest* value is the one that corresponds to the *Zf* for the protocol. In the sample record the *Zf* is 15, thus the *Zest* is 49.0.

Location Codes

Each of the three basic location codes are tallied separately. Two other entries are required. One is for the total of *W + D* responses, and the second is for the frequency of the *S* responses. The *S* frequency is *not* subtracted from the tallies for the three basic location codes of *W*, *D*, or *Dd*.

Developmental Quality

Frequencies are also entered for each of the developmental quality codes, disregarding the type of location used.

Determinants

Each of the determinants is tallied separately, *except* when occurring in a blend. Each blend is entered in the separate section under *Blends*, and the determinants in the *Blends* section *are not* counted again when entering the frequencies for the single determinants in the column headed, *Single*.

Form Quality

There are three distributions to be entered for form quality. The first, shown by the heading

FQx (*Form Quality Extended*), pertains to *all* of the responses in the record. It provides spaces to enter the frequencies for each of the four types of form quality, plus one for the frequency of responses in which no form quality has been coded.

The second is headed *MQual* (*Human Movement FQ*). It is for the distribution of the types of form quality for all of the Human Movement responses.

The third is headed *W + D* (*Common Area FQ*). It is for recording the *FQ* frequencies of all of the responses that have been given to *W* and *D* areas.

Contents

The column headed *Contents* includes each of the 27 categories. The entry for each item represents the total number of times that the content has been given in the record, regardless of whether the content is primary or secondary in the coding for the response.

Approach Summary

The upper right section of the Structural Summary contains space to record the *location approach* used by the subject. This refers to the sequence of location selections used by the client when responding to each card. For instance, in the sample record, the person gave three responses to Card I. The first was a Common Detail area and included the use of white space (*DS*), the second was a Whole response (*W*), and the third was also a Whole response (*W*). Thus, the entry for Card I is *DS, W, W*.

Special Scores

The last set of frequencies to be entered are those for each of the 15 Special Scores. Two calculations are also required. The first is the *Raw Sum* of the first six Special Scores (*Raw Sum6*). This is the total for all Level 1 and Level 2 scores for *DV*, *INCOM*, *DR*, and *FABCOM*, plus the *ALOG* and *CONTAM* entries.

The second is the *Weighted Sum* for those same six special scores (*WSUM6*). Each of the six Special Scores receives a weight:

$$\begin{aligned} WSUM6 = & (1) \times DV + (2) \times DV2 + (2) \times INCOM \\ & + (4) \times INCOM2 + (3) \times DR \\ & + (6) \times DR2 + (4) \times FABCOM \\ & + (7) \times FABCOM2 + (5) \times ALOG \\ & + (7) \times CONTAM \end{aligned}$$

THE STRUCTURAL SUMMARY— LOWER SECTION

Once the data have been organized into frequencies, the *Structural Summary* can be completed by doing the various calculations that are required for the entries in the lower section. It is divided into seven data blocks. Some items appear in more than one block because they relate to more than one characteristic. At the very bottom of the lower section, there are six special indices, the *PTI*, *DEPI*, *CDI*, *S-CON*, *HVI*, and *OBS* which are completed last, using the *Constellations Worksheet*, that is shown for the sample protocol as Table 10.4 at the end of this chapter.

The Core Section

The Core Section is at the upper left of the lower section of the *Structural Summary*. It contains 16 entries. Seven entries are frequency data. They include *R* (total number of responses), and the total number for each of the determinants *FM*, *m*, *SumC'*, *SumT*, *SumV*, and *SumY*. The latter four include all variations, so that *SumC'* includes *FC'*, *C'F*, and *C'*; *SumT* includes *FT*, *TF*, and *T*; and so on.

The other nine entries are ratios and derivations. They are:

- **Lambda (L).** The second entry is for *Lambda (L)*—a ratio that compares the frequency of pure *F* responses to all other answers in the record. It relates to issues of economizing the use of resources. It is calculated as:

$$L = \frac{\left(\begin{array}{c} \text{Number of Responses having} \\ \text{only Pure } F \text{ determinants} \end{array} \right)}{R - F \text{ (Total } R \text{ minus Pure Form answers)}}$$

In the sample record, out of 25 responses, there are 6 Pure *F* responses and 19 answers with other determinants, which yields a $L = (6/19) = 0.32$.

- **Erlebnistypus (EB).** This is a relationship between two major variables, human movement (*M*), and the weighted sum of the chromatic color responses. It is entered as *Sum M: Weighted Sum Color*. The Weighted Sum Color (*WSumC*) is obtained by multiplying each type of chromatic color response by a weight. Color naming responses, *Ch*, are not included in the *WSumC*.

$$WSumC = (0.5) \times FC + (1.0) \times CF + (1.5) \times C.$$

The sample protocol contains 5 *M* responses, 4 *FC* responses, 4 *CF* answers, and 0 *C* responses. Therefore, $WSumC = (0.5) \times (4) + (1.0) \times (4) + (1.5) \times (0) = 6.0$, yielding an *EB* of 5:6.0.

- **Experience Actual (EA).** This is a derivation that relates to available resources. It is obtained by adding the two sides of the *EB* together, that is, *Sum M*+*WSumC*. In the sample protocol it is $5 + 6.0 = 11.0$.
- **EB Pervasive (EBPer).** This is a ratio concerning the dominance of an *EB* style in decision making activity. *EBPer* is calculated only when a marked style is indicated by the *EB*. This is determined by three criteria:
 1. The value for *EA* must be 4.0 or greater.
 2. The value for *Lambda* must be less than 1.0.
 3. When the value of *EA* falls between 4.0 and 10.0, one side of the *EB* must be at least two points greater than the other side. If the value of *EA* is more than 10.0, one side of the *EB* must be at least 2.5 points greater than the other.

When all three criteria are met, *EBPer* is calculated by dividing the larger number in the *EB* by the smaller number. In the sample protocol, the *EA* is 11.0, and *Lambda* is 0.32. The first two criteria are met. However, the *EB* is 5 : 6, failing to meet the criterion that one side of the *EB* must be at least 2.5 points greater than the other when *EA* is greater than 10. Thus, for this protocol, *EBPer* is not applicable (*N/A*). Had the *EB* been 4:7, the difference between the two values would be 3.0, and requiring that the larger *EB* value (7) be divided by the smaller (4.0), which would result in an *EBPer* of 1.8.

- **Experience Base (eb).** This is a relationship comparing all nonhuman movement determinants (*FM* and *m*) to the shading and achromatic color determinants. It provides information concerning stimulus demands experienced by the subject. It is entered as Sum *FM+m*:Sum of *SumC'* + *SumT* + *SumY* + *SumV*. In the sample protocol, as indicated by the entries made just below the boxed area, the record contains 4 *FM* and 3 *m* determinants, plus 3 achromatic color determinants (*SumC'*), 1 texture determinant (*SumT*), 2 vista answers (*SumV*), and 5 diffuse shading determinants (*SumY*). Thus, the *eb* is 7:11.
- **Experienced Stimulation (es).** This is a deprivation obtained from the data in the *eb*. It relates to current stimulus demands. It is obtained by adding the two sides of the *eb* together, that is, the sum of *FM+m* + *SumC'* + *SumT* + *SumY* + *SumV*. In the sample record it is 7 + 11, yielding *es* = 18.
- **The D Score (D).** The *D Score* provides information concerning the relationship between *EA* and *es*. It relates to stress tolerance and elements of control. It is obtained by first calculating the raw score difference between the two variables, that is, *EA - es*, and including the appropriate sign. The raw difference score is then converted into a scaled difference score, based on standard deviations, in which each *SD* has been rounded to equal 2.5.

If the difference score for *EA - es* falls between +2.5 and -2.5, there is no significant

Table 10.4 Ea-Es D Score Conversion Table.

Value of (EA-es)	D Score
+13.0 to +15.0	+5
+10.5 to +12.5	+4
+8.0 to +10.0	+3
+5.5 to +7.5	+2
+3.0 to +5.0	+1
-2.5 to +2.5	0
-3.0 to -5.0	-1
-5.5 to -7.5	-2
-8.0 to -10.0	-3
-10.5 to -12.5	-4
-13.0 to -15.0	-5

difference between the two values and the *D Score* is 0. If the difference score for *EA - es* is greater than +2.5, the *D Score* will increase by units of +1 for each 2.5 difference score points. If the difference score for *EA - es* yields a value of less than -2.5, the *D score* will decrease by units of -1 for each 2.5 points. Table 10.4 is the Conversion Table for obtaining the *D score*.

In the sample protocol, the difference, *EA - es* is 11.0 - 3 = +8.0, yielding a *D Score* of +3.

- **Adjusted es (Adj es).** Whereas the *D Score* provides information concerning stress tolerance and available resources, it is important to determine if the score has been influenced by situational elements. This requires subtracting from the *es* most of the elements that are related to situational phenomena. The tactic is simple. All but 1 *m* and 1 *SumY* are subtracted from the *es* to create the *Adj es*. In the sample record there are 3 *m* determinants and 5 *Y* determinants. Therefore, it is necessary to subtract 2 *m* values and 4 *Y* values from the *es* of 18. This yields an *Adj es* value of 12. It is used in calculating the *Adjusted D Score*.
- **Adjusted D Score (Adj D).** The *Adj D* is obtained by using the formula *EA - Adj es*. The result is applied against the *D Score Conversion Table*. In the sample record, the *EA* is 11.0 and the *Adj es* is 12, rendering a difference of -1, and yielding an *Adj D* of 0.

THE IDEATION SECTION

This section contains nine entries. Five of the nine are frequency data that are transcribed from the upper section of the *Structural Summary*. They are the frequencies for *MOR*, *Sum6*, *Level 2* Special Scores, *M-* and *M* responses that contain no form. A sixth entry (*WSum6*) has already been calculated and should also be transcribed from the upper portion of the *Structural Summary*. The remaining three items consist of two ratios and one index. They are:

1. **Active:Passive Ratio (a:p).** This relationship concerns flexibility in ideation and attitudes. It is entered as the total number of *Active* movement answers (*Ma+FMa+ma*) on the left and the total number of *Passive* movement responses (*Mp+FMp+mp*) on the right. Movement determinants with *a-p* superscripts are added to both sides. The sample record shows an *a:p* of 6:6.
2. **M Active:Passive Ratio (Ma:Mp).** This variable concerns some characteristics of thinking. It includes *only* human movement responses with total *Active* entered on the left and total *Passive* entered on the right. *M^{a-p}* answers are added to both sides. The sample record has an *Ma:Mp* of 2:3.
3. **The Intellectualization Index—2AB + (Art + Ay).** This index includes the Special Score *AB* (Abstract) and the contents *Art* and Anthropology (*Ay*). It is calculated as two times the number of *AB* answers plus the number of *Art* and *Ay* contents. In the sample record there are no *AB* or *Ay* responses, and 1 *Art* content, yielding an Index value of 1.
1. **Form-Color Ratio (FC:CF + C).** This ratio relates to the modulation of affect. It is entered as shown, with the total number of *FC* determinants on the left and the sum of the *CF + C + Cn* determinants on the right. Each of the chromatic color determinants are weighed equally in this ratio, as contrasted with the *WSumC* used in the *EB* and *EA* in which *Cn* responses are not included. The sample protocol contains 4 *FC* responses, 4 *CF* responses, and 0 Pure *C* answers. Thus, the ratio is 4:4.
2. **Constriction Ratio (SumC':WSumC).** This ratio relates to excessive internalization of affect. It is entered with the total number of *C'* determinants (*SumC'*) on the left and the weighted sum of chromatic color (*WSumC*) on the right. The sample protocol has 3 *C'* responses and a *WSumC* of 6.0. Thus, the ratio is 3:6.0.
3. **Affective Ratio (Afr).** This is a ratio that compares the number of answers to the last three cards with those given to the first seven cards. It relates to interest in emotional stimulation. It is calculated as:

$$Afr = \frac{\text{Number responses to cards VIII + IX + X}}{\text{Number responses to cards I + II + III + IV + V + VI + VII}}$$

In the sample record, the subject gave 9 responses to the last three cards and 16 responses to the first seven cards, yielding an $Afr = (9/16) = 0.56$.

4. **Complexity Ratio (Blends:R).** This relationship is *not* reduced to a ratio. Instead, it is entered as indicated, with the total number of blends on the left and the number of responses on the right. In the sample record, there are nine blends yielding a ratio of 9:25.

THE AFFECT SECTION

This section includes seven entries. Three are frequencies, and the data for those items (Pure *C*, *S*, and *CP*) are transcribed from the upper portion of the *Structural Summary*. The remaining four entries are the ratios described next:

THE MEDIATION SECTION

This section contains seven entries. Two are frequency data that must be calculated directly from

the *Sequence of Scores*. One is for the number of Popular (*P*) responses. The second is the number of *minus* answers in which white space (*S*) has been used as part or all of the location. The remaining five items in this section are percentages:

1. Form Appropriate Extended (*XA* + %).

This variable concerns the proportion of responses in which there is an appropriate use of form features. It is calculated as:

$$XA\% = \frac{\text{Sum of responses that have an } FQ \text{ coding of +, o, or u}}{R}$$

The sample record contains 25 responses of which two are *plus*, 17 are *ordinary*, and 6 are *unusual*. This calculates as 25 divided by 25, which yields an *XA*% of 1.00.

2. Form Appropriate—Common Areas (*WDA* %).

This variable concerns the proportion of responses given to *W* and *D* areas in which there is an appropriate use of form features. It is calculated as:

$$WDA\% = \frac{\text{Sum of } W + D \text{ responses with an } FQ \text{ coding of +, o, or u}}{\text{Sum of } W + D}$$

The sample record contains 22 answers with *W* or *D* locations. All 22 of the *W* and *D* responses have *FQ* codings of *o* or *u*. This calculates as 22 divided by 22, which yields a *WDA*% of 1.00.

3. Distorted Form (*X* - %). This variable concerns the proportion of answers in which form use is not commensurate with the blot features. It is calculated as:

$$X-\% = \frac{\text{Sum } FQx-}{R}$$

The sample record of 25 responses includes no *minus* answers, yielding an *X* - % of 0.00.

4. Conventional Form Use (*X* + %). This variable concerns the extent to which the appropriate use of form features has included common object definitions. It is calculated as:

$$X+\% = \frac{\text{Sum } FQx+ \text{ and } o}{R}$$

In the sample record, there are 2 + answers and 17 *ordinary* responses, yielding an *X* + % of 0.76.

5. Unusual Form Use (*Xu* %). This variable concerns the extent to which the appropriate use of form features has included uncommon object definitions. It is calculated as:

$$Xu\% = \frac{\text{Sum } FQxu}{R}$$

In the sample record there are 6 *unusual* responses, yielding an *Xu*% of 0.24.

THE PROCESSING SECTION

This section contains seven entries, four of which, (*Zf*, *PSV*, *DQ+*, and *DQv*) are frequency data to be transcribed from the upper portion of the *Structural Summary*. Two of the remaining three express relationships, and the third is a difference score.

1. Economy Index (*W*:*D*:*Dd*). This relationship is entered as shown, with the total number of *W* responses on the left, the total number of *D* responses in the center, and the total number of *Dd* answers at the right.

2. Aspirational Ratio (*W*:*M*). This relationship is not reduced to a ratio but, instead, entered as indicated with the total number of *W* responses on the left and the total number of *M* answers at the right.

3. Processing Efficiency (*Zd*). The *Zd* is a difference score obtained by the formula *ZSum* - *Zest*, with the appropriate sign recorded. In the sample protocol, the *ZSum* = 42.0 and the *Zest* = 49.0, yielding a *Zd* score of - 7.0.

THE INTERPERSONAL SECTION

This section contains 10 entries. Five of the 10 are frequency data transcribed directly from the upper portion of the *Structural Summary* (sum of *COP* responses, sum of *AG* responses, sum of *Food* contents, sum of Pure *H* answers, and the number of *PER* Special Scores).

A sixth item displays a relationship (*GHR:PHR*) using frequency data from the upper portion of the *Structural Summary*, with the sum of *GHR* entered on the left and the sum of *PHR* entered on the right. A seventh item, *SumT*, is transcribed from the Core Section, and an eighth, *a:p* is transcribed from the Ideation Section. The remaining two items require some calculations.

1. **Interpersonal Interest (Human Cont).** This entry provides information about interest in people. The entry is calculated as:

Human Cont = The sum $H + (H) + Hd + (Hd)$
[*Hx* is not included]

In the sample protocol there are 3 *H*, 1 (*H*), and no *Hd* or (*Hd*) contents. Thus, *Human Cont* = 4.

2. **Isolation Index (Isolate/R).** This variable is related to social isolation. It involves the contents in five categories (Botany, Clouds, Geography, Landscape, and Nature), with the raw sum for two categories being doubled. It is calculated as:

$$\text{Isolate/R} = \frac{Bt + 2Cl + Ge + Ls + 2Na}{R}$$

The sample record contains 2 *Bt*, 2 *Cl*, 1 *Ge*, 0 *Ls*, and 4 *Na*. Therefore, the weighted sum is $2 + 4 + 1 + 8 = 15$ which, when divided by the *R* of 15, yields an Index value of 0.60.

THE SELF-PERCEPTION SECTION

This section contains seven entries, four of which are frequencies, or the sum of frequencies from the upper portion of the *Structural Summary*.

They include the sum $Fr + rF$, the number of Form Dimension (*FD*) responses, the number of Special Scores for morbid content (*MOR*), and the sum of Anatomy (*An*) and X-ray (*Xy*) contents. The fifth entry, *SumV*, is transcribed from the Core Section.

The sixth entry is a ratio $(H:(H) + Hd + (Hd))$ in which the number of Pure *H* contents is entered on the left, and the sum of $(H) + Hd + (Hd)$ is entered on the right. In the sample record, there are 3 responses that contain a Pure *H* content and 1 answer that is a (*H*). Thus, the ratio is expressed as 3:1.

The seventh item requires some calculation:

1. **Egocentricity Index ($3r + (2)/R$).** This index relates to self-esteem. It represents the proportion of reflection and pair responses in the total record, with each reflection determinant weighed as being equal to three pair responses. It is calculated as:

$$3r + (2)/R = \frac{3x(Fr + rF) + \text{Sum } (2)}{R}$$

The sample record contains 1 reflection answer and 10 pair responses leading to an Egocentricity Index = $[(3) \times 1 + 10]/(25) = 0.52$.

SPECIAL INDICES

At the bottom of the *Structural Summary* there are six special indices, the Perceptual-Thinking Index (*PTI*), the Depression Index (*DEPI*), the Coping Deficit Index (*CDI*), the Suicide Constellation (*S-CON*), the Hypervigilance Index (*HVI*), and the Obsessive Style Index (*OBS*).

The variables included for each are shown on the *Constellations Worksheet* (see Table 10.5) with boxes provided to check each item that is positive. The total number of positive variables should be entered at the bottom of the *Structural Summary* for the *PTI*, *DEPI*, *CDI*, and *S-CON*.

Table 10.5 Constellations Worksheet

S-Constellation (Suicide Potential):	PTI (Perceptual-Thinking Index):
<input type="checkbox"/> Check Positive if 8 or more conditions are true: <i>Note: Applicable only for subjects over 14 years old.</i>	
<input type="checkbox"/> $FV + VF + V + FD > 2$ <input checked="" type="checkbox"/> Color-Shading Blends > 0 <input checked="" type="checkbox"/> $3r + (2)/R < .31$ or $> .44$ <input type="checkbox"/> $MOR > 3$ <input checked="" type="checkbox"/> $Zd > +3.5$ or $Zd < -3.5$ <input checked="" type="checkbox"/> $es > EA$ <input type="checkbox"/> $CF + C > FC$ <input type="checkbox"/> $X + \% < .70$ <input checked="" type="checkbox"/> $S > 3$ <input type="checkbox"/> $P < 3$ or $P > 8$ <input type="checkbox"/> Pure $H < 2$ <input type="checkbox"/> $R < 17$	<input type="checkbox"/> $XA\% < .70$ and $WDA\% < .75$ <input type="checkbox"/> $X-\% > .29$ <input type="checkbox"/> $LVL2 > 2$ and $FAB2 > 0$ <input checked="" type="checkbox"/> $R < 17$ and $WSUM6 > 12$ OR $R > 16$ and $WSUM6 > 16$ <input type="checkbox"/> $M \rightarrow 1$ OR $X-\% > .40$ <u>1</u> Sum PTI
<hr/>	
DEPI (Depression Index):	CDI (Coping Deficit Index):
<input checked="" type="checkbox"/> Check Positive if 5 or more conditions are true: <input checked="" type="checkbox"/> $FV + VF + V > 0$ OR $(FD > 2)$ <input checked="" type="checkbox"/> (Col-Shd Blends > 0) OR $(S > 2)$ <input type="checkbox"/> $(3r + (2)/R > .44$ and $Fr + rF = 0$) OR $(3r + (2)/R < .33)$ <input type="checkbox"/> $(Afr < .46)$ OR (Blends < 4) <input checked="" type="checkbox"/> SumShading $> FM + m$ OR $(SumC' > 2)$ <input checked="" type="checkbox"/> $(MOR > 2)$ OR $(2 \times AB + Art + AY > 3)$ <input checked="" type="checkbox"/> $Cop < C2$ OR $([Bt + 2 \times Cl + Ge + Ls + 2 \times Na]/R > .24)$	<input type="checkbox"/> Check Positive if 4 or 5 conditions are true: <input type="checkbox"/> $(EA < 6)$ OR $(AdjD < 0)$ <input checked="" type="checkbox"/> $(COP < 2)$ and $(AG < 2)$ <input type="checkbox"/> (Weighted Sum $C < 2.5$) OR $*(Afr < .46)$ <input type="checkbox"/> (Passive $>$ Active + 1) OR (Pure $H < 2$) <input checked="" type="checkbox"/> $(Sum T > 1)$ OR (Isolate/ $R > .24$) OR (Food > 0)
<hr/>	
HVI (Hypervigilance Index):	OBS (Obsessive Style Index):
<input type="checkbox"/> Check Positive if condition 1 is true and at least 4 of the others are true: <input type="checkbox"/> (1) $FT + TF + T = 0$ <hr/> <input checked="" type="checkbox"/> (2) $Zf > 12$ <input type="checkbox"/> (3) $Zd > +3.5$ <input checked="" type="checkbox"/> (4) $S > 3$ <input type="checkbox"/> (5) $H + (H) + Hd + (Hd) > 6$ <input type="checkbox"/> (6) $(H) + (A) + (Hd) + (Ad) > 3$ <input type="checkbox"/> (7) $H + A: Hd + Ad < 4:1$ <input type="checkbox"/> (8) $Cg > 3$	<input type="checkbox"/> (1) $Dd > 3$ <input checked="" type="checkbox"/> (2) $Zf > 12$ <input type="checkbox"/> (3) $Zd > +3.0$ <input type="checkbox"/> (4) $Populars > 7$ <input checked="" type="checkbox"/> (5) $FQ+ > 1$ <hr/> <input type="checkbox"/> Check Positive if 1 or more is true: <input type="checkbox"/> Conditions 1 to 5 are all true <input type="checkbox"/> 2 or more of 1 to 4 are true AND $FQ+ > 3$ <input type="checkbox"/> 3 or more of 1 to 5 are true AND $X+\% > .89$ <input type="checkbox"/> $FQ+ > 3$ AND $X+\% > .89$

*Should be adjusted for younger clients.

Table 10.6 Age Adjustments for Variables in Three Indices.

Age	Age Adjustments for Egocentricity Index		Age Adjustments for WSum6	
	Significant if $3r+(2)/R$ is less than	Significant if $3r+(2)/R$ is more than		
5	.55	.83	If R is 17 or more:	
6	.52	.82	Ages 5 to 7:	WSum6 > 20
7	.52	.77	Ages 8 to 10:	WSum6 > 19
8	.48	.74	Ages 11 to 13:	WSum6 > 18
9	.45	.69	If R is less than 17	
10	.45	.63	Ages 5 to 7:	WSum6 > 16
11	.45	.58	Ages 8 to 10:	WSum6 > 15
12	.38	.58	Ages 11 to 13:	WSum6 > 14
13	.38	.56	Age Adjustments for the Affective Ratio	
14	.37	.54	Ages 5 & 6:	Afr < .57
15	.33	.50	Ages 7 to 9:	Afr < .55
16	.33	.48	Ages 10 to 13:	Afr < .53

Notations of *Yes* or *No* should be entered for the *HVI* and the *OBS*.

When working with the protocols of younger people, it is important to note that there are some age adjusted cutoff values for four variables. One (*WSum6*) appears in the *PTI*. A second ($3r + (2)/R$) appears in the *DEPI*, and the third, (*Afr*)

is in both the *DEPI* and the *CDI*. Each is noted on the *Constellations Worksheet* which is shown as Table 10.5. Items marked by an asterisk (*) note that the cutoff values to be applied are different for younger clients. Those adjustments are shown in Table 10.6 by age groups.

PART THREE

The Nature of the Test

CHAPTER 11

The Response Process

Anyone using the Rorschach should be aware of how responses are formulated, and how those that are delivered create a basis from which information about the psychology of a person can be gleaned. This information is important because it provides the framework for understanding interpretive principles and procedures. To the uninformed, it may seem incredulous that the responses to 10 inkblot-like figures can provide much information about an individual. It is an issue that has often provided grist for the mill of the skeptic and, unfortunately, some explanations about how the test works have only increased that skepticism.

This skepticism probably increased most when the projective movement reached its zenith and the Rorschach was identified as the centerpiece among "projective techniques." During that time, major emphasis was on content analysis, and the nature of the test was usually conceptualized in terms of the projective process. Some attempted a direct symbolic interpretation of specific kinds of contents (Phillips & Smith, 1953). Others sought to equate the blot stimuli with universal symbolic meanings, generating faulty notions about a father card, mother card, sex card, interpersonal card, and so on (Halpern, 1953; Meer & Singer, 1950; Pascal, Ruesch, Devine, & Suttell, 1950). Although emphasis on the projective process served to enhance the usefulness of the test, it also detracted from a broader understanding of the nature of the test, and tended to detract from research on Rorschach's original thinking about the method.

RORSCHACH'S CONCEPT OF THE METHOD

The process of the test intrigued Rorschach, and he did formulate some hypotheses related to the response operations. He postulated that responses are formed through an integration of memory traces with the visual images created by the stimulus figure. He argued that the effort to match the stimulus images with existing engrams is *consciously realized*. In other words, the person is aware that the blot is not identical to objects stored in memory. Consequently, the method requires a willingness by the individual to identify the blot, or blot area, as being something that it is not, but to which it has some similarity.

Rorschach described this as an associational process and postulated that differences in "thresholds" exist among people for their ability to assimilate or integrate the stimulus sensation with the existing engrams. He believed that the differences in threshold were the main cause for the broad array of responses that occurs. It was on this premise that he rejected the notion that unconscious elements might be influential in forming a response. He viewed the response process as one of perception and/or apperception.

Rorschach also argued, quite persuasively, that imagination had little or nothing to do with the *basic* process of the test, but that it could manifest in embellishments to responses. It seems likely that if Rorschach had lived long enough to consider Murray's concept of projection (1938),

or Frank's (1939) formulation of the *Projective Hypothesis*, he would have acknowledged them as relevant to decisions leading to the responses. But, it is equally likely that he would have disavowed the concept of projection as representing a major component in the response process.

There is no question that the nature of the test, and of the response process, were sorely neglected areas of research for several decades following Rorschach's death. This neglect probably contributed substantially to the broad divergence that occurred among those attempting to develop the test. Interestingly, the accumulation of research findings lends support for most of Rorschach's postulates about the response process, although it appears to be considerably more complex than he conceived. Numerous operations occur before a response is actually delivered, and they occur within a brief time frame that few recognized during the early days of the development of the test.

THE RORSCHACH AS A DECISION-MAKING TASK

Rorschach was correct in his assumption that the response is formulated with an awareness that the blot is not identical to existing memory traces. Usually, the person has some awareness of this well before the first blot is exposed, by reason of the introduction of the task by the examiner. Cattell (1951), in his effort to describe the projective situation, probably best described the task of the person who is taking the Rorschach for the first time. He noted that the individual is required to identify something that is not actually there. According to Cattell, the task requires the person to "misperceive" the stimulus and through that misperception the person is encouraged to project something of himself or herself into the response.

Although Cattell may be correct in describing the projective situation, that description can be quite misleading when applied to the circumstances of the Rorschach, depending on whether the term *misperceive* is translated to mean how the stimulus is *translated*, or how the stimulus is

identified. This is a very important distinction, because the first implies that the person neglects the fact that the stimulus is an inkblot, whereas the second does not carry that implication. Rorschach believed that identification is one of the essential operations in the response. When he occasionally encountered persons who would concretely name the blots, he concluded that they were so seriously debilitated by reason of intellectual deficits, neurological impairment, or active psychosis, that their associational or integrative operations failed or decayed. Most professionals experienced with the Rorschach will have encountered individuals who are so impaired that they simply cannot respond to the task, or who are so detached from reality that they offer only hallucinatory type of responses when confronted with a blot (e.g., "My God, that sounds terrible, take it away."). But these are very rare instances. The overwhelming majority of those who take the test are fully aware that they are responding to an inkblot.

Examiners alert the adult by saying something such as, "Now we are going to do the inkblot test" or, as is common when testing young children, "Now we're going to look at some inkblots." But even if the introduction fails to include the use of the word *inkblot*, anyone would be hard-pressed to argue that the person is not aware of the fact. For instance, when the records of 500 patient and non-patient 5-, 6-, and 7-year-olds were reviewed, it was found that 207 gave comments or responses at the onset implying an awareness of the nature of the stimulus (Exner, 1980). These varied from, "It's an inkblot," or "It's a bunch of ink," to comments such as, "I know how to make these," or "We make prettier ones than this." In reality, those children gave the only truly correct answer. The stimulus is only an inkblot! But if that correct answer is delivered as the *first* response, it is not accepted. Instead, the examiner encourages some other identification, usually by saying, "Yes, I know. This is the inkblot test, but what might it be?"

In effect, the nature of the test situation forces the person to identify the figure as something it is

not. In some ways, the Rorschach is a *problem-solving* situation because there is a requirement to violate reality while maintaining one's personal integrity. The requirement to *misidentify* the stimulus provokes a complex set of psychological operations that ultimately culminates in decisions that lead to the delivery of answers.

DECISION CHOICES

The problem posed by the need to misidentify the stimulus would be simple for most people if only one alternative existed to the answer *inkblot*, but that is not the case. Many potential answers, consistent with the figure or parts of it, are available. Most people recognize this quickly after the figure is presented. Thus, one decision that the person must address while taking the test is which of the possible answers to verbalize, and which to discard.

For several decades after the test was published, most who used and researched it remained unaware of the substantial frequency of potentially reasonable answers that seem to be readily available to most people. There are probably several reasons for this, beginning with Rorschach's rather sketchy report of his experiment, and especially how the figures were created. His failure to emphasize the exquisite detailing of the figures created for the test, tended to reinforce the assumption that the figures are largely ambiguous, an assumption that has proven to be false (Exner, 1996). Nonetheless, some of the information that Rorschach reported about his investigation seemed to support the notion of ambiguity, and led those working to develop the test into a direction that, generally, ignored the stimulus properties of the figures.

Rorschach's observations led most of those involved in developing the test to form numerous interpretive hypotheses about short and long records, and about reaction time data.¹ The latter

became particularly widespread across the several systems. All of the systematizers, and many other researchers of the test, were quick to incorporate and expand Rorschach's concept of color shock, and also to formulate the notion of "gray-black shock." Both were postulated to equate with forms of anxiety, and were thought to represent neurotic characteristics (Beck, 1945; Klopfer & Kelley, 1942; Miale & Harrower-Erikson, 1940; Piotrowski, 1957). The implication was that the person was somehow traumatized by the blot features, and therefore struggled to form a response.

Another factor that tended to mislead most Rorschachers about the availability of potential answers has been the variety of published norms. Although they have varied depending on the system employed, the mean number of responses for adults has generally ranged from about 22 to 32 responses, with standard deviations ranging from five to eight (Beck, Beck, Levitt, & Molish, 1961; Exner, 1974, 1978). The data concerning children yielded even lower means for *R* (Ames, Learned, Metraux, & Walker, 1952; Ames, Metraux, & Walker, 1971; Beck et al., 1961; Exner, 1978; Exner & Weiner, 1982, 1995). These data suggest that the average person might find, or misidentify, two or three objects per blot, and few would have argued with the position that some people have difficulty formulating more than one answer to some of the blots. That conclusion has been afforded further support by hundreds of research studies in which the average number of responses given generally falls within the "normal" range.

people delay before giving answers, and suggested that those who gave several responses very quickly were probably "scattered" in their perception or ideation. He did not record reaction times for first responses, or total times per blot, but his notion of "scattered," plus another hypothesis concerning *color shock*, caused those who followed him to stress the faithful recording of those times. He used the term *color shock* to describe instances in which a person appeared to have considerable difficulty in forming a response to Card VIII, the first totally chromatic blot, although responding to the prior blots at a seemingly natural rate. He speculated that this apparent helplessness indicated some form of emotional suppression.

¹ Rorschach noted that most of his subjects gave between 15 and 30 responses, with depressed, "sullen or unobliging" subjects tending to give the fewest. He also noted that most

Another element contributing to the false notion that people formulate only a small number of answers per blot is the occasional instances in which people report that they cannot find or see anything other than the blot itself. Rorschach noted that some of his subjects did give "refusals" and suggested that this might result from an insurmountable blocking process. Klopfer and Kelley (1942) tended to agree with that postulate, but Beck (1945) argued that the rejection, or tendency to reject, might also be caused by problems in the perceptual organizing process, especially for the more difficult blots. This issue stimulated several studies on card difficulty, in which *reaction time* was used as an index of the difficulty or complexity of the stimuli (Dubrovner, VonLackum, & Jost, 1950; Matarazzo & Mensh, 1952; Meer, 1955; Rabin & Sanderson, 1947). Meer used a transformation of reaction times and form accuracy data from 12 studies to identify blot difficulty levels. Frequency data collected at the Rorschach Research Foundation suggest that most of his conclusions were correct concerning blot difficulty and/or complexity levels (Exner, Martin, & Cohen, 1983). However, findings such as those reported by Meer have only served to reinforce the flawed notion that people often have to struggle to find more than one object in each blot. Few practitioners, or researchers, have entertained the notion that most people form potential answers quickly and with relative ease, yet this fact appears to be supported by a series of studies.

THE RANGE OF POTENTIAL RESPONSES

An issue of concern during the development of the Comprehensive System was the impact of the examiner on the subject. A considerable literature had evolved, suggesting that some features of Rorschach responses can be altered under conditions that vary from the standard procedures. For example, different instructional sets, such as asking the person to find more things, find things moving, find more small objects, and so on, will

usually produce more of the kinds of responses for which the set is established (Coffin, 1941; Hutt, Gibby, Milton, & Pottharst, 1950; Abramson, 1951; Gibby, 1951).

Similarly, differences among the instructions used by the various Rorschach Systematizers produce substantial differences in the average length of a record (Klopfer = 23.9; Beck = 31.2; Hertz = 32.9; Piotrowski = 33.8; Rapaport = 36.4). Goetcheus (1967) used 16 examiners in a crossover design to study the differences between the Beck and Klopfer instructions. Each examiner administered eight tests using the Beck instructions, and eight using the Klopfer instructions. She found that the Beck instructions, which include, *Tell me everything you see*, and prompt for a second answer on the first five cards if only one response is given, produced records that, on average were six responses longer than those administered by the Klopfer format.

Several studies have also demonstrated that reinforcement, both verbal and nonverbal, can alter the frequencies of some kinds of responses (Wickes, 1956; Gross, 1959; Dinoff, 1960; Magnussen, 1960; Hersen & Greaves, 1971). As it turns out, all or most of these designs were tapping into the fact that most people generate many potential responses when confronted with the inkblot figure. Although some hints of this fact can be culled from some of the early research on the response process, no one did so. It was not until the 1970s that an awareness of this occurred somewhat serendipitously.

In a pilot investigation concerning the effects of reinforcement, two groups of 10 persons each, one of nonpatients and the second of outpatients, were instructed to give as many responses as they could, with a time limit of 60 seconds per blot (Exner & Armbruster, 1974). They were reinforced with a payment of 10 cents per response, paid immediately as each response was delivered. The nonpatient group averaged 104 answers to the 10 figures, with a range of 68 to 147 responses. The outpatients averaged 113 responses, with a range of 71 to 164 answers. These unexpectedly

large numbers raised several questions. First, to what extent did the reinforcement of the dimes alter the Rorschach response process? Second, to what extent did the exposure time of 60 seconds force people to rescan the field, thereby forming responses that might not have been formulated under the standard administration conditions. Third, did the reinforcement condition cause people to violate the use of accurate form more frequently than might be typical? Finally, because only one examiner was used in the pilot, would people give unusually large numbers of responses if several examiners were used? These questions led to the design of a more sophisticated study.

Exner, Armbruster, and Mittman (1978) used 12 experienced examiners to administer the test to five groups of 20 subjects each. Groups 1 and 2 consisted of 40 adult nonpatients, ranging in age from 20 to 41 years, subdivided into groups of 20 each by a median split of their distribution of scores on the K Scale of the MMPI. Group 3 consisted of 20 nonpatient children, ranging in age from 11 to 13 years. Group 4 was comprised of 20 inpatient depressives, aged 29 to 51 years, and Group 5 consisted of 20 inpatient schizophrenics, ranging in age from 24 to 42 years. None of the participants had been administered the Rorschach previously. The examiners were randomly assigned so that none tested more than four persons from a single group or more than 10 persons in all. All of the subjects had volunteered to participate in a *standardization* study concerning the inkblot test. The procedure followed the standardized method except that, prior to the beginning of the test, each person was told that he or she would have each blot for 60 seconds, and during that time, they should report as many things as they could find in the figure.

The responses were audio recorded, and a silent signal was entered on the tape at 15-second intervals. The examiners would rewind the tape after the responses to all 10 cards had been given, and play them back, one at a time, to inquire only for location. This permitted a review of the answers for the appropriate use of form. The average

number of responses given by each group is shown in Table 11.1, which also shows the average number given during the first 15-second interval, the second 15-second interval, and the last 30 seconds of exposure, plus data concerning the mean $X+\%$ and the mean frequency of Popular responses for each interval.

The data in Table 11.1 indicate that, in the experimental condition, all five groups gave two to four times the average of 22 answers usually obtained using the standard administration procedure. The data are even more intriguing when the average number of responses given during the first 15 seconds of blot exposure are examined. The three nonpatient groups all gave at least one-third more answers during that interval than is usually the case under the standard administration conditions, during which most people retain the cards for between 30 and 50 seconds. Both psychiatric groups gave at least as many answers during the first 15 seconds of exposure as they would be expected to give when the test is administered under standard conditions.

In addition to the finding that people can give many answers when instructed to do so, the data regarding the appropriate use of form are important. The $X+\%$ represents the proportion of common or conventional answers in a record, whereas Populars are the most common responses.² The means for the $X+\%$ indicate that each of the four nonschizophrenic groups were relatively consistent in giving common responses throughout the 60-second response period. They did not violate form accuracy markedly during any of the intervals of exposure to the blots. The data for Popular answers are also important in this context. All four of the nonschizophrenic groups averaged about eight Popular answers during the first 30 seconds of exposure, and about two-thirds of those occurred during the first 15 seconds of exposure to the figures. Thus, in a relatively brief exposure

² Although 13 responses currently are identified as Popular in the Comprehensive System, 17 answers were being coded as *P* at the time of the study.

Table 11.1 Average Number of Responses and Means for X+% and Popular Responses for Each of Five Groups during Four Intervals of Blot Exposure.

	First 15 Seconds		Second 15 Seconds		Second 30 Seconds		Total 60 Seconds	
	M	SD	M	SD	M	SD	M	SD
20 Nonpatients, upper half								
MMPI K scale								
R	30.4	4.1	31.2	5.8	21.7	4.1	83.3 ^a	9.2
X+%	88.9	11.1	81.4	9.9	89.3	9.6	85.1	10.2
P	5.2	2.1	3.5	1.3	3.2	1.1	10.8	2.8
20 Nonpatients, lower half								
MMPI K scale								
R	38.1	6.8	32.2	6.1	30.4	7.8	100.6	10.4
X+%	83.2	9.7	79.6	7.6	78.1	8.7	79.9	9.8
P	5.0	1.9	2.4	1.1	1.9	0.9	9.3	3.1
20 Nonpatient children								
R	38.9	7.1	30.7	4.3	24.5	8.3	94.1	9.8
X+%	84.6	7.8	80.1	8.5	84.1	7.8	83.3	8.1
P	5.3	1.8	2.4	1.1	2.0	1.1	9.7	2.2
20 Inpatient schizophrenics								
R	22.7 ^b	6.2	18.1 ^b	5.1	22.4	6.7	63.2 ^b	9.4
X+%	63.2 ^c	10.8	54.6 ^c	11.7	49.3 ^c	11.4	53.6	12.7
P	2.4 ^c	1.6	1.7	1.0	4.3 ^c	1.7	8.4	3.8
20 Inpatient depressives								
R	14.8 ^b	4.4	17.1 ^b	5.7	19.3	7.8	51.2 ^b	7.8
X+%	77.1	6.8	72.3	7.1	68.7	8.3	71.9	8.9
P	6.2	3.1	3.1	1.4	0.9	0.7	10.2	4.3

^a Significantly less than nonpatients in the lower half of the MMPI K Scale distribution, $p < .01$.^b Significantly different from nonpatient groups, $p < .01$.^c Significantly different from all other groups, $p < .01$.

time, the people in those four groups gave as many, or more, *P* answers than is customary when the test is given under standard conditions.

Most people, especially the nonpatients, began responding very quickly to each figure, usually within two or three seconds. There is a considerable variance for the average number of answers per card. The most solid figures, IV, V, VI, and IX, generally yielded the lowest average number of answers, whereas the more broken figures, III, VIII, and X, yielded the highest average number of answers.

The results of this study indicate that people can form multiple potential responses, generally congruent with the contours of the stimulus, in a relatively brief interval after the figure is exposed. The shortest nonpatient record contained 56 answers, and the shortest patient record (from a

depressed person) contained 34 responses. When only the number of answers given during the first 30 seconds is considered, the lowest number of answers from a nonpatient is 23, and the highest is 89. One depressed patient gave only 10 responses during the first 30 seconds, but 32 of the 40 psychiatric subjects gave at least 16 responses in that interval.

These findings differ markedly with most reference data that have been published for both patients and nonpatients. For instance, in the United States, the mean *R* for nonpatient adults is 22.3 responses, with the majority of records falling between 17 and 27 answers. The average *R* for samples collected in other countries is reasonably similar. For instance, data for nonpatient samples from several countries were reported in a symposium at the XVI Congress of the International

Rorschach Society (Erdberg & Shaffer, 1999). The samples involved included *N*'s ranging from 72 to 520 subjects. Some of the mean *R*'s reported are: Belgium = 22.7; Finland = 22.1; Denmark = 24.5; Japan = 26.3; Peru = 22.0; Portugal = 22.1; Spain = 24.8.

THE RESPONSE PROCESS

If people can easily form many potential answers to each figure, why is it they deliver far fewer than are available when the test is administered in the standardized manner?

Extrapolating from the Exner, Armbruster, and Mittman study, it seems reasonable to suggest that most people will give between 25% and 35% of the potential answers that they formulate. Any attempt to understand why this occurs must be framed in the context of the psychological activities that occur when forming and delivering responses.

In the very few seconds before a response is given, at least six mental operations occur. They are not discrete, but there may be some merit in considering them as three distinct phases of the response process.

- Phase I:
 1. Visual input and encoding of the stimulus and its parts.
 2. Classification (identification) of the stimulus and/or its parts and a rank ordering of the potential responses that are created.
- Phase II:
 3. Discarding potential answers that have low rankings.
 4. Discarding other potential answers through censorship.
- Phase III:
 5. Selection of some of the remaining responses by reason of traits or styles.
 6. Selection of some of the remaining responses because of state influences.

It is after these operations have occurred, that the first answer to a figure is given. The process is activated by the examiner's query, "What might this be?" In some ways, the process is similar to that which takes place if a person is shown a

photo of a chair and asked the same question. Although the instructions are brief, there is an implication that the task is to select a response that is commensurate with the *distal properties* of the stimulus field. Distal properties are the true components of a stimulus field. For instance, a chair has legs, a seat, and a back. It may have other features, but those elements, sometimes referred to as *critical distal bits* (Attneave, 1954), differentiate the chair from other objects that have similar distal features, such as a table or stool.

Critical distal bits are the most potent distal properties of a field. In effect, they create the parameters that limit the range of possible identifications of an object and constitute the elements that encourage specific identifications. For example, most people easily differentiate a baseball from an orange even though both are spherical and approximately the same size. The differentiation is made easy because both have critical distal properties that are constant to the object. The orange has a rough texture and a distinct coloring, whereas the baseball is white and has seams.

The task of reconciling the features of a Rorschach figure with true objects is made more complicated because the distal properties of the figure are not as precise and discrete as those of a chair or baseball. However, as noted earlier, Rorschach created the figures of the test in a way that ensured each contain numerous distinctive features that could easily be identified as being similar to objects stored in the memory traces of the individual. Thus, the figures fall far short of being completely or largely ambiguous. Each contains critical distal bits that create parameters limiting the array of translations that will be congruent with the distal properties of the field or parts of it (Exner, 1996). The presence of these discrete features facilitates the relatively rapid formation of potential answers.

THE INPUT PROCESS

It is difficult to appreciate the capacity of the human being to process information. The Rorschach figures are a form of visual stimulation

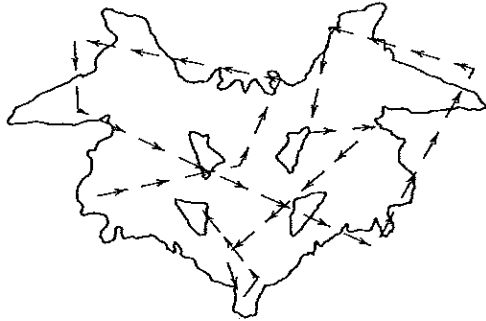


Figure 11.1 Visual scanning by a 19-year-old female during the first 500ms of blot exposure.

and the processing of visual information occurs quite rapidly. Although theories of visual processing remain open to discussion (Hochberg, 1981; Neisser, 1976; Pomerantz & Kubovy, 1981), an extremely large number of studies have demonstrated that pattern and/or picture recognition can occur very quickly (Fisher, Monty, & Senders, 1981). Although the number of studies concerning visual processing has increased dramatically during the past three decades (probably as a result of increasingly sophisticated technology), the methodology was not applied to Rorschach research until recently. Exner (1980, 1983) studied the visual scanning activity of nonpatient adults to some of the Rorschach blots. Figure 11.1 is a crude facsimilie of the eye-scanning activity of a 19-year-old female viewing Card I for approximately 500 ms.³

The arrows represent the focal point of the visual field of the individual. It is not certain how far the peripheral visual field extends, but if a one inch area on either side of the centerpoint is used

³ A Gulf & Western Model 200 Eye Movement Monitor was used to record the scanning activity. The subject's head was held in a retainer to minimize random head movement. The blots were presented tachistoscopically on a small screen in the center of the subject's visual field. The eye movements were recorded through infrared sensors attached to spectacle frames worn by the subject and transmitted in an analog model to a computer and a digital model to a converter, which reproduced the activity on a video display.

as a conservative estimate, it would appear that this woman has viewed all of the blot, and some parts more than once in the course of one-half second. It seems clear that most everyone would scan Card I very completely in the course of one full second. The importance of this finding is that, for 125 adult nonpatients, the average reaction time for the first answer to Card I, measured by a voice actuated timer, is 5.79 seconds ($SD = 2.38$). In other words, even if one second is required to scan and encode the entire figure, nearly five seconds remain before the first answer is usually given.

Figure 11.2 is a crude facsimilie of the scanning action of a 23-year-old nonpatient male when shown Card III. It reflects his eye activity during the interval of 1.1 seconds after the figure was presented. He scanned this card at about the same pace as other persons in the study. His eye activity indicates that he has viewed all of the features of this broken blot at least once, and some segments more than once during this interval. The average reaction time for the first response to this card is 7.74 seconds ($SD = 3.1$), indicating that the majority of people offer their first answer in a period of about 4.5 to nearly 11 seconds. Thus, it seems reasonable to suggest that an interval of five to nine seconds elapses *after* the input occurs until the first answer is given.

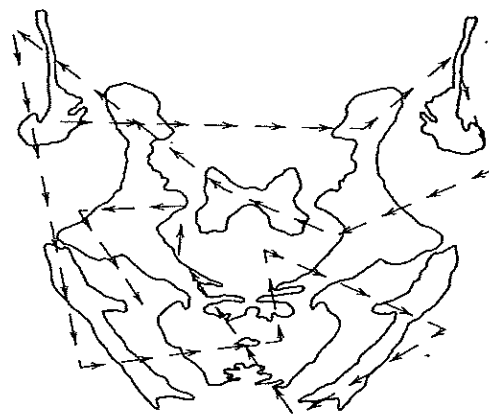


Figure 11.2 Visual scanning by a 23-year-old male during the first 1100ms after blot exposure.

The importance of these findings is not that the person is able to input the stimulus quickly. That result is expected based on many studies about eye activity. The importance rests in confirmation of the *delay period* that exists between the input and the output. It is in that critical interval of a few seconds that many substantive operations take place that lead to the decisions of how the person will use the potential answers that he or she has identified after being exposed to the stimulus.

THE CLASSIFICATION (IDENTIFICATION) PROCESS

As the stimulus field is scanned, it is encoded and held in a form of short-term storage, and the process of classification begins. Data from long-term storage are used as the basis for comparison to classify (identify) the field and/or its parts. It is also important to note that the encoding and storage of the image does not cease after a brief interval. The person taking the test retains the card throughout the response period. Visual scanning continues during this time and it is likely that the encoding becomes more precise.

As classification begins, the presence of distinctive or critical distal features in the encoded field becomes quite important. In some instances, a person may not easily classify the field as a whole, or some of its parts, because of their apparent ambiguity. But almost all people, with the possible exception of those with severe intellectual or neurological deficits, will easily identify some elements in the field as being sufficiently congruent with known or imagined objects to create potential answers. This is because the critical distal features, in each of the 10 fields, create a similarity to real or imagined objects. As a consequence, some whole blots, or blot areas, have a greater likelihood of being included among the responses that are actually delivered when the rank ordering and discarding procedures are completed.

This occurs because of the way that Rorschach designed each figure. He did not simply drop paint or ink on a page and fold it to create symmetry and

settle for the result. That is how he began but, after creating an ambiguous figure, he carefully sketched the details of the blot. His objective was to ensure that each blot contained distinct features that would tend to promote specific classes of responses. The presence of Popular responses probably best illustrates the intent of his effort.

Popular Responses

Although Popular answers are defined as those responses that occur in at least one out of every three protocols, that criterion is very conservative. In reality, most Popular responses appear much more frequently. For instance, more than 90% of all subjects identify the *D1* area of Card VIII as some sort of four-legged animal. This is because the contours of that area are very comparable to the legs, body, and head of a four-legged animal, and its location is somewhat discrete in the figure. Thus, even though the coloring of this area (pink) is incongruous to a four-legged animal, its distinctiveness and location, plus the fact that other areas of the blot are less easily identified, promote a high frequency of animal responses.

Similarly, approximately 85% of all subjects identify Cards I and V as a winged object, usually a bat or butterfly, and more than 80% identify the *D9* area of Card III as a human figure. In fact, only two of the 13 Popular answers appear in fewer than 50% of the 7,500 protocols that were used as the data set from which to distinguish Populars. The human or human-like figures response to the *D3* area of Card IX appear in only 39% of the records and the animal heads or whole animals to the *D1* area of Card II occur in only 35% of the protocols.

Competing Critical Bits

In addition to the primary distal features that promote Popular answers, there are other distal properties in each of the 10 figures that seem quite potent in contributing to frequent classifications of objects or classes of objects. Sometimes,

more than one identification of a blot field is encouraged because of competing critical distal features. Findings regarding Cards I and V are good examples.

Exner (1959) changed the grey-black coloring of Card I to light blue, yellow, or pink, holding all other features constant. He found that when the figure is blue or yellow, the Popular bat response, usually appearing in about 45% of protocols, declines to an almost zero frequency. Conversely, the Popular butterfly answer, usually appearing in about 40% of records, was given to more than 80% of the chromatically colored versions of Card I. Thus, it is realistic to surmise that the achromatic color is important to the identification of the field as a bat. It has also been found that if the *Dd34* projections are eliminated from the Card I figure, a marked decline in the frequency for both the bat and butterfly answers occurs, and an increase in face or mask responses occurs. A similar manipulation of response frequencies for Card V responses results when the distal features are altered.

About 85% of persons taking the test identify Card V as a bat or a butterfly. The proportions for each answer are nearly the same. About 44% give the butterfly answer and about 41% give the bat response. Why do some people identify the blot as a bat while others translate it as a butterfly? The difference is not attributable to gender, age, types or severity of pathology, or basic response styles. The differentiation apparently occurs as a result of the weight that individuals give to one or more of three critical distal bits in the Card V stimulus field (Exner, 1996). One is the grey-black coloring of the figure, which is somewhat incongruous with the butterfly answer. When the color is altered to pink, a change in response frequencies does occur, although not as much as might be expected. About 55% of respondents give the butterfly answer, but about 30% continue to give the bat response (Exner, 1959).

The other two critical bits in the Card V field are contours, and they tend to have more potency for those selecting either the bat or butterfly

responses. The first is the side *D10* projections, which seem to be incongruous with both answers, but apparently are not. When the *D10* area is eliminated from the blot approximately 70% of respondents give the butterfly answer whereas only about 15% give a bat response. Obviously, the *D10* area is critical, either serving to thwart the butterfly answer or facilitate the bat answer. Another critical area is the top *Dd34* projections. When *Dd34* is deleted, about 70% of respondents identify this modified field as a bat and fewer than 15% report a butterfly. Clearly, the *Dd34* area is an important distal feature to those who select the butterfly answer (Exner, 1996).

Distal Feature Potency

The potency of distal features will often change if their position in the visual field is altered. For example, when Card VII is viewed in the upright position, about 65% of respondents identify the *D2* area as a human figure and about 25% identify it as an animal, usually a rabbit. When Card VII is viewed sideways, the *D2* area is rarely identified as a human figure and about 50% of respondents identify it as a dog (Exner, 1996).

Although contours probably represent the most important critical distal features in the blots, the color and shading properties sometimes play a very potent role in establishing response parameters. For instance, if Card VI is presented as solid grey, so that the internal shading variations are eliminated, the frequency of the Popular animal skin or pelt response to the *D1* area is reduced very significantly. However, if the shading is held constant and the color is chromatic (blue, yellow, or pink), the frequency of the Popular response does not decline (Exner, 1961).

Sometimes, a distal feature of a blot is influential to the formation of an answer even though it may not be specifically articulated in the response. For example, when the Popular animal response is given to the *D1* areas of Card II, movement (*FM*) is included as a determinant in about 85% of those answers. The animals are identified in playful

activity (COP) in about 30% of those responses, and in relation to aggressive activity, usually fighting (AG) or hurt (MOR), in nearly 40% of the answers. When a COP is given, the red areas of the blot (usually *D3*) are articulated in about two of every five answers. When an AG or MOR response is given, the red areas (either *D2* or *D3*) are articulated in about three of every five responses.

If the red *D2* and *D3* areas are deleted from the blot, or if they are changed in color to grey-black, the frequency of animal movement responses remains about the same but the proportion of AG and MOR movement answers is reduced to less than 5%, while the proportion of COP answers increases to nearly 70%. It seems obvious that the presence of the red areas in the Card II field contributes substantially to the formation of the AG and MOR answers even though the red is not articulated in about 40% of those responses.

Sometimes distal features serve to call attention to an area, and by doing so, increase the response rate to that area. For instance, the most common answers given to the blue-colored *D1* area in Card X are spider or crab. Exner and Wylie (1976), pursuing the hypothesis that the blue creates a dissonant effect, used a dye-coupling technique to alter the color of the *D1* area to a reddish-brown. The entire test was administered to two groups of 50 subjects each, one of nonpatients and one of inpatients, with a random half in each group being administered the standard Card X and the other half the altered version. The groups administered the altered version of Card X gave significantly fewer spider and crab responses than did the controls, even though the altered coloring was more congruent with either of those two answers.

This finding seemed puzzling until it was noted that the persons in the experimental group gave almost twice as many answers than controls to another area of the blot, *D6*, which is colored blue. A 30-item questionnaire was hastily contrived and administered to 50 people who had participated in the experiment. It contained one critical item, *What is your favorite color*, to which

41 persons responded with the answer, "blue." Apparently, the blue coloring of the area causes more people to attend to it during the classification process. Exner and Wylie (1977) created a completely achromatic version of Card X to test this hypothesis. They administered the entire test to 30 nonpatient volunteers, half of whom were administered the standard version of Card X and half the achromatic version. Only three subjects in the experimental group gave spider or crab responses to the *D1* area, whereas 12 of the 15 persons in the control group did so. Similar findings for Card X have been reported by Silva (2002), who has compared responses to chromatic and achromatic versions of the figure.

The Temporal Factor and Classification

Although there is still much to be learned about the cognitive activity involved in the classification procedure, it is clear that it begins very quickly after the figure enters the visual field. The first clue to this, generally disregarded by the Rorschach community, was noted by Stein (1949). He presented the blots tachistoscopically to two groups of subjects four times. The "ascending" group was shown the blots for one-hundredth of a second in the first administration, one-tenth of a second in the second administration, three seconds in the third, and given an unlimited time exposure in the fourth. The "descending" group (controls) received the four administrations with the exposure times reversed, that is, starting with the unlimited time exposure.

Unfortunately, the time intervals between testings were very brief and this rapid retest procedure probably confounded some of the results. Nonetheless, some clues about the rapidity of the response formulation may be gleaned from the results for the ascending group. In their first trial, with the blots exposed for only 10ms, the subjects averaged nearly 10 answers, with a range of five to 14 responses. When the blots were exposed for a full three seconds, two trials later, the average number of answers increased to 12, with a range

of eight to 17. However, Stein noted that, with the substantially longer exposure time, the frequencies of answers based exclusively or primarily on the contours of the blots increased markedly. In the third trial (three second exposure), a much greater number of Popular responses were given than had been the case when the blots were exposed for the brief intervals. In other words, once the blots were exposed long enough to permit a full scan of the field, considerable homogeneity occurred among the responses given.

In a related study, Horiuchi (1961) presented Cards III and VI tachistoscopically to groups of 80 nonpatients, 80 neurotics, and 80 schizophrenics for intervals of 0.10 seconds, 0.30 seconds, 1.0 second, and unlimited time. She found that 60 of the 80 nonpatients and nearly half of the neurotics and schizophrenics gave at least one response per blot with the exposure time of 100ms. When the exposure time was increased to 300ms, all of the nonpatients gave at least one response per blot, but the frequency of answers for the neurotic and schizophrenic groups did not increase. She also found that some persons from the neurotic and schizophrenic groups continued to have difficulty forming a differentiated response when the blots were exposed for a full second. She concluded that some of the mediational activity necessary to form an answer is inhibited in conditions of psychopathology.

Colligan and Exner (1985) used a tachistoscopic presentation of the blots with three groups of 36 subjects each, schizophreniform inpatients, orthopedic inpatients, and nonpatients. Each group was randomized into three subgroups of 12 persons each, and the blots were exposed to one subgroup for 200ms, the second for 400ms, and the third for 600ms. Subjects were instructed to give their responses after a tone, which was sounded 900ms after the exposure to allow sufficient time for the decay of the icon. They found that 62 of the 72 nonpsychiatric subjects were able to give at least one response to each blot, and nine of the 10 who gave refusals were in the subgroups with time exposures of 200ms or 400ms. Several of the

nonpsychiatric subjects in each of the subgroups gave between 12 and 15 answers, but 17 of the 36 schizophreniform subjects gave fewer than 10 answers. Eight of those 17 were in the 600ms subgroup. These findings may support Horiuchi's postulate that mediation is impaired by psychopathology, but it might be more accurate to suggest that the schizophreniform individuals were much more defensive in the test situation.

Another finding from this study is probably more important. It concerns the appropriate use of the blot contours. Nearly 70% of all responses given by the nonpsychiatric subgroups included an appropriate use of contours. The answers in which the contours of the blot were violated occurred mainly to the more broken blots, II, III, VIII, and X, and many of those answers seem to reflect the principle of closure, that is, individuals created an imaginary line to encompass the parts of the blots, such as reporting that Card III is a face. This suggests that the exposure times were of insufficient length to permit a full scan of the more broken blots.

Colligan (1992) used the same design with 30 nonpatients, randomized into three groups of 10 each, and increased the exposure times. The figures were exposed to one group for 600ms, the second group for 800ms, and the third group for one second. Although the average *R* for each group is low, 11.2, 10.9, and 12.7 respectively, the range of *R* lengthened with exposure times. It extended from eight to 14 for persons in the 600ms group, eight to 16 in the 800ms group, and eight to 19 for those in the one second exposure group. The average number of Popular answers also increased with exposure times, 2.6, 3.2, and 4.7 respectively, as did the appropriate use of form. The *XA%* was 74% at 600ms, 83% at 800ms, and 86% at one second. Correspondingly, the *X-%* decreased from 26% at 600ms to 14% at one second. No minus answers were given to Card V by persons in any of the groups. It is the most solid of the figures and, apparently, easy to scan quickly. Interestingly, 50% of all of the minus answers were faces, most of which were given to Cards III, VIII, and X,

suggesting that even one second is probably not sufficient for a full scan of those broken figures.

The more broken the field, the more time will be necessary for the procedure of encoding and classifying, but extrapolating conservatively from the eye-tracking data and T-scope studies, it seems reasonable to assume that a period of two to three seconds after exposure is more than sufficient for encoding the field and classifying at least three, if not more, potential answers. Why then, do most people take at least twice that time, and often much longer, before delivering their first answer? It seems probable that the procedures of ranking and discarding are mainly responsible for the delay.

RANKING AND DISCARDING POTENTIAL ANSWERS

The instructions to people taking the test are deliberately brief, and no requirements or limits are implied concerning the number of responses. People who give only one answer to Card I are prompted for more, implying that only one response may not be sufficient. However, persons who give more than one response to Card I receive no confirmation that the yield is sufficient, except by the passive acceptance of the examiner. Some people seek direction by asking, "Is that enough" or "How many should I give," but unless a prompt is given on Card I, the response to such queries remains open-ended, *It's up to you*. This requires the person to decide how many of the potential answers that have been formulated to deliver.

The majority of persons confronted with this issue appear to be influenced by an economy principle in their decisions about the number of answers. To be sure, there are occasional compulsive-like people who seem prepared to give an infinite number of answers to each blot, but they are deterred from this with standard procedures. But most people are conservative with their yield of answers, and this probably accounts for the fact that most groups average about 22 responses. Whether the orientation to

economize is a simple matter of efficiency, or a matter of defensive concealment is not certain, but probably both are involved. Practically all who take the test, even children, have some conception of psychological testing, and frequently will have some vague, often faulty, awareness of the inkblot test. People tend to think of testing in terms of educational models, which include right and wrong answers, high versus low scores, and passing or failing. Even when the examiner properly devotes time to an explanation of procedures and arranging for feedback, most people will still be influenced by prior sets and/or some apprehension about the situation. The desire to complete the test quickly and effectively is natural in such a situation, and probably contributes to some of the economy orientation.

Selecting by Rank Order

Another element that contributes to the economy orientation is the rank ordering process. As noted earlier, some blots or blot areas are easier to classify than others. Quite often a single blot or blot area will be identified more than once. For example, the whole Card I might be classified as a bat, a bird, and a butterfly. Some people elect to give two, or all three of those potential answers, but most persons will give only one of those responses. In doing so they discard the others. The selection of which of the three to deliver is based, at least in part, on some form of ranking, such as it looks more like a bat than either a bird or a butterfly.

This same process occurs whether the multiple potential answers are generated from the same blot area or from several areas. For instance, a person might classify the whole Card I as a bat and a butterfly, *D4* as a woman, *D2* as an animal, *D7* as a bird, and the *DdS29* areas as triangles. But that person is unlikely to give all six answers, and probably will give no more than two or three. At least in part, the decision of which two or three to give is influenced by a paired comparison rank ordering of the prospective answers. In a

pilot study, Martin and Thomas (1982) presented the blots twice, using a projector, to a class of 28 high school students. In the first presentation, each figure was exposed for one minute, and the students were instructed to *write* three responses per blot on a form provided. In the second exposure, the figures were shown again for 15 seconds, and the students were instructed to look at the figures again and select one of the three answers they had written to be *scored*. They were also to write a brief statement about why they selected that answer. Of the 280 statements, 159 could easily be categorized under the heading, "It looks most like that."⁴

Although it is clear that some form of paired comparison ranking, based on a similarity to known objects, does occur, it would be erroneous to assume that this procedure is *mainly* responsible for the selection of the answers that are delivered. There are at least three other elements that play a significant role in determining which of the potential answers will be delivered and which will be discarded.

Discarding through Censorship

As noted earlier, most people will approach psychological testing with some preconceptions. Some may concern psychological testing in general, and some may be specific to the Rorschach. Generally they result from bits and pieces of information concerning testing, but many of the sets with which a person approaches the test are derived from the more broadly based values. Whatever the origins, this composite of attitudes will often be very influential on the procedures of discarding and selecting. For instance, the MMPI K Scale has been demonstrated to have some relation to the orientation to make socially acceptable responses (Dahlstrom, Welsh, & Dahlstrom,

1972). In the Exner, Armbruster, and Mittman (1978) study cited earlier, the 20 persons scoring in the upper half of the MMPI K Scale distribution averaged 17 fewer responses than did those scoring in the lower half. This suggests that persons more oriented toward making acceptable responses tend to withhold or discard more responses than do persons not so oriented. These findings have provoked several other studies regarding the circumstances in which subjects may be more or less prone to withhold or discard responses.

In the study reported by Exner, Armbruster, and Mittman (1978), 10 therapists were asked to recruit two each of their own patients who had never taken the Rorschach. The patients were randomized so that each therapist tested one of his or her patients and the patient of another therapist with whom the examining therapist had no prior contact. The results show that those patients tested by their own therapist averaged 10 more responses to the test than did the controls, including significantly more sex responses (4.3 versus 0.8). Leura and Exner (1978) trained 10 junior high school teachers to administer the Rorschach and then used them in the same design. Each teacher was asked to recruit two volunteers from his or her seventh grade classes. The criterion for selection was that the students were progressing quite well in that class. The volunteer students were randomized, so that each teacher tested one of his or her own pupils, and a student from another school with whom the examining teacher had no prior contact. Students tested by their own teacher averaged nearly 16 more responses than did the controls.

The results of these studies seem to indicate that persons who feel emotionally and/or intellectually close to their examiner will deliver more and conceal less. However, this should not be translated to suggest that the well-trained examiner can or will have a significantly influential effect on how many responses are delivered. If the test is administered in the standardized manner, examiners can expect to obtain a normal distribution of responses. Exner (1974) demonstrated

⁴ The comments for the total group varied considerably from "I don't know" to "I like those," but all categorized under the rubric of "It Looks Most Like That" ranged from form specified responses such as, "It has the wings and body like they are," to "It looks more like that than anything else there."

that some novice examiners may, because of their own difficulties and discomfort about learning the procedures of the test administration, cause fewer responses to be delivered than might ordinarily be the case. Apparently the discomfort of the examiner increases the apprehensiveness of the subject and leads to more withholding. But this is easily corrected with supervised experience in administration.

Goodman (1979) studied the effect of sex differences among examiners, using a design in which 10 male and 10 female examiners each tested two male and two female subjects. She also rated the examiners on an interpersonal "warmth" scale, using videotapes of them administering the TAT to a collaborator. Her results indicate no significant effects for the same-sex versus cross-sex pairings. She did find that the more experienced examiners, who also tended to be rated as warmer in their interactions, elicited a greater number of human responses than did the less experienced examiners. She also found that experienced examiners obtained more records of average length (17 to 27 responses) than did the examiners who were still in graduate school training. Although the element of rapport between the examiner and subject will contribute to censorship based discarding of potential answers, it seems likely that much censoring occurs because of sets about the test and value judgments concerning the acceptability of answers.

Exner and Leura (1976) used 30 male and 30 female volunteer nonpatients in a study concerning the ease with which objects can be perceived in the blots. None had prior exposure to the test. The 60 volunteers were randomized into two groups of 30 each, and seated at opposite ends of a hotel ballroom, each at their own small table. The groups were separated by a thick sliding wall. Each person was provided with a list of five answers per blot plus a location sheet on which all 50 answers were outlined. Each group of five answers was randomized for order, so that none appeared at the same point in the list for more than six persons in each group. Each list of five answers included a Popular response, two commonly

given responses, and two others that are not given frequently. One of the five answers, the *target* response, had a content implying sexuality, injury, or violence.

For example, the five answers listed for Card I were, a bat, a mask, an animal, a bell, and the target answer, a naked woman. All of the target responses involve large or discrete areas of the blots. Subjects were instructed to look carefully at each blot as it was projected on a screen for an interval of 165 seconds, review the areas outlined on the location sheet, and decide the ease with which each could be recognized as compared with the remaining four answers. A rank of one was to be assigned for the answer easiest to see, two for the next easiest to see, and five for the one most difficult to see. The only difference between the two groups was that one was told the responses they would be ranking were among those given most often by normal people, whereas the second group was told that the responses represented those given most often by severely disturbed psychiatric patients.

When the groups were compared for their rankings, a significant difference occurred for 22 of the 50 answers, including eight of the 10 target responses. For example, only four of the 30 persons, told the responses came from disturbed patients, ranked the Card I target response (naked woman) 1 or 2, whereas 15 of the 30 assigned a rank of 5 to that answer. Conversely, 19 of the 30 subjects told that the answers were given frequently by normal individuals ranked the target answer 1 or 2. The responses listed for Card VI included an animal skin, a totem pole, a human profile, a dog, and the target response, a penis. Two people from the group told that the answers came from psychiatric patients ranked the target answer 2 and 3 while the remaining 28 ranked the target answer 4 or 5. In the group set to believe that the responses came from normal people, 19 ranked the target answer 1, and 4 others assigned the rank of 2. Only three individuals ranked the target answer 4 or 5.

Thomas, Exner, and Leura (1977) used another group of 60 nonpatients in a modification of this same design. Again, the group was randomized into

two groups of 30 each and seated at opposite ends of a ballroom separated by a sliding wall. They were provided with the same lists of five responses per blot used in the previous study, but with location sheets on which there were *no* outlines of the answers. These groups were given similar, but more distinctive sets concerning the origins of the responses. One group was told that the answers were given most commonly by very successful businessmen, while the second group was told that the responses were those given most often by inpatient schizophrenics. Instead of projecting the blots on a screen, each person was provided with a set of the Rorschach cards. The subjects were instructed to study each blot carefully, using as much time as might be necessary, and *find* each of the objects listed and, using a black marking pen, to outline each on the location sheet. After locating and outlining all five, they were to decide which was the easiest to see, the next easiest, and so on, using the same rankings of one to five that had been used in the earlier study. The results are similar to those of the earlier study.

The groups differed significantly for their rankings of 21 of the 50 responses, including nine of the 10 target responses. The 10 target responses and the frequencies for rankings are shown in Table 11.2. The ranks of 1 and 2, and 4

and 5 have been collapsed to represent the easier versus more difficult to see categories.

In each study, the difference in the rankings between the groups appears to be a function of the sets employed concerning the origins of the responses. It seems logical to postulate that the negative set (responses were given by psychiatric subjects) caused many to rank some responses as being more difficult to perceive, whereas those with the positive set felt less need to do so. Although studies of this kind are inconclusive about censoring operations that occur when selecting answers, they do appear to provide some clues about how the process may work. Even though the rank ordering operations might cause a potential answer to be ranked highly in terms of object similarity, the censoring operation might cause the response to be discarded because the person places a negative value judgment on it in light of the test situation.

STYLES AND TRAITS IN SELECTING RESPONSES

Although rank ordering and censoring seem to be important components of the response process, there are other elements that may supercede those operations in the discarding and selection

Table 11.2 Frequencies of Rankings for 10 Target Responses Given by Two Groups, with Ranks 1 and 2, and 4 and 5 Collapsed.

Card	Area	Responses	Rankings					
			Group I Schizophrenia Set			Group 2 Businessmen Set		
			1-2	3	4-5	1-2	3	4-5
I	D4	Naked woman	5	4	16*	18*	9	3
II	D2	Blood smears	1	10	19	14*	5	11
III	D2	Blood running down	5	11	14	16*	6	8
IV	W	Monster looming	21	6	3	20	9	1
V	W	Rams fighting	7	15	8	18*	10	2
VI	D2	Penis	3	9	18*	21*	5	4
VII	D6	Vagina	0	7	23*	13*	9	9
VIII	W	Open chest cavity	4	7	19	14*	5	11
IX	D6	Buttocks	0	12	18*	11*	11	8
X	D9	Blood stains	5	13	11	15*	7	8

*Statistically significant larger number of this rank. $p < .05$.

decisions. Among the more potent of these are the basic psychological characteristics of the individual. There is little doubt that they play a dominant role in determining which answers will be delivered. These are the features of people that cause them to be relatively consistent in many of their psychological operations and manifest behaviors. Historically, they have been identified as psychological habits, traits, styles, or dispositions. Whatever nomenclature is used, it represents the composite of the more dominant elements of the personality structure that breed behavioral preferences and create a tendency to redundancy in the selection of many coping responses.

These features are often reflected in the descriptions of a person rendered by those who know him or her well. For example, people may be described as being quiet, reserved, spontaneous, emotional, forceful, passive, and so on. Some people may be described as sturdy in the face of stress, while others may be thought of as easily disorganized under stressful conditions, and so on. If the person offering the description has frequent contact with the person being described, it is very likely that the description will be reasonably accurate. These characteristics are especially influential to many of a person's decision making operations when coping or problem solving are required. In that the task of the Rorschach requires a form of decision making, it is natural that the person will be influenced by these characteristics. In effect, the tendency of people to be behaviorally redundant manifests in Rorschach related operations, and creates a greater probability that certain classes of response will be selected for delivery than other classes of response that are also available.

The tendency to be redundant is the main feature causing the Rorschach to be temporally consistent. During the often stormy history of the Rorschach, those who disavowed its usefulness frequently pointed to problems of establishing satisfactory evidence of reliability. Unfortunately, most of the efforts to do so approached the issue by attempting to demonstrate that the test is

internally consistent, using a split-half technique (Vernon, 1933; Hertz, 1934; Ford, 1946; Orange, 1953). Although the results were statistically significant, very few of the correlations fall into the .75 or higher range that would be required if a test is to be judged as truly internally consistent. The problem with this approach to reliability is the required assumption that the stimuli are equivalent, and will be equally likely to promote any class of response. The Rorschach figures are not equivalent stimuli. They differ for levels of complexity and are clearly different for the kinds of responses they are likely to generate.

In developing the Comprehensive System, the issue of reliability has been addressed by studying the temporal consistency of classes of response. The operational hypothesis posed is that people do have preferred response styles that manifest in the majority of their responses, and evidence for those styles should be consistently evident in repeated testings. Holzberg (1960) has questioned the usefulness of the test-retest model for the Rorschach, arguing that personality variables might not be consistent over time, and that a different set might occur during the second testing because of the memory input created by the earlier testing. Neither of these objections is very convincing. A host of data exist indicating that many so-called personality traits do remain consistent over time (London & Exner, 1978), and the findings of the Exner, Armbruster, and Mittman (1978) study suggest that if memory is an important variable, it is less contingent on recalling what was seen, and more on recalling what was reported.

Numerous temporal consistency studies have been completed, using groups of adults and children, patients and nonpatients. The intervals between first and second tests have varied from a few days to many months. When considered with regard to a consistency of response styles or dispositions, two long term retest studies offer the most substantial data. In the first (Exner, Armbruster, & Viglione, 1978), 100 nonpatient adults, 50 male and 50 female, were retested after 36 to 39 months. In the second (Exner, Thomas, & Cohen,

1983), 50 nonpatient adults, 25 male and 25 female, were retested after 12 to 14 months. Some additional calculations from the 1983 data were made after the protocols were rescored for new variables (Exner, 1999). Retest correlations from these studies are shown in Table 11.3.

An examination of the data for the 50 persons retested after approximately one year reveals that four of the correlations exceed .90, and 25 others fall between .81 and .89. Ten of the correlations fall below .75, a finding that is not surprising, because the psychological characteristics related to all 10 can be influenced by *state* as well as *trait* features. The data for the retests taken at approximately three years are quite similar. One of the correlations falls at .90, and 18 others are between .80 and .87. Six, all related to state conditions, fall below .70. The psychometric purist might argue, with some merit, that correlations falling below .80, or even below .85, are not sufficient to support a claim of stability or consistency for a variable. This argument is most relevant to those variables having retest correlations between .70 and .79. Seven of these appear in the data for the one year retest, and 10 in the data for the three year retest. The features and/or operations related to these variables are not as consistent as the features and operations related to the variables with higher retest correlations, yet each accounts for at least one-half of the variance. Thus, it seems reasonable to postulate that these variables relate to characteristics having some considerable stability, but which are also more subject to influence by other conditions, including lengthy time intervals.

It is also important to note that none of the 26 single variables listed in Table 11.3, *taken alone*, have a critical impact on the interpretation of the test. The 15 ratios and percentages shown in Table 11.3 have a much more important role in interpretation, and most of those do have retest correlations of .80 or greater. Those having correlations of less than .80 are much more related to state influences.

Whereas the data in Table 11.3 indicate that most of the characteristics represented by Rorschach scores are very stable among nonpa-

tient adults over long periods, the same is not true for children. Exner and Weiner (1982) have reported relatively low retest correlations for six-year-olds who were retested at age eight, and for nine-year-olds retested when they were 12. The results of an eight-year longitudinal study of 57 nonpatient youngsters, tested first at age eight and retested at each two year interval through the age of 16, show that retest correlations for most variables tend to remain low until the interval between 14 and 16 years of age (Exner, Thomas, & Mason, 1985). However, this should not be interpreted to mean that the traits or styles of the child are not stable over briefer intervals, or that those features will have little influence on the selection of responses. Retest correlations for most variables are quite respectable, for both children and adults, when the second test is taken in less than one month. Table 11.4 includes the results of three such studies. One concerns 25 nonpatient eight-year-olds retested after seven days (Exner & Weiner, 1982). In the other two, involving 35 nonpatient nine-year-olds and 35 nonpatient adults, the retest was administered after approximately three weeks (Thomas, Alinsky, & Exner, 1982).

The correlations for the eight-year-olds retested after seven days include nine which are at .90 or greater and 13 others between .80 and .89. Those for the nine-year-olds include eight at .90 or greater, and 17 others falling between .80 and .89. The correlations for the adults include six at .90 or greater and 25 between .80 and .89. The number of high correlations yielded from these brief interval retest studies tends to favor the postulate that these characteristics do play an important role in the selection of answers to be delivered. It could be argued, following from Holzberg (1960), that the memory factor may play an important role when brief interval retesting is done, thereby causing some correlations to be spuriously elevated. But there is evidence to indicate that this is not the case.

Exner (1980) recruited 60 nonpatient eight-year-olds from four elementary schools under the guise of needing *practice* subjects for examiners in training. Thus, each child volunteered for the

Table 11.3 Correlation Coefficients for Nonpatient Groups of 50 Adults Retested after 12 to 14 Months and 100 Adults Retested after 36 to 39 Months.

Variable	Description	1-Year Retest	3-Year Retest
		<i>r</i>	<i>r</i>
<i>R</i>	Number of Responses	.86	.79
<i>P</i>	Popular responses	.83	.73
<i>Zf</i>	Z Frequency	.85	.83
<i>F</i>	Pure Form	.74	.70
<i>M</i>	Human Movement	.84	.87
<i>FM</i>	Animal Movement	.77	.72
<i>m</i>	Inanimate Movement	.26	.39
<i>a</i>	Active Movement	.83	.86
<i>p</i>	Passive Movement	.72	.75
<i>FC</i>	Form Color Responses	.86	.86
<i>CF</i>	Color Form Responses	.58	.66
<i>C</i>	Pure Color	.56	.51
<i>CF+C</i>	Color Dominant Responses	.81	.79
<i>SumC</i>	Sum Weighted Color	.82	.86
<i>SumT</i>	Texture Responses	.91	.87
<i>SumC'</i>	Achromatic Color Responses	.73	.67
<i>SumY</i>	Diffuse Shading Responses	.31	.23
<i>SumV</i>	Vista Responses	.87	.81
<i>FD</i>	Dimension Responses	.88	.83
<i>Fr+rF</i>	Reflection Responses	.82	.78
(2)	Pair Responses	.81	.83
<i>DV+DR</i>	Deviant Responses	.72	.79**
<i>INC+FAB</i>	Inappropriate Combinations	.89	.82
<i>COP</i>	Cooperative Movement	.81	*
<i>AG</i>	Aggressive Movement	.82	*
<i>MOR</i>	Morbid Content	.71	*
Ratios and Percentages			
<i>L</i>	Lambda	.78	.82
<i>EA</i>	Experience Actual	.83	.85
<i>es</i>	Experienced Stimulation	.64	.72
<i>Adjes</i>	Adjusted es	.82	*
<i>D</i>	Stress Tolerance Index	.91	.83
<i>XA%</i>	Appropriate Form Use	.89	*
<i>WDA%</i>	Appropriate Form Use To W+D	.92	*
<i>X+%</i>	Appropriate/Common Good Form	.86	.80
<i>X-%</i>	Distorted Form Use	.92	.86
<i>Afr</i>	Affective Ratio	.82	.90
<i>3r+(2)/R</i>	Egocentricity Index	.89	.87
<i>WSum6</i>	Weighted Sum Special Scores	.86	*
<i>Blends</i>	Multiple Determinants	.62	.67
<i>Intell</i>	Intellectualization Index	.84	*
<i>Isolate/R</i>	Isolation Index	.84	*

* = Not coded or calculated in the Comprehensive System at the time of the study.

**= Includes only DV as DR not coded in the Comprehensive System at the time of the study.

Table 11.4 Correlation Coefficients for 25 Nonpatient 8-Year-Olds Retested after 7 Days, 35 Nonpatient 9-Year-Olds, and 35 Nonpatient Adults Retested after Approximately 3 Weeks.

Variable	Description	Eight-Year-Olds 7-Day Retest	Nine-Year-Olds 3-Week Retest	Adults 3-Week Retest
		<i>r</i>	<i>r</i>	<i>r</i>
<i>R</i>	No. of Responses	.88	.87	.84
<i>P</i>	Popular responses	.86	.89	.81
<i>Zf</i>	Z Frequency	.91	.92	.89
<i>F</i>	Pure Form	.79	.80	.76
<i>M</i>	Human Movement	.90	.87	.83
<i>FM</i>	Animal Movement	.75	.78	.72
<i>m</i>	Inanimate Movement	.49	.20	.34
<i>a</i>	Active Movement	.91	.91	.87
<i>p</i>	Passive Movement	.86	.88	.85
<i>FC</i>	Form Color Responses	.90	.84	.92
<i>CF</i>	Color Form Responses	.76	.74	.68
<i>C</i>	Pure Color	.72	.64	.59
<i>CF+C</i>	Color Dominant Responses	.89	.92	.83
<i>Sum C</i>	Sum Weighted Color	.88	.87	.83
<i>SumT</i>	Texture Responses	.86	.92	.96
<i>SumC'</i>	Achromatic Color Responses	.77	.74	.67
<i>SumY</i>	Diffuse Shading Responses	.42	.17	.41
<i>SumV</i>	Vista Responses	.96	.93	.89
<i>FD</i>	Dimension Responses	.74	.81	.90
<i>Fr+rF</i>	Reflection Responses	.83	.80	.89
<i>(2)</i>	Pair Responses	.74	.77	.83
<i>DV+DR</i>	Deviant Responses	.71**	.76**	.74
<i>INC+FAB</i>	Inappropriate Combinations	.72	.81	.92
<i>COP</i>	Cooperative Movement	*	*	*
<i>AG</i>	Aggressive Movement	*	*	.81
<i>MOR</i>	Morbid Content	*	*	.83
Ratios and Percentages				
<i>L</i>	Lambda	.82	.84	.76
<i>EA</i>	Experience Actual	.85	.87	.84
<i>es</i>	Experienced Stimulation	.74	.70	.59
<i>Adjes</i>	Adjusted es	*	*	.79
<i>D</i>	Stress Tolerance Index	.93	.91	.88
<i>XA%</i>	Appropriate Form Use	*	*	*
<i>WDA%</i>	Appropriate Form Use to W+D	*	*	*
<i>X+%</i>	Extended Good Form	.95	.92	.87
<i>X-%</i>	Distorted Form Use	.83	.80	.88
<i>Afr</i>	Affective Ratio	.91	.91	.85
<i>3r+(2)/R</i>	Egocentricity Index	.94	.86	.90
<i>WSum6</i>	Weighted Sum Special Scores	*	*	*
<i>Blends</i>	Multiple Determinants	.57	.64	.71
<i>Intell</i>	Intellectualization Index	*	*	*
<i>Isolate/R</i>	Isolation Index	*	*	*

* = Not coded or calculated in the Comprehensive System at the time of the study.

** = Includes only DV as DR not coded in the Comprehensive System at the time of the study.

study by his or her parents, anticipated being tested at least twice, during regular school hours, in a five- to seven-day interval. Ten very experienced examiners were used. None had any awareness of the nature of the study, assuming that they were collecting data in a routine reliability investigation. When the first test was administered, the project director accompanied the child from the classroom to the testing room provided by the school and introduced the examiner. The second test was administered three or four days later. The 60 children had been randomized previously into two groups of 30 each, and the procedure for the control subjects was the same for the second test as the first. This procedure was altered for the subjects in the experimental group. While accompanying them to the testing room, the project director would pause and ask the child to assist in the solution of an important problem concerning the training of the examiners. The "problem," as outlined quickly by the project director, was that the "trainees" were hearing the same answers repeatedly, and that the training would be enhanced considerably if the child would "try hard" to remember the answers that he or she gave in the first test, and promise not to repeat any of those in the test to be taken. In return, the project director offered a reward of 50 cents. All of the children in the experimental group promised to change their answers.

The retest correlations of the two groups are almost identical, with two exceptions. In the retest, the children in the experimental group gave significantly fewer Pure Form responses than in the first test and significantly more responses that included the achromatic or shading features of the blots. Otherwise, the correlations are essentially no different for the two groups, and very similar to those shown in Table 11.3 for the eight-year-olds retested after only seven days. A critical issue is whether the youngsters in the experimental group actually gave different answers. This was addressed by randomizing the 60 pairs of records into three groups of 20 pairs each and assigning each group to one of three judges who were told that the records were from

a reliability study. The judges were instructed to read each pair of records and check all responses in the second test that were the same (or nearly the same) as those in the first test. The comparisons revealed that 481 of the 546 responses (86%) given in the second test by the control subjects were replications or near replications of answers that they had given in the first test. On the other hand, only 77 of the 551 answers (14%) given by experimental subjects in the second test were the same or similar to the first test answers. Thus, even though the youngsters in the experimental group generally did honor the promise to give different responses in the second test, the answers that they tended to select show a distribution of scores, subject by subject, similar to those of the first test.

There are other structural data, not shown in Tables 11.2 or 11.3, which are also important to the study of the consistency hypothesis as related to the selection of answers. Among these are three relationships, or ratio directions. Each is important to the interpretation of the test, either because of the directionality shown in the relationship (which side of the ratio is greater) and/or the magnitude of the difference. The first, the *Erlebnistypus* (*EB*) involves the relationship of *M* to *SumC*. Both direction and magnitude are important to the interpretation of this relationship. In the one-year retest study of 50 adult nonpatients cited earlier, the first tests of 40 subjects showed an *EB* in which one side of the ratio was two or more points greater than the other side. In the second test, 39 of those 40 persons continued to show at least a two-point difference in the *EB*, and only one had changed for the direction of the difference (Exner, 1999). In the study involving the retest of 100 nonpatient adults after three years, 83 of the first test records showed at least a two-point difference in the *EB*. In the retest, 77 of those 83 continued to have the difference of two points or more and only two had changed directionality.

A second important ratio concerns the relationship between *FC* and *CF + C*. In the one-year retest study, 27 of the 50 participants had

FC values that were equal to, or greater than, the value for *CF + C*. The remaining 23 had higher values for *CF + C*. The retest data show that 26 of the 27 persons having higher *FC* values continued to show that directionality (Exner, 1999). In the three-year retest study, 57 of the 100 first records had a difference of two points or more for this ratio. In the retest, 50 of the 57 continued to have the two or more point difference and none had changed directionality.

The third is the ratio of active to passive movement. In this relation, more active movement is always expected, but the magnitude of the difference is also important. In the one-year retest study, 47 of the 50 first test records had values for active movement that were equal to, or greater than, the values for passive movement. The retest protocols show that 46 of 47 continue to have values for active movement equal to, or greater than passive movement (Exner, 1999). In the three-year retest, a two point or more difference was noted in 76 of the first records, with 60 being higher for active movement. In the retest, 57 of those 60 were still two or more points higher on the active side, and 11 of the original 16 high passive records remained at least two points higher in that direction.

The composite of data regarding the consistency of Rorschach scores and ratios, during both lengthy and brief intervals, and even under conditions where different responses are prompted, affords substantial support for the proposition that the traits or styles of the person will be quite influential in the selection of which potential answers to deliver. Yet, there is still another element that will often play a crucial role in the final decisions about which responses to deliver.

PSYCHOLOGICAL STATES AND RESPONSE SELECTION

The consistency of many personality characteristics and their consequent behaviors is contingent upon some relative consistency in the conditions that evoke them. In other words, the habits, traits,

or response styles of a person are probabilistic. Certain classes of behaviors are likely to occur under certain classes of conditions. The conditions include *both internal and external elements*. For instance, a person who is an avid outdoor enthusiast may be far less likely to engage in outdoor activities if temperatures fall well below zero or above 110°. Sedentary activity may replace some of the common activities. Likewise, a person is less likely to engage in outdoor activities if his or her temperature exceeds 101° or if an irritating stomach upset occurs. The person has not changed, but external or internal conditions have changed in a way to cause other behaviors to be evoked.

Similarly, alterations in routine behavior, may result from changes in the psychological state of the individual. Increases or decreases in needs and/or emotions, or the unexpected experience of stress, or the onset of various psychopathological states can have the effect of evoking new behaviors that add to, or replace, preexisting orientations. In most instances, the basics of the person do not change, but some unexpected behaviors may occur. Sometimes, there is only a slight shift in behavior but, in other instances, the deviations from expected behaviors may be much more marked. These are *state* phenomena, which tend to supersede the routine psychological functioning of the person, or, at least, will stimulate the addition of behaviors that are not ordinarily part of the psychological routine.

As has been emphasized, Rorschach responses can be viewed as a sampling of decision making behavior. Thus, if a psychological state exists that will alter, or add to the decision making routines of a person, that state can also influence the selection of responses to be given during the test. For example, two of the variables listed in Tables 11.2 and 11.3 have low retest reliabilities, for both lengthy and brief retest intervals. These are the *m* and *SumY* variables, both of which are expected to occur about once in a record. Both relate to situational stress (Shalit, 1965; Armbruster, Miller, & Exner, 1974; Exner, Armbruster, Walker, & Cooper, 1975;

Exner, 1978; Exner & Weiner, 1982). Thus, if the frequencies for either or both are elevated, it signals that the presence of some situationally related phenomenon which is stimulating the mental and/or emotional experiences that occur when concerns about loss of control and feelings of helplessness or paralysis exist.

Another illustration of how the selection of Rorschach answers may be influenced by a state condition is exemplified by the texture variable. Approximately 70% to 80% of all nonpatient adults give one texture answer and, for this reason, the retest reliabilities for *SumT* usually ranges from .80 to .90. If a person has recently experienced a significant emotional loss, the average number of texture responses will often increase. Exner and Bryant (1974) found an average of nearly four texture responses in the records of 30 adults who had recently separated from close emotional relationships. When retested, approximately 10 months later, 21 of the 30 reported that they had established new relationships or reconstructed the one that had been fractured, and they uniformly gave substantially fewer texture responses in the second test than in the first. The nine people who reported a continuing sense of loss all gave three or more texture responses in the second test.

Although many psychological states are transient, others can form a more enduring overlay to the primary personality structure. Many psychopathological states have this impact, and just as they influence a broad spectrum of behaviors, they are influential in the selection of Rorschach answers. Severe and/or enduring depression is an example of this. Depressed people tend to give higher frequencies of vista and achromatic color answers than do other groups. They also tend to give more MOR responses, and usually have low values on the Egocentricity Index. Haller and Exner (1985) used a design similar to that employed by Exner (1980) with children, with 50 patients, admitted with presenting symptoms of depression and/or helplessness. All were retested three or four days after the first test, and a randomly selected half were asked to give different answers in the second test. That

group repeated about 33% of their first test answers, whereas the control subjects repeated nearly 70% of their first test responses. In spite of the fact that the experimental group gave more than 68% new answers in the second test, the retest reliabilities for both groups were very similar to those reported by Exner for children in the same design. Moreover, the group did not differ significantly from one to another for any of the variables related to depression.

As the state endures, so does its influence, and the more severe the state may be, its impact on decision making will be greater. Exner et al. (1985) found that the retest reliabilities for the major indices of depression remained very high among inpatient adolescents diagnosed as having a major depressive disturbance even after having been in treatment for nearly one year. On the other hand, as the state dissipates, so too does its influence on the selection of Rorschach answers. Exner, Cohen, and Hillman (1984) retested 46 persons, diagnosed by *DSM-III* criteria as having a major depressive disorder, at the termination of their treatment. All had begun treatment as inpatients and continued treatment as outpatients for a period averaging almost two years. The retest correlations for each of the variables related to depression were very low, ranging from .19 for the vista variable, to .33 for the presence of MOR responses.

In effect, the psychological state of the person taking the Rorschach will contribute in the final selection of the answers that are delivered. The influence of the state in the selection of responses will probably be proportionate to its impact on the individual, and its duration. It will not always supersede other influencing traits, styles, or habits, but it may.

PROJECTION AND THE RESPONSE PROCESS

Does projection occur in the selection and/or discarding of all responses? That position can be argued only if the definition of projection is

extended to include all decision operations, but that is a simplistic and overinclusive position. If the selection of a response is based exclusively on the classification and rank ordering operations, it seems highly unlikely that projection is involved. The more common responses that are formed mainly by using contours, such as a bat, two dogs, a butterfly, a tree, and so on, are the best examples of answers for which there is no evidence of projection. Similarly, much or all of the discarding of potential answers, as a result of rank ordering or censorship, probably is not influenced much by the projective process. Most discarding of this nature is prompted more by attitudes and values of the person, and his or her perception of the test situation.

It is also difficult to reason that the traits or styles of the person are significantly impacted by projection as such. To the contrary, these are enduring characteristics that will be influential in directing the projective process when it does occur, and the same relationship exists between state influences and projection. When a state is intense and broadly encompassing, it can easily give rise to much rich projective material.

Projections can and do occur in the Rorschach and their presence often adds considerably to the interpretive yield of the test, but it is important to discriminate projected material from that which is not. Exner (1989) presented data suggesting that there are probably two types of projected responses. One type is formed during the Phase I operations and the second is formed during the Phase II or Phase III operations.

Projection and Phase I

The first type of projection that may occur in Rorschach answers apparently provokes some sort of distortion and/or misperception during the input and classification process. For instance, most people who are shown a ball, and asked what it is, will usually respond that it is a ball. The distal features of the object reduce the parameters of its definition rather sharply. It can be

identified functionally ("Something you throw"), or even syncretistically ("It's a thing that is made by humans"), but the range of appropriate responses is limited.

If a person who is not perceptually impaired misidentifies the ball by calling it an airplane, or a devil, or a kidney, it is not unreasonable to assume that some element of projection has occurred because the distal field has been markedly distorted and/or ignored. Even though distal elements in figure tend to facilitate certain responses or classes of response, thereby reducing the likelihood that projection will be involved in Phase I operations, classifications of blots or blot areas do occur in ways that violate or ignore those features. Technically, they are minus answers, and if they are not the product of some neurophysiologically related perceptual dysfunction, it seems logical to postulate that they are the result of a form of mediation in which internal psychological sets or operations have superseded a reality oriented translation of the field. Thus, a form of projection is involved.

Projection and Phases II and III

Although it is possible for projection to play a role during the Phase I classifications, it is much more likely that the impact of the projection, if it occurs, will be greater during the Phase II and III operations. During these operations, a type of imaginative projection is manifest when the person overelaborates on, or departs from, the stimulus field. For instance, most people who are asked to multiply two times two will answer four, but the answer could be embellished in a projected manner such as, *The answer is four, which is my favorite number because it represents the four seasons of the year that are so important to the cycle of life.*

An elaboration such as this reflects something about the person who gave it because there is nothing in the question posed that provokes it. In this example, the nature of the task, that is, multiplying numbers, reduces the probability that projection will occur. It can occur, but usually will not. In the

Rorschach, the parameters of both the task and the field are broader. While the limited ambiguity of the field and the nature of the task do not encourage projection, they do not prohibit or discourage the unique translations or embellishments that almost certainly have some projected properties. As a result, projected features are included when some answers are formed, and they ultimately appear in the response that is given.

The majority of answers that include this kind of projection do not require much interpretive translation because the embellishment is usually obvious by its departure from, or overelaboration of the field. In these responses, the object(s) is described in a specific or unique manner. Many such projections occur in movement answers, but many others occur in responses in which there is no movement, but in which the person embellishes his or her description of the object considerably. When they occur, these types of projected answers are very direct reflections concerning the feelings and/or behaviors of people.

During interpretation, it is important to recognize that not all of the responses, or all of the verbiage, represent projected material. Many records will contain more responses that contain no projections than those that do have that feature. In fact, it is uncommon, but not infrequent, to find records in which no projected material appears to exist. Usually these are closely guarded, relatively short protocols in which each response is limited to a few words. Those records are no less valid than the more elaborated protocols, but they lack the rich, idiosyncratic features of the person that appear in projected responses, and which can contribute much in fleshing out a description of the person.

SUMMARY

The nature of the Rorschach task provokes a complicated process, that includes processing, classification, conceptualization, decision making, and lays open the psychological door for projection to occur. When the reasonably simple standard

procedures for administering the test are faithfully employed, this process yields substantial information about habits, traits, and styles, the presence of states, and about many other variables that can be listed under the broad rubric encompassed by the term personality. While the process is complex, the test itself is not a complicated assessment tool for the adept user, especially when the user understands the nature of the test and how it works. However, the procedures for administering the test are also delicate. If they are violated by intent, or by the naivete of the user, the process of the test may be altered substantially, and the method can become reduced from a test to a composite of verbiage that, at best, will be of questionable interpretive value.

REFERENCES

- Abramson, L. S. (1951). The influence of set for area on the Rorschach test results. *Journal of Consulting Psychology, 15*, 337-342.
- Ames, L. B., Learned, J., Metraux, R. W., & Walker, R. N. (1952). *Child Rorschach responses*. New York: Hoeber-Harper.
- Ames, L. B., Metraux, R. W., & Walker, R. N. (1971). *Adolescent Rorschach responses*. New York: Brunner/Mazel.
- Armbruster, G. L., Miller, A. S., & Exner, J. E. (1974). *Rorschach responses of parachute trainees at the beginning of training and prior to the first jump*. Rorschach Workshops (Study No. 201, unpublished).
- Attneave, F. (1954). Some information aspects of visual perception. *Psychological Review, 61*, 183-193.
- Beck, S. J. (1945). *Rorschach's test II: A variety of personality pictures*. New York: Grune & Stratton.
- Beck, S. J., Beck, A. G., Levitt, E. E., & Molish, H. B. (1961). *Rorschach's test I: Basic processes* (3rd ed.). New York: Grune & Stratton.
- Cattell, R. B. (1951). Principles of design in "projective" or misperceptive tests of personality. In H. Anderson & G. Anderson (Eds.), *Projective techniques*. Englewood Cliffs, NJ: Prentice-Hall.
- Coffin, T. E. (1941). Some conditions of suggestion and suggestibility: A study of certain attitudinal and situational factors in the process of suggestion. *Psychological Monographs, 53* (Whole No. 241).

- Colligan, S. C. (1992). *Responses of nonpatients to a tachistoscopic presentation of the Rorschach*. Washington, DC: Society for Personality Assessment.
- Colligan, S. C., & Exner, J. E. (1985). Responses of schizophrenics and nonpatients to a tachistoscopic presentation of the Rorschach. *Journal of Personality Assessment*, 49, 129-136.
- Dahlstrom, W. G., Welsh, G. S., & Dahlstrom, L. E. (1972). *An MMPI handbook* (Vol. 1., rev.). Minneapolis: University of Minnesota Press.
- Dinoff, M. (1960). Subject awareness of examiner influence in a testing situation. *Journal of Consulting Psychology*, 24, 465.
- Dubrovner, R. J., VonLackum, W. J., & Jost, H. (1950). A study of the effect of color on productivity and reaction time in the Rorschach test. *Journal of Clinical Psychology*, 6, 331-336.
- Erdberg, S. P., & Shaffer, T. W. (1999). *International symposium on Rorschach nonpatient data: Findings from around the world*. Amsterdam: XVI International Congress of Rorschach and Projective Methods.
- Exner, J. E. (1959). The influence of chromatic and achromatic color in the Rorschach. *Journal of Projective Techniques*, 23, 418-425.
- Exner, J. E. (1961). Achromatic color in Cards IV and VI of the Rorschach. *Journal of Projective Techniques*, 25, 38-40.
- Exner, J. E. (1974). *The Rorschach: A Comprehensive System. Volume 1*. New York: Wiley.
- Exner, J. E. (1978). *The Rorschach: A Comprehensive System. Volume 2. Recent research and advanced interpretation*. New York: Wiley.
- Exner, J. E. (1980). But it's only an inkblot. *Journal of Personality Assessment*, 44, 562-577.
- Exner, J. E. (1983). Rorschach assessment. In I. B. Weiner (Ed.), *Clinical methods in psychology*. New York: Wiley.
- Exner, J. E. (1989). Searching for projection in the Rorschach. *Journal of Personality Assessment*, 53, 520-536.
- Exner, J. E. (1996). Critical bits and the Rorschach response process. *Journal of Personality Assessment*, 67, 464-477.
- Exner, J. E. (1999). The Rorschach: Measurement concepts and issues of validity. In S. B. Embretson & S. L. Herschberger (Eds.), *The new rules of measurement*. Mahwah, NJ: Erlbaum.
- Exner, J. E., & Armbruster, G. L. (1974). *Increasing R by altering instructions and creating a time set*. Rorschach Workshops (Study No. 209, unpublished).
- Exner, J. E., Armbruster, G. L., & Mittman, B. (1978). The Rorschach response process. *Journal of Personality Assessment*, 42, 27-38.
- Exner, J. E., Armbruster, G. L., & Viglione, D. (1978). The temporal stability of some Rorschach features. *Journal of Personality Assessment*, 42, 474-482.
- Exner, J. E., Armbruster, G. L., Walker, E. J., & Cooper, W. H. (1975). *Anticipation of elective surgery as manifest in Rorschach records*. Rorschach Workshops (Study No. 213, unpublished).
- Exner, J. E., & Bryant, E. L. (1974). *Rorschach responses of subjects recently divorced or separated*. Rorschach Workshops (Study No. 206, unpublished).
- Exner, J. E., Cohen, J. B., & Hillman, L. B. (1984). *A retest of 46 major depressive disorder patients at the termination of treatment*. Rorschach Workshops (Study No. 275, unpublished).
- Exner, J. E., & Leura, A. V. (1976). *Variations in ranking Rorschach responses as a function of situational set*. Rorschach Workshops (Study No. 221, unpublished).
- Exner, J. E., Martin, L. S., & Cohen, J. B. (1983). *Card by card response frequencies for patient and nonpatient populations*. Rorschach Workshops (Study No. 276, unpublished).
- Exner, J. E., Thomas, E. A., & Cohen, J. B. (1983). *The temporal consistency of test variables for 50 nonpatient adults after 12 to 14 months*. Rorschach Workshops (Study No. 281, unpublished).
- Exner, J. E., Thomas, E. A., & Mason, B. (1985). Children's Rorschachs: Description and prediction. *Journal of Personality Assessment*, 49, 13-20.
- Exner, J. E., & Weiner, I. B. (1982). *The Rorschach: A Comprehensive System. Volume 3: Assessment of children and adolescents*. New York: Wiley.
- Exner, J. E., & Weiner, I. B. (1995). *The Rorschach: A Comprehensive System. Volume 3: Assessment of children and adolescents* (2nd ed.). New York: Wiley.
- Exner, J. E., & Wylie, J. R. (1976). *Alterations in frequency of response and color articulation as related to alterations in the coloring of specific blot areas*. Rorschach Workshops (Study No. 219, unpublished).
- Exner, J. E., & Wylie, J. R. (1977). *Differences in the frequency of responses to the D1 area of Card X using an achromatic version*. Rorschach Workshops (Study No. 237, unpublished).

- Fisher, D. F., Monty, R. A., & Senders, J. W. (Eds.). (1981). *Eye movements: Cognition and visual perception*. Hillsdale, NJ: Erlbaum.
- Ford, M. (1946). *The Application of the Rorschach test to young children*. Duluth: University of Minnesota, Institute of Child Welfare.
- Frank, L. K. (1939). Projective methods for the study of personality. *Journal of Psychology*, 8, 389-413.
- Gibby, R. G. (1951). The stability of certain Rorschach variables under conditions of experimentally induced sets: I. The intellectual variables. *Journal of Projective Techniques*, 15, 3-26.
- Goetcheus, G. (1967). *The effects of instructions and examiners on the Rorschach*. Unpublished master's thesis, Bowling Green State University, Bowling Green, OH.
- Goodman, N. L. (1979). *Examiner influence on the Rorschach: The effect of sex, sex-pairing and warmth on the testing atmosphere*. Doctoral dissertation, Long Island University, Brooklyn, NY.
- Gross, L. (1959). Effects of verbal and nonverbal reinforcement on the Rorschach. *Journal of Consulting Psychology*, 23, 66-68.
- Haller, N., & Exner, J. E. (1985). The reliability of Rorschach variables for inpatients presenting symptoms of depression and/or helplessness. *Journal of Personality Assessment*, 49, 516-521.
- Halpern, F. (1953). *A clinical approach to children's Rorschachs*. New York: Grune & Stratton.
- Hersen, M., & Greaves, S. T. (1971). Rorschach productivity as related to verbal reinforcement. *Journal of Personality Assessment*, 35, 436-441.
- Hertz, M. R. (1934). The reliability of the Rorschach ink-blot test. *Journal of Applied Psychology*, 18, 461-477.
- Hochberg, J. (1981). Levels of perceptual organization. In M. Kubovy & J. R. Pomerantz (Eds.), *Perceptual organization*. Hillsdale, NJ: Erlbaum.
- Holzberg, J. D. (1960). Reliability re-examined. In M. Rickers-Ovsiankina (Ed.), *Rorschach psychology*. New York: Wiley.
- Horiuchi, H. (1961). A study of perceptual process of Rorschach cards by tachistoscopic method on movement and shading responses. *Journal of Projective Techniques*, 25, 44-53.
- Hutt, M., Gibby, R. G., Milton, E. O., & Pottharst, K. (1950). The effect of varied experimental "sets" upon Rorschach test performance. *Journal of Projective Techniques*, 14, 181-187.
- Klopfer, B., & Kelley, D. M. (1942). *The Rorschach technique*. Yonkers-on-Hudson, NY: World Books.
- Leura, A. V., & Exner, J. E. (1978). *Structural differences in the records of adolescents as a function of being tested by one's own teacher*. Rorschach Workshops (Study No. 265, unpublished).
- London, H., & Exner, J. E. (1978). *Dimensions of personality*. New York: Wiley.
- Magnussen, M. G. (1960). Verbal and nonverbal reinforcers in the Rorschach situation. *Journal of Clinical Psychology*, 16, 167-169.
- Martin, L. S., & Thomas, E. E. (1982). *Selection of preferred responses by high school students*. Rorschach Workshops (Study No. 278, unpublished).
- Matarazzo, J. D., & Mensh, I. N. (1952). Reaction time characteristics of the Rorschach test. *Journal of Consulting Psychology*, 16, 132-139.
- Meer, B. (1955). The relative difficulty of the Rorschach cards. *Journal of Projective Techniques*, 19, 43-53.
- Meer, B., & Singer, J. L. (1950). A note on the "father" and "mother" cards in the Rorschach inkblots. *Journal of Consulting Psychology*, 14, 482-484.
- Miale, F. R., & Harrower-Erikson, M. R. (1940). Personality structure in the psychoneuroses. *Rorschach Research Exchange*, 4, 71-74.
- Murray, H. A. (1938). *Explorations in personality*. New York: Oxford University Press.
- Neisser, U. (1976). *Cognition and reality*. New York: Appleton-Century-Crofts.
- Orange, A. (1953). Perceptual consistency as measured by the Rorschach. *Journal of Projective Techniques*, 17, 224-228.
- Pascal, G., Ruesch, H., Devine, D., & Suttell, B. (1950). A study of genital symbols on the Rorschach test: Presentation of method and results. *Journal of Abnormal and Social Psychology*, 45, 285-289.
- Phillips, L., & Smith, J. G. (1953). *Rorschach interpretation: Advanced technique*. New York: Grune & Stratton.
- Piotrowski, Z. (1957). *Perceptanalysis*. New York: Macmillan.
- Pomerantz, J. R., & Kubovy, M. (1981). Perceptual organization: An overview. In M. Kubovy & J. R. Pomerantz (Eds.), *Perceptual organization*. Hillsdale, NJ: Erlbaum.
- Rabin, A. I., & Sanderson, M. H. (1947). An experimental inquiry into some Rorschach procedures. *Journal of Clinical Psychology*, 3, 216-225.

- Shalit, B. (1965). Effects of environmental stimulation on the M, FM, and m responses in the Rorschach. *Journal of Projective Techniques and Personality Assessment*, 29, 228-231.
- Silva, D. (2002). The effect of color on the productivity in Card X of the Rorschach. *Rorschachiana*, 25, 123-138.
- Stein, M. I. (1949). Personality factors involved in the temporal development of Rorschach responses. *Rorschach Research Exchange*, 13, 355-414.
- Thomas, E. A., Alinsky, D., & Exner, J. E. (1982). *The stability of some Rorschach variables in 9-year-olds as compared with nonpatient adults*. Rorschach Workshop (Study No. 441, unpublished).
- Thomas, E. A., Exner, J. E., & Leura, A. V. (1977). *Differences in ranking responses by two groups of nonpatient adults as a function of set concerning the origins of the responses*. Rorschach Workshop (Study No. 251, unpublished).
- Vernon, P. E. (1933). The Rorschach inkblot test. II. *British Journal of Medical Psychology*, 13, 179-205.
- Wickes, T. A. (1956). Examiner influence in a testing situation. *Journal of Consulting Psychology*, 20, 23-26.

CHAPTER 12

Normative Data

The preceding chapter focused on the nature of the test by describing the psychological operations that are involved in forming and selecting responses. There is another perspective that contributes to an understanding of the test. It concerns the response rates by which the features of answers occur, and the relationship of those response rates to the numerous structural features of the test. The specific codes assigned to responses form the base from which this array of data evolves. They are used to identify the features of responses for which there is some empirical link to interpretation. In turn, the frequencies for the various coded features create the platform from which the variety of structural data, that forms the interpretive core of the test, are derived.

Ordinarily, normative (nonpatient) data that have been established for the test provide the source from which this information is gleaned. They are useful in providing descriptive information about groups, and offer reference points against which individual scores can be compared. Possibly most important is the basis that they provide for developing some general interpretive postulates, using the *deviation principle*, which focuses on findings different than expected.

THE ADULT NONPATIENT SAMPLE

Almost any normative samples will have limitations, and those formed to create tables for use with the Comprehensive System are no exceptions. The nonpatient records used to create those

samples were collected over a period of more than 10 years (1973 to 1986). As the number of records available increased, the tables were revised three times as various attempts to stratify the sample ensued (Exner, 1978, 1986, 1990, 2001; Exner, Weiner, & Schyler, 1976). A major revision occurred in 1990 because of findings indicating that brief records, that is, those containing less than 14 answers, are likely to be invalid (Exner, 1988). Those findings made it necessary to discard all records with less than 14 answers from previously developed samples. By that time, the pool of nonpatient records numbered more than 1,100, and the revised sample, selected using the stratification criteria of sex, geographic area, and socioeconomic level, included findings for 700 persons.

However, when the sample of 700 was selected, using the stratification criteria, more than 200 duplicate records were inadvertently included. They were detected in 1999, and the duplicate records were removed from the sample. The majority have been replaced with records from the nonpatient pool that had not been used previously, and which included demographic features that would not alter the stratification of the sample significantly. The result is the sample included here. It consists of data from the protocols of 600 adult nonpatients (Exner, 2001). It represents 300 males and 300 females, with 120 subjects from each of five geographic areas, Northeast, South, Midwest, Southwest, and West, and is partially stratified for socioeconomic level. Attempts were made to equalize the number of males and females

from each region but that was not always possible. Thus, the number of males and females are nearly equal for four regions, but the southwest group includes 72 females and 48 males while the midwest group contains 74 males and 46 females.

DESIGN FOR COLLECTING NONPATIENT DATA

The 600 protocols were collected by 42 examiners working within the constraints of problems created by subject recruitment and sample sizes. No examiner contributed more than 25 protocols to this sample. All of the subjects are, in one sense or another, volunteers. None had special reasons to be examined, and none have any significant psychiatric history. About 17% (101) of the subjects gave histories that included having eight or fewer contacts (the maximum allowable for inclusion) in their past with psychologists or educational counselors. Sixty-nine did so for purposes of academic or vocational counseling. Nineteen had been involved in brief marital counseling, and 13 had received brief supportive treatment following the loss of a family member or friend.

Volunteers were recruited by letters, distributed at workplaces or through cooperating organizations. The letters discounted any possibility of feedback concerning results and identified the project as one involving the standardization of

the test. The 600 subjects in this sample include 409 who volunteered through their places of work, usually under conditions of encouragement by supervisors or union leaders, and typically were provided with time away from work for the testing. An additional 153 persons volunteered through social or interest organizations to which they belonged, such as the PTA, Audubon groups, bowling leagues, and so on, and the remaining 38 were recruited through the assistance of social service agencies. None were financially reimbursed for their participation, although all received greeting cards of appreciation.

CHARACTERISTICS OF THE NONPATIENT SAMPLE

The mean age for the group is 31.73 (SD = 10.69; Median = 30; Mode = 22) with a range of 19 to 69 years. The subjects average 13.43 years of education with a range of 8 to 19 years. A breakdown for demographic variables is shown in Table 12.1.

The data for socioeconomic level have been collapsed in Table 12.1. The coding for SES was done using a nine-point variation of the Hollingshead and Redlich Scale. It includes three subgroups for each of the categories, upper, middle, and lower. Thus, SES 2 equals middle-upper class, SES 5 equals middle-middle class, and so on, with SES 9 being restricted to persons exclusively on

Table 12.1 Demography Variables for 600 Nonpatient Adults.

Marital Status			Age			Race		
Single	165	28%	18-25	195	33%	White	493	82%
Lives w/s.o	49	8%	26-35	240	40%	Black	60	10%
Married	270	45%	36-45	102	17%	Hispanic	36	6%
Separated	32	5%	46-55	32	5%	Asian	11	2%
Divorced	72	12%	56-65	23	4%			
Widowed	12	2%	OVER 65	8	1%			
Education			Residence			Socioeconomic Level		
Under 12 Yrs	32	5%	Urban	221	37%	Upper	54	9%
12 Yrs	163	27%	Suburban	256	43%	Middle	372	62%
13-15 Yrs	318	53%	Rural	123	21%	Lower	174	29%
16+ Yrs	87	15%						

public assistance. The sample contains no individuals from SES 1 (upper-upper) and the group shown in Table 12.1 as "Lower" includes 41 subjects from SES 9.

A multivariate model was used to search out significant differences among the three broad categories and among the subgroups. The only significant findings occur between the SES 9 subgroup and other subgroups. The SES 9 group does have a significantly higher average *Lambda* and significantly lower mean values for *EA* and *es*. Consequently, they have lower mean values for most of the determinants that contribute to *EA* and *es*. The data for all 600 persons were compared with a modified sample of 559 subjects that excluded all of the SES 9 subjects. Generally, it was found that the inclusion of that group in the sample does not alter any of the data significantly. Seemingly, this is because the SES 9 group represents only 7% of the total sample. Descriptive statistics for 113 variables for the adult nonpatient sample are shown in Table 12.2.

TABLE 12.2 DATA

Traditionally, most norms are presented in terms of arithmetic means and standard deviations, and those two measures are included for all of the variables in Table 12.2. These measures of central tendency provide useful reference points that are easily interpreted, especially when the distribution of scores approaches the Gaussian or normal-shaped curve. As such, they are useful when working with some Rorschach variables. These are the parametric variables that have broader ranges and a more diverse distribution of scores. However, as distributions deviate from normality, the possibilities increase that the mean, and particularly the standard deviation, will not provide a good representation of the true distribution of response rates and, as such, are not good sources from which to identify deviations.

This is especially the case when scores fall on a J-curve, that is, one in which most of the values fall on one, two, or three data points of the curve

and very few deviate from those points. At times, some interpreters and researchers tend to mislead themselves when attempting to identify deviations by using Rorschach nonpatient data as a guideline. This usually happens because of a failure to appreciate the distributions of scores for some of the codes.

The frequencies for some Rorschach codes fall into very narrow ranges, sometimes no more than three or four data points. But even when the range is longer, the frequencies for some variables tend to build up on one or two data points that are near zero. In fact, the frequencies for some Rorschach variables have such a restricted range that efforts at scaling or smoothing the distribution are futile. Thus, although the means for these J-Curve variables usually reflect their low frequency of occurrence, the standard deviations can be misleading, suggesting that the "average" range is greater than really is the case. This is especially true when a J-curve distribution of scores includes a few extreme outliers.

It is for this reason, as will be noted from Table 12.2 and other such tables included in this chapter and in the Appendix, that standard deviations are often shown in brackets. This signifies that the variable *is not* parametric, and standard deviations probably should not be used to estimate the expected or average range for the variable. Variables that have standard deviations in brackets should not be included in most types of parametric analyses.

An appreciation of response rates for both parametric and nonparametric variables is enhanced considerably if other measures are also used to describe frequency and score distributions. These include the frequency, range, median, mode, skewness, and kurtosis. The frequency data provide information concerning the number of persons in the sample who have given a particular kind of response. The range describes the spread of the values for a variable, the median provides information concerning the center of the spread, and the mode indicates which value appears most frequently in the distribution. The values for skewness and

Table 12.2 Descriptive Statistics for Nonpatient Adults (N = 600).

Variable	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
R	22.32	4.40	14.00	43.00	600	22.00	23.00	0.86	1.90
W	8.28	2.36	3.00	24.00	600	8.00	9.00	1.67	7.82
D	12.88	3.77	0.00	32.00	598	13.00	14.00	-0.14	1.72
Dd	1.16	[1.67]	0.00	15.00	370	1.00	0.00	4.00	24.01
S	1.57	[1.28]	0.00	10.00	514	1.00	1.00	1.99	7.61
DQ+	7.36	2.23	1.00	19.00	600	7.00	6.00	0.53	1.24
DQo	13.58	3.67	5.00	36.00	600	14.00	15.00	1.26	5.69
DQv	0.98	[1.26]	0.00	6.00	306	1.00	0.00	1.35	1.30
DQv/+	0.39	[0.61]	0.00	2.00	193	0.00	0.00	1.32	0.65
FQx+	0.71	[0.88]	0.00	5.00	290	0.00	0.00	1.33	2.19
FQxo	16.44	3.34	7.00	29.00	600	17.00	17.00	0.25	0.59
FQxu	3.49	2.03	0.00	16.00	580	3.00	3.00	1.50	5.33
FQx-	1.56	1.20	0.00	8.00	513	1.00	1.00	1.25	2.58
FQxNone	0.11	[0.37]	0.00	3.00	60	0.00	0.00	3.80	17.53
MQ+	0.44	[0.68]	0.00	3.00	210	0.00	0.00	1.52	1.98
MQo	3.57	1.84	0.00	8.00	595	3.00	3.00	0.42	-0.62
MQu	0.21	0.51	0.00	5.00	104	0.00	0.00	3.24	16.14
MQ-	0.07	[0.27]	0.00	2.00	35	0.00	0.00	4.48	21.40
MQNone	0.01	[0.08]	0.00	1.00	4	0.00	0.00	12.15	146.23
S-	0.25	[0.56]	0.00	3.00	117	0.00	0.00	2.71	8.25
M	4.30	1.95	1.00	10.00	600	4.00	3.00	0.48	-0.55
FM	3.74	1.31	0.00	9.00	598	4.00	4.00	0.15	0.58
m	1.28	0.99	0.00	6.00	458	1.00	1.00	0.62	0.61
FM+m	5.01	1.70	0.00	12.00	599	5.00	5.00	0.20	0.25
FC	3.56	1.88	0.00	9.00	580	3.00	3.00	0.38	-0.24
CF	2.41	1.31	0.00	7.00	564	2.00	3.00	0.29	-0.17
C	0.12	[0.37]	0.00	3.00	61	0.00	0.00	3.76	17.14
Cn	0.01	[0.08]	0.00	1.00	4	0.00	0.00	12.15	146.23
Sum Color	6.09	2.44	0.00	12.00	599	6.00	5.00	0.11	-0.66
WSumC	4.36	1.78	0.00	9.50	599	4.00	3.50	0.11	-0.54
Sum C'	1.49	[1.16]	0.00	10.00	490	1.00	1.00	1.41	5.96
Sum T	0.95	[0.61]	0.00	4.00	490	1.00	1.00	0.83	3.33
Sum V	0.28	[0.61]	0.00	5.00	124	0.00	0.00	2.71	9.58
Sum Y	0.61	[0.96]	0.00	10.00	262	0.00	0.00	3.53	23.46
Sum Shading	3.32	2.09	0.00	23.00	588	3.00	3.00	2.54	15.45
Fr+rf	0.11	[0.43]	0.00	4.00	48	0.00	0.00	4.98	30.45
FD	1.18	[0.94]	0.00	5.00	456	1.00	1.00	0.84	1.35
F	7.95	2.83	2.00	23.00	600	8.00	7.00	0.92	2.04
(2)	8.52	2.18	1.00	21.00	600	8.00	8.00	0.29	2.11
3r+(2)/R	0.40	0.09	0.03	0.87	600	0.39	0.33	0.47	3.86
Lambda	0.60	0.31	0.11	2.33	600	0.53	0.50	2.27	8.01
EA	8.66	2.38	2.00	18.00	600	9.00	9.50	-0.04	0.42
es	8.34	2.99	3.00	31.00	600	8.00	7.00	1.43	6.58
D Score	-0.03	0.97	-10.00	3.00	600	0.00	0.00	-3.06	24.34
AdjD	0.15	0.82	-5.00	3.00	600	0.00	0.00	-0.88	5.89
a (active)	6.44	2.23	0.00	14.00	599	6.00	6.00	0.32	0.01
p (passive)	2.90	1.64	0.00	9.00	572	3.00	2.00	0.57	0.03
Ma	2.90	1.57	0.00	8.00	583	3.00	2.00	0.52	-0.26
Mp	1.42	1.03	0.00	5.00	493	1.00	1.00	0.53	-0.13
Intellect	1.57	1.48	0.00	9.00	449	1.00	1.00	1.27	2.16
Zf	11.84	2.78	5.00	27.00	600	12.00	12.00	0.87	3.44
Zd	0.57	2.98	-11.50	9.50	560	0.50	-1.00	0.31	0.48
Blends	5.15	2.08	0.00	12.00	598	5.00	5.00	0.00	-0.26
Blends/R	0.24	0.10	0.00	0.67	598	0.24	0.26	0.35	0.65
Col-Shd Blends	0.45	[0.68]	0.00	5.00	215	0.00	0.00	1.70	4.12
Afr	0.67	0.16	0.23	1.29	600	0.67	0.67	0.35	0.65
Populars	6.58	1.39	3.00	10.00	600	6.00	6.00	-0.09	-0.47
XA%	0.92	0.06	0.57	1.00	600	0.94	0.96	-1.34	3.68

Table 12.2 Continued.

Variable	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
WDA%	0.94	0.06	0.54	1.00	600	0.95	1.00	-1.42	4.93
X+%	0.77	0.09	0.35	1.00	600	0.78	0.80	-0.86	2.33
X-%	0.07	0.05	0.00	0.43	513	0.05	0.04	1.41	4.56
Xu%	0.15	0.07	0.00	0.45	580	0.15	0.13	0.54	0.86
Isolate/R	0.19	0.09	0.00	0.60	588	0.18	0.16	0.51	0.41
H	3.21	1.71	0.00	9.00	595	3.00	2.00	0.97	0.84
(H)	1.22	1.02	0.00	6.00	432	1.00	1.00	0.65	0.48
Hd	0.84	[1.02]	0.00	7.00	336	1.00	0.00	1.98	6.60
(Hd)	0.21	[0.50]	0.00	4.00	109	0.00	0.00	2.90	11.25
Hx	0.03	[0.23]	0.00	4.00	14	0.00	0.00	11.29	164.54
All H Cont	5.49	1.75	1.00	15.00	600	5.00	5.00	0.59	1.24
A	7.96	2.25	3.00	25.00	600	8.00	7.00	1.06	5.03
(A)	0.27	[0.54]	0.00	3.00	137	0.00	0.00	2.31	6.38
Ad	2.30	[1.20]	0.00	9.00	571	2.00	2.00	0.79	2.85
(Ad)	0.10	[0.34]	0.00	2.00	53	0.00	0.00	3.57	13.07
An	0.54	[0.77]	0.00	4.00	243	0.00	0.00	1.59	2.81
Art	0.90	0.91	0.00	5.00	363	1.00	0.00	0.98	1.20
Ay	0.35	[0.52]	0.00	3.00	198	0.00	0.00	1.23	1.38
Bl	0.20	[0.46]	0.00	3.00	104	0.00	0.00	2.40	5.80
Bt	2.37	1.32	0.00	6.00	551	2.00	3.00	0.17	-0.29
Cg	1.41	1.09	0.00	5.00	482	1.00	1.00	0.73	0.29
Cl	0.14	[0.38]	0.00	2.00	78	0.00	0.00	2.67	6.76
Ex	0.20	[0.40]	0.00	2.00	119	0.00	0.00	1.57	0.74
Fi	0.56	[0.77]	0.00	4.00	240	0.00	0.00	1.09	0.22
Food	0.21	[0.47]	0.00	3.00	112	0.00	0.00	2.26	5.03
Ge	0.05	[0.24]	0.00	2.00	27	0.00	0.00	5.18	28.97
Hh	0.99	0.90	0.00	4.00	407	1.00	1.00	0.85	0.57
Ls	0.86	0.79	0.00	3.00	382	1.00	1.00	0.60	-0.23
Na	0.36	[0.63]	0.00	6.00	178	0.00	0.00	2.35	11.12
Sc	1.12	[1.15]	0.00	6.00	388	1.00	0.00	1.22	1.96
Sx	0.11	[0.47]	0.00	5.00	46	0.00	0.00	6.16	48.09
Xy	0.05	[0.24]	0.00	2.00	29	0.00	0.00	4.80	24.46
Idio	1.36	[1.32]	0.00	7.00	404	1.00	0.00	1.03	1.43
DV	0.59	[0.78]	0.00	4.00	266	0.00	0.00	1.36	1.77
INCOM	0.56	[0.78]	0.00	4.00	263	0.00	0.00	1.74	3.91
DR	0.39	[0.69]	0.00	4.00	175	0.00	0.00	1.97	4.15
FABCOM	0.27	[0.52]	0.00	3.00	141	0.00	0.00	1.85	3.02
DV2	0.00	[0.06]	0.00	1.00	2	0.00	0.00	17.27	297.49
INC2	0.02	[0.13]	0.00	1.00	10	0.00	0.00	7.57	55.49
DR2	0.01	[0.11]	0.00	1.00	8	0.00	0.00	8.50	70.61
FAB2	0.03	[0.16]	0.00	1.00	16	0.00	0.00	5.89	32.81
ALOG	0.04	[0.20]	0.00	2.00	21	0.00	0.00	5.58	33.07
CONTAM	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	1.91	1.47	0.00	7.00	496	2.00	1.00	0.80	0.56
Lvl 2 Sp Sc	0.06	[0.25]	0.00	2.00	34	0.00	0.00	4.33	19.52
WSum6	4.48	4.08	0.00	28.00	496	4.00	0.00	1.42	3.25
AB	0.16	[0.43]	0.00	3.00	84	0.00	0.00	2.82	8.39
AG	1.11	1.15	0.00	5.00	380	1.00	0.00	1.02	0.60
COP	2.00	1.38	0.00	6.00	498	2.00	2.00	0.25	-0.63
CP	0.01	[0.09]	0.00	1.00	5	0.00	0.00	10.84	115.98
GOODHR	4.93	1.78	0.00	10.00	598	5.00	5.00	0.36	0.02
POORHR	1.53	1.46	0.00	8.00	431	1.00	1.00	1.25	2.30
MOR	0.79	[0.89]	0.00	4.00	321	1.00	0.00	1.01	0.60
PER	0.92	[0.91]	0.00	5.00	385	1.00	1.00	1.33	3.39
PSV	0.07	[0.25]	0.00	2.00	38	0.00	0.00	3.84	14.28

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

kurtosis concern the actual shape of the curve.¹ This composite of eight measures offers a much better picture of distributions than any one used alone, or even a composite of two or three.

In Table 12.2, the standard deviations for nearly half of the variables are shown in brackets, indicating that the frequencies are not normally distributed. If the data for any of those variables are to be used as a source from which to identify deviations, the Median, Mode, Frequency, and Range are the best starting points. The means might contribute some additional information but, generally, the standard deviations should be used very cautiously, if at all.

For example, the data in Table 12.2 show a mean for *SumC'* as 1.49 and a bracketed standard deviation of 1.16. If these two measures are applied concretely, they suggest that two-thirds of the 600 persons in the sample gave between .33 and 2.65 *C'* responses. If the habit of "rounding" is used, it could be concluded that the "average range" for *SumC'* is 0 to 3, or 1 to 3. But that is not consistent with other data. The median is 1, indicating that more than half of the sample have *SumC'* values of either 0 or 1. The mode is also 1, but the range is extensive, from 0 to 10. The frequency is 490, indicating that 82% of the sample gave at least one *C'* answer, while 18% gave none. The skewness is + 1.41, indicating a large number of low scores, and the kurtosis is + 5.96, revealing a large cluster of scores at one or two data points. When the skewness and kurtosis values are considered in light of the other measures, there is little doubt that a J-curve exists, for which the

standard deviation has been increased by some outlier scores. What might be the best estimate of an average range for *SumC'*? The collective findings that the median and mode are both 1, the mean is less than 2, and only 18% of the sample have values of 0, suggest that scores of 0, or greater than 2, could both be considered "deviant." Thus, the average range is probably best identified as 1 to 2.

The frequency data will often provide a quick source of determining whether the median and mode are the best sources for identifying the expected response rates. The variables *DQv+/*, *MQ+*, *C*, and *Fr+rF* are useful examples. The first two have frequencies showing that only about one-third of the sample gave at least one *DQv+/* or *MQ+* response. The median and mode for both variables is 0. Therefore, the expected response rate for both is 0. The data concerning *C* and *Fr+rF* are more obvious. The frequency data for both indicate that about 10% or less of the nonpatient subjects gave one or more of those answers. Again, the median and mode are both 0, leading to the conclusion that, usually, neither are expected to appear in a protocol.

Although the data in Table 12.2 provide interesting information about response rates, those data are *not* the basic source from which most interpretive postulates have been derived. Some of the Table 12.2 data can be quite misleading unless clarified by other information concerning the distributions of scores. The distribution for the *EB* (*Erlebnistypus*) offers a good illustration of this. It involves the relation between *M* and *SumC*, both of which are parametric variables. Those naive to the Rorschach might be prone to estimate the "average" *EB* by reviewing the normative data for those variables. The data in Table 12.2 indicate that the mean for *M* is 4.30 (SD = 1.95; Median = 4; Mode = 3), and the mean for *SumC* is 6.09 (SD = 2.44; Median 6.0; Mode = 5.0).

Either of two erroneous conclusions could be drawn from those data. One is that the majority of subjects in the sample are extratensive because the mean for *SumC* exceeds the mean for *M* by

¹ The perfectly bell-shaped normal distribution will have a skewness value of .00. If the curve is positively skewed, that is, with the greater proportion of the scores being low or to the left of center, the skewness value will be positive. If the curve is negatively skewed, the value will be shown as a minus. The kurtosis value indicates something about the height of the curve. In the perfect bell-shaped distribution the kurtosis is .00. If the curve is *leptokurtic*, that is, with a piling up of scores in one region, the kurtosis will be positive, whereas if the curve is *platykurtic*, with the scores being more or less evenly distributed over a broad range, the kurtosis value will be minus.

nearly two points. The second is that most people in the sample are ambitents because there is considerable overlap among the variances for the two variables. Neither conclusion is correct. This is because the distributions for some critical variables tend to be bimodal, or even trimodal. These unusual distributions generally are created because of differences in response styles such as are represented by the *EB* (introversive, extratensive, ambitent), or by *Lambda* (avoidant).

By definition, introversives give more human movement answers than chromatic color responses while extratensives do the reverse. When the data for *M* and *WSumC* for these subgroups are merged in a composite data set, the resulting descriptive statistics for both variables tend to be spurious. They do not adequately represent either introversives or extratensives. This matter would not be important if only two variables were involved and were relevant to only two response styles. However, introversives and extratensives differ substantially in the frequencies by which they report numerous determinants, contents, and Special Scores. These differences often become more clouded when data for ambitents are added into a matrix, and the matter becomes even more complex because of the *Lambda* variable.

Lambda represents the proportion of Pure *F* answers in a protocol. Pure *F* responses are economical, and some are found in almost every record. When the frequency of Pure *F* answers is substantial, yielding *Lambda* values of 1.0 or greater, the frequency of other determinants and some additional test variables is typically lowered. At times, a high *Lambda* value will simply represent a form of test taking defensiveness, but many high *Lambda* records represent a response style that is as potent, or even moreso, than the introversive or extratensive response styles identified by the *EB*. When data from high *Lambda* records are merged with those for introversives, ambitents, and extratensives the likelihood of misleading descriptive statistics increases. While the data set reflects the findings for the total group, it provides only hints about features

common to each of the subgroups. Table 12.3 includes some important information concerning the distribution of scores for the total nonpatient sample, with a particular focus on cutoff scores that are often critical in interpreting ratios and percentages, or defining the existence of the four basic response styles.

As will be noted, the Table 12.3 data reveal that about 33% of the sample consists of introversives, 38% are extratensives, 19% are ambitents, and 10% have a high *Lambda* (Avoidant Style). When the high *Lambda* subjects are excluded from the sample and the three *EB* subgroups are compared for the variables in Table 12.2, some important findings are noted. These are shown in Table 12.4, and indicate that significant differences exist among the three groups for all but one (CP) of the 25 variables listed. Some of the differences are rather dramatic. For example, introversive persons give an average number of pure *H* responses that is nearly twice the average number given by ambitents or extratensives. They also average about one-third more GHR answers than either of the other groups. Nearly 30% of extratensives give blood responses as contrasted with about 15% of ambitents, and less than 5% of introversives. Conversely, only about 10% of extratensives give explosion responses, whereas 22% of ambitents and 31% of introversives give such answers. Color Shading Blends appear in about half of the extratensive protocols, but in less than 30% of the ambitent or introversive records.

Most of the variables shown in Table 12.4 contribute directly to the calculation of many of the ratios, percentages, and other indices that form the core of interpretation. Thus, interpretive rules concerning those variables have been formulated with regard to the four basic response styles. Although the total data set, presented in Tables 12.2 and 12.3, will often serve as an adequate base for some research purposes, it is generally more realistic to compare single records to data that are *response style specific*. In this context, descriptive statistics for the nonpatient sample, subdivided by the response style categories of introversive,

Table 12.3. Frequencies for 36 Variables for Nonpatient Adults ($N = 600$).

Table 12.3. Frequencies for 36 variables for Nonpatient Adults (N = 600).									
Ratios, Percentages and Special Indices									
Styles			Form Quality Deviations						
Introversive	199	33%			XA% > .89		443	74%	
Pervasive	52	9%			XA% < .70		2	0%	
Ambitient	116	19%			WDA% < .85		29	5%	
Extratensive	227	38%			WDA% < .75		3	1%	
Pervasive	59	10%			X+% < .55		9	2%	
Avoidant	58	10%			Xu% > .20		129	22%	
					X-% > .20		15	3%	
					X-% > .30		2	0%	
D-Scores			FC:CF+C RATIO						
D Score > 0	100	17%			FC > (CF+C) + 2		151	25%	
D Score = 0	420	70%			FC > (CF+C) + 1		245	41%	
D Score < 0	80	13%			(CF+C) > FC+1		70	12%	
D Score < -1	29	5%			(CF+C) > FC+2		24	4%	
Adj D Score > 0	151	25%							
Adj D Score = 0	389	65%							
Adj D Score < 0	60	10%							
Adj D Score < -1	21	4%							
Zd > +3.0 (Overincorp)	100	17%			S-Constellation Positive		0	0%	
Zd < -3.0 (Underincorp)	39	7%			HVI Positive		18	3%	
PTI = 5	0	0%	DEPI = 7	2	0%	OBS Positive	8	1%	
PTI = 4	0	0%	DEPI = 6	4	1%	CDI = 5	2	0%	
PTI = 3	1	0%	DEPI = 5	24	4%	CDI = 4	21	4%	
Miscellaneous Variables									
R < 17	58	10%			(2AB+Art+Ay) > 5		12	2%	
R > 27	55	9%			Populars < 4		7	1%	
DQv > 2	73	12%			Populars > 7		184	31%	
S > 2	86	14%			COP = 0		102	17%	
Sum T = 0	110	18%			COP > 2		213	36%	
Sum T > 1	65	11%			AG = 0		220	37%	
3r+(2)/R < .33	80	13%			AG > 2		74	12%	
3r+(2)/R > .44	140	23%			MOR > 2		26	4%	
Fr + rF > 0	48	8%			Level 2 Sp.Sc. > 0		34	6%	
PureC > 0	61	10%			GHR > PHR		526	88%	
PureC > 1	7	1%			Pure H < 2		71	12%	
Afr < .40	18	3%			Pure H = 0		5	1%	
Afr < .50	66	11%			p > a+1		11	2%	
(FM+m) < Sum Shading	87	15%			Mp > Ma		82	14%	

Table 12.4 Comparisons for 25 Variables between 227 Extratensive, 199 Introversive, and 116 Ambitent Nonpatient Adults with Protocols in Which Lambda < 1.0.

Variable	Extratensives				Introversives				Ambitents			
	Mean	SD	Freq	Mode	Mean	SD	Freq	Mode	Mean	SD	Freq	Mode
<i>M</i>	2.99	0.92	227	3.00	6.42 ^a	1.26	199	7.00	3.95 ^b	1.36	116	3.00
<i>FC</i>	4.65 ^a	2.80	224	5.00	3.03	1.49	193	3.00	3.12	1.77	111	2.00
<i>CF</i>	3.45 ^a	1.06	226	3.00	1.65	0.82	185	2.00	1.91	1.13	105	1.00
<i>C</i>	0.19	[0.47]	37 ^c	0.00	0.02	[0.12]	3	0.00	0.15	[0.40]	15	0.00
<i>WSumC</i>	8.28 ^a	1.65	227	8.00	4.70	1.65	198	5.00	5.20	2.02	116	4.00
<i>FM+m</i>	5.07	1.59	227	5.00	3.72	1.21	199	5.00	5.34 ^c	1.69	116	5.00
<i>EA</i>	9.04	1.82	227	8.50	9.61 ^b	2.17	199	9.50	7.64 ^a	2.53	116	7.50
<i>es</i>	8.53	2.48	227	7.00	8.21	2.72	199	7.00	9.42 ^c	3.65	116	9.00
<i>SumY</i>	0.71	[0.77]	124 ^c	0.00	0.45	[0.83]	65	0.00	0.80	[1.42]	57	0.00
<i>Sum Shad</i>	3.46	1.61	225	3.00	3.01	1.88	194	3.00	4.09 ^c	2.95	116	3.00
<i>Blends</i>	5.86	1.75	226	6.00	4.83 ^b	2.11	198	5.00	5.34	2.01	116	5.00
<i>Col-Shd Bl</i>	0.70	[0.83]	116 ^d	0.00	0.29	[0.52]	52	0.00	0.33	[0.54]	34	0.00
<i>Afr</i>	0.71 ^a	0.16	227	0.91	0.64	0.15	199	0.67	0.63	0.16	116	0.60
<i>H</i>	2.41	0.90	227	2.00	4.79 ^a	1.71	199	5.00	2.55	1.23	113	3.00
<i>All H Cont</i>	4.76	1.43	227	5.00	6.69 ^a	1.51	199	7.00	5.09	1.75	116	5.00
<i>Bt</i>	2.97 ^a	1.30	220	6.00	2.03	1.25	177	5.00	1.94	1.14	100	4.00
<i>Bl</i>	0.35	[0.58]	68 ^d	0.00	0.06	[0.27]	9	0.00	0.18	[0.43]	19	0.00
<i>Ex</i>	0.10	[0.30]	23	0.00	0.31	[0.46]	61 ^d	0.00	0.23	[0.44]	26	0.00
<i>Fi</i>	0.75	[0.88]	110 ^d	0.00	0.31	[0.41]	61	0.00	0.48	[0.70]	43	0.00
<i>Food</i>	0.36	[0.58]	71 ^d	0.00	0.10	[0.30]	20	0.00	0.16	[0.44]	16	0.00
<i>Ls</i>	0.76	0.72	138	1.00	1.14	0.85	148 ^d	1.00	0.72	0.79	65	1.00
<i>AB</i>	0.23	[0.47]	63 ^d	0.00	0.12	[0.42]	17	0.00	0.10	[0.31]	12	0.00
<i>COP</i>	1.83	1.23	189	2.00	2.45 ^a	1.54	170	2.00	1.82	1.25	94	2.00
<i>CP</i>	0.02	[0.15]	5	0.00	0.00	[0.00]	0	0.00	0.00	[0.00]	0	0.00
<i>GHR</i>	4.32	1.33	227	4.00	6.29 ^a	1.69	199	6.00	4.37	1.65	115	4.00

^a = F ratio indicates a significant difference from both other groups ($p < .001$).

^b = Scheffe procedure indicates significant difference from extratensive group ($p < .001$).

^c = Scheffe procedure indicates significant difference from introversive group ($p < .001$).

^d = Chi Square indicates a proportional frequency different from both other groups ($p < .001$).

^e = Chi Square indicates a proportional frequency different from introversive group ($p < .001$).

of 18 and a mode of 14, as compared to a mean *R* of 22.32, with a median of 22 and a mode of 23 for the sample of 600. *Lambda* values greater than 0.99 occurred for 41% of the subjects in the Shaffer et al. sample as compared to only 10% in the sample of 600. Some other substantial differences between the two samples include means of .48 versus .67 for the *Afr*; .78 versus .92 for the *XA%*, and .82 versus .94 for the *WDA%*. The differences between the samples for the *XA%* and *WDA%* reflect differences for the other variables related to form use. The means are .51 versus .77 for the *X+*%; .28 versus .15 for the *Xu*%; and .21 versus .07 for the *X-*%. Only 44 (36%) persons in the Shaffer et al. sample gave at least one texture answer, while 490 (82%) of those in the larger

sample did so. Nearly 30% of the persons in the Shaffer et al. sample gave at least one reflection response as contrasted with only 8% in the sample of 600. In addition, the means for *WSumC*, *EA*, and *es* in the Shaffer et al. sample are about two points lower than those for the sample of 600. Interestingly, when the Shaffer et al. sample was increased to include 283 nonpatients (Shaffer & Erdberg, 2001), only modest changes in the values for these variables were noted.

The differences noted between the Shaffer et al. data and those shown in Tables 12.2 and 12.3, plus the fact that some of those data were collected more than 20 years ago, prompted the Research Council of the Rorschach Research Foundation (Rorschach Workshops) to recommend

Table 12.5 Descriptive Statistics for Adult Introverts ($N = 199$).

Variable	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
AGE	33.23	11.39	19.00	69.00	199	31.00	26.00	1.26	1.30
Years Educ	13.69	1.52	8.00	18.00	199	14.00	14.00	0.08	0.05
R	22.90	4.84	14.00	38.00	199	23.00	20.00	0.63	0.56
W	8.62	2.59	3.00	20.00	199	8.00	8.00	1.58	6.26
D	13.01	3.88	0.00	22.00	198	13.00	14.00	-0.06	0.96
Dd	1.27	[1.34]	0.00	9.00	137	1.00	1.00	1.97	7.36
S	1.51	[1.24]	0.00	7.00	165	1.00	1.00	1.35	2.48
DQ+	8.54	2.31	4.00	19.00	199	9.00	9.00	0.15	1.12
DQo	12.77	3.61	5.00	26.00	199	12.00	11.00	0.68	0.40
DQv	1.20	[1.41]	0.00	5.00	111	1.00	0.00	0.97	-0.27
DQv/+	0.39	[0.61]	0.00	2.00	65	0.00	0.00	1.30	0.63
FQx+	0.79	[0.99]	0.00	5.00	99	0.00	0.00	1.46	2.71
FQxo	17.00	3.68	8.00	27.00	199	17.00	18.00	0.36	0.52
FQxu	3.64	1.94	0.00	14.00	196	4.00	4.00	1.50	5.39
FQx-	1.45	1.17	0.00	6.00	163	1.00	1.00	0.98	0.85
FQxNone	0.02	[0.14]	0.00	1.00	4	0.00	0.00	6.89	45.95
MQ+	0.52	[0.76]	0.00	3.00	78	0.00	0.00	1.47	1.77
MQo	5.41	1.36	1.00	8.00	199	5.00	6.00	-0.33	0.12
MQu	0.39	0.69	0.00	5.00	62	0.00	0.00	2.52	10.38
MQ-	0.09	[0.35]	0.00	2.00	13	0.00	0.00	4.33	19.06
MQNone	0.01	[0.10]	0.00	1.00	2	0.00	0.00	9.89	96.96
S-	0.20	[0.48]	0.00	3.00	34	0.00	0.00	3.01	11.58
M	6.42	1.26	2.00	10.00	199	7.00	7.00	-0.02	0.27
FM	3.72	1.21	1.00	6.00	199	4.00	4.00	0.07	-0.31
m	1.47	0.94	0.00	4.00	164	2.00	2.00	0.06	-0.40
FM+m	5.20	1.49	1.00	9.00	199	5.00	5.00	0.17	-0.32
FC	3.03	1.49	0.00	7.00	193	3.00	3.00	0.31	-0.13
CF	1.65	0.82	0.00	5.00	185	2.00	2.00	0.17	0.66
C	0.02	[0.12]	0.00	1.00	3	0.00	0.00	8.02	62.95
Cn	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sum Color	4.70	1.65	0.00	9.00	198	5.00	5.00	0.08	0.39
WSumC	3.19	1.07	0.00	6.00	198	3.50	3.50	-0.18	0.36
Sum C'	1.33	[1.13]	0.00	8.00	146	1.00	2.00	1.21	4.89
Sum T	0.93	[0.54]	0.00	3.00	164	1.00	1.00	0.32	2.08
Sum V	0.31	[0.53]	0.00	2.00	54	0.00	0.00	1.53	1.44
Sum Y	0.45	[0.83]	0.00	6.00	65	0.00	0.00	3.06	13.94
Sum Shading	3.01	1.88	0.00	13.00	194	3.00	3.00	1.50	4.30
Fr+rF	0.11	[0.49]	0.00	4.00	14	0.00	0.00	5.97	41.10
FD	1.30	[0.95]	0.00	4.00	154	1.00	1.00	0.31	-0.31
F	7.46	2.56	2.00	15.00	199	7.00	7.00	0.48	-0.39
(2)	8.99	2.06	3.00	14.00	199	9.00	8.00	0.38	0.28
3r+(2)/R	0.41	0.09	0.25	0.87	199	0.40	0.38	1.81	6.56
Lambda	0.50	0.17	0.11	0.92	199	0.50	0.33	0.40	-0.17
EA	9.61	2.17	2.00	16.00	199	9.50	9.50	-0.05	0.47
es	8.21	2.72	3.00	21.00	199	8.00	7.00	0.96	2.39
D Score	0.17	0.74	-3.00	2.00	199	0.00	0.00	-0.57	4.25
AdjD	0.41	0.73	-3.00	2.00	199	0.00	0.00	-0.25	2.31
a (active)	7.84	2.09	2.00	14.00	199	8.00	6.00	0.29	-0.30
p (passive)	3.79	1.72	0.00	9.00	192	4.00	5.00	-0.08	-0.29
Ma	4.41	1.27	1.00	8.00	199	4.00	4.00	-0.13	0.08
Mp	2.03	1.12	0.00	5.00	181	2.00	3.00	-0.01	-0.50
Intellect	1.35	1.47	0.00	9.00	136	1.00	1.00	1.67	4.02
Zf	12.80	2.98	6.00	25.00	199	13.00	13.00	0.42	2.52
Zd	-0.12	3.08	-6.50	8.50	190	-0.50	-3.00	0.39	-0.28
Blends	4.83	2.11	0.00	11.00	198	5.00	5.00	0.24	-0.27
Blends/R	0.22	0.10	0.00	0.57	198	0.20	0.25	0.63	0.24
Col-Shd Blends	0.29	[0.52]	0.00	2.00	52	0.00	0.00	1.56	1.57
Afr	0.64	0.15	0.23	1.14	199	0.67	0.67	0.33	1.03
Populars	6.54	1.36	3.00	10.00	199	6.00	6.00	0.07	-0.11

Table 12.5 Continued.

Variable	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
XA%	0.94	0.05	0.69	1.00	199	0.95	0.95	-1.39	4.25
WDA%	0.95	0.05	0.69	1.00	199	0.96	1.00	-1.50	3.83
X+%	0.78	0.09	0.35	1.00	199	0.79	0.80	-1.36	4.66
X-%	0.06	0.05	0.00	0.31	163	0.05	0.05	1.43	4.47
Xu%	0.16	0.07	0.00	0.45	196	0.15	0.15	0.87	1.92
Isolate/R	0.19	0.10	0.00	0.60	193	0.17	0.13	0.69	1.00
H	4.79	1.71	1.00	9.00	199	5.00	5.00	0.30	-0.09
(H)	1.27	1.19	0.00	4.00	134	1.00	0.00	0.66	-0.46
Hd	0.48	[0.85]	0.00	5.00	65	0.00	0.00	2.25	5.99
(Hd)	0.15	[0.40]	0.00	2.00	27	0.00	0.00	2.66	6.77
Hx	0.03	[0.16]	0.00	1.00	5	0.00	0.00	6.11	35.75
All H Cont	6.69	1.51	2.00	15.00	199	7.00	7.00	0.72	4.14
A	7.91	2.07	3.00	14.00	199	8.00	8.00	0.22	0.07
(A)	0.29	[0.56]	0.00	3.00	48	0.00	0.00	2.19	5.43
Ad	2.34	[1.07]	0.00	5.00	189	2.00	2.00	-0.13	-0.17
(Ad)	0.08	[0.29]	0.00	2.00	15	0.00	0.00	3.71	14.19
An	0.59	[0.79]	0.00	4.00	86	0.00	0.00	1.31	1.60
Art	0.72	0.84	0.00	4.00	103	1.00	0.00	1.12	1.28
Ay	0.38	[0.53]	0.00	3.00	73	0.00	0.00	1.11	1.47
Bl	0.06	[0.27]	0.00	2.00	9	0.00	0.00	5.35	30.64
Bt	2.03	1.25	0.00	5.00	177	2.00	3.00	0.09	-0.73
Cg	1.73	1.27	0.00	5.00	163	1.00	1.00	0.32	-0.79
Cl	0.18	[0.45]	0.00	2.00	31	0.00	0.00	2.48	5.68
Ex	0.31	[0.46]	0.00	1.00	61	0.00	0.00	0.84	-1.30
Fi	0.46	[0.66]	0.00	2.00	72	0.00	0.00	1.15	0.10
Food	0.10	[0.30]	0.00	1.00	20	0.00	0.00	2.67	5.22
Ge	0.03	[0.16]	0.00	1.00	5	0.00	0.00	6.11	35.75
Hh	1.24	1.00	0.00	4.00	151	1.00	1.00	0.70	0.35
Ls	1.14	0.85	0.00	3.00	148	1.00	1.00	0.13	-0.86
Na	0.41	[0.75]	0.00	6.00	60	0.00	0.00	2.88	14.66
Sc	1.09	[1.09]	0.00	6.00	136	1.00	1.00	1.44	2.92
Sx	0.10	[0.49]	0.00	5.00	12	0.00	0.00	6.89	57.06
Xy	0.03	[0.16]	0.00	1.00	5	0.00	0.00	6.11	35.75
Idio	1.42	[1.22]	0.00	7.00	141	1.00	0.00	0.71	0.97
DV	0.70	[0.89]	0.00	4.00	94	0.00	0.00	1.18	0.78
INCOM	0.51	[0.77]	0.00	4.00	76	0.00	0.00	1.77	3.46
DR	0.30	[0.61]	0.00	3.00	45	0.00	0.00	2.17	4.52
FABCOM	0.27	[0.50]	0.00	3.00	49	0.00	0.00	1.92	4.47
DV2	0.01	[0.07]	0.00	1.00	1	0.00	0.00	14.10	199.00
INC2	0.01	[0.10]	0.00	1.00	2	0.00	0.00	9.89	96.96
DR2	0.03	[0.17]	0.00	1.00	6	0.00	0.00	5.53	28.95
FAB2	0.05	[0.21]	0.00	1.00	9	0.00	0.00	4.41	17.63
ALOG	0.02	[0.16]	0.00	2.00	2	0.00	0.00	11.30	133.83
CONTAM	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	1.88	1.54	0.00	7.00	155	2.00	2.00	0.70	0.10
Lvl 2 Sp Sc	0.09	[0.32]	0.00	2.00	16	0.00	0.00	3.76	14.75
WSum6	4.30	4.09	0.00	28.00	155	4.00	0.00	1.56	4.97
AB	0.12	[0.42]	0.00	2.00	17	0.00	0.00	3.61	12.41
AG	1.16	1.17	0.00	5.00	132	1.00	1.00	1.09	0.81
COP	2.45	1.54	0.00	6.00	170	2.00	2.00	0.04	-0.76
CP	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
GOODHR	6.24	1.69	2.00	10.00	199	6.00	5.00	-0.04	-0.49
POORHR	1.35	1.45	0.00	7.00	126	1.00	0.00	1.15	1.12
MOR	0.93	[0.98]	0.00	4.00	114	1.00	0.00	0.75	-0.23
PER	0.98	[0.87]	0.00	5.00	133	1.00	1.00	0.80	1.51
PSV	0.04	[0.19]	0.00	1.00	7	0.00	0.00	5.08	24.10

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

Table 12.6 Frequencies for 36 Variables for Adult Introverts ($N = 199$).

Table 12.3 Frequencies for 50 Variables for Adult Introverts (N = 1000)									
Demography Variables									
Marital Status			Age			Race			
			18-25	26-35	36-45	46-55	56-65	Over 65	
Single	47	24%	18-25	56	28%	White	172	86%	
Lives w/S.O.	13	7%	26-35	75	38%	Black	16	8%	
Married	99	50%	36-45	43	22%	Hispanic	5	3%	
Separated	14	7%	46-55	11	6%	Asian	6	3%	
Divorced	21	11%	56-65	10	5%				
Widowed	5	3%	Over 65	4	2%				
Sex			Education						
			Under 12	4	2%				
			12 Years	47	24%				
			13-15 Yrs	112	56%				
Male	104	52%							
Female	95	48%							
			16+ Yrs	36	18%				
Ratios, Percentages, and Special Indices									
Styles			Form Quality Deviations						
			XA% > .89	167	84%				
Introversive	199	100%	XA% < .70	1	1%				
Pervasive	52	26%	WDA% < .85	6	3%				
Ambitient	0	0%	WDA% < .75	1	1%				
Extratensive	0	0%	X+% < .55	3	2%				
Pervasive	0	0%	Xu% > .20	40	20%				
Avoidant	0	0%	X-% > .20	4	2%				
			X-% > .30	1	1%				
D-Scores			FC:CF+C Ratio						
			FC > (CF+C) + 2	53	27%				
D Score > 0	47	24%	FC > (CF+C) + 1	89	45%				
D Score = 0	138	69%	(CF+C) > FC+1	9	5%				
D Score < 0	14	7%	(CF+C) > FC+2	4	2%				
D Score < -1	6	3%							
Adj D Score > 0	82	41%							
Adj D Score = 0	108	54%							
Adj D Score < 0	9	5%							
Adj D Score < -1	2	1%							
Zd > +3.0 (Overincorp)	33	17%	S-Constellation Positive	0	0%				
Zd < -3.0 (Underincorp)	22	11%	HVI Positive	6	3%				
			OBS Positive	5	3%				
PTI = 5	0	0%	DEPI = 7	0	0%	CDI = 5	0	0%	
PTI = 4	0	0%	DEPI = 6	1	1%	CDI = 4	1	1%	
PTI = 3	1	1%	DEPI = 5	9	5%				
Miscellaneous Variables									
R < 17	18	9%	(2AB +Art + Ay) > 5	2	1%				
R > 27	25	13%	Populars < 4	3	2%				
DQv > 2	40	20%	Populars > 7	58	29%				
S > 2	28	14%	COP = 0	29	15%				
Sum T = 0	35	18%	COP > 2	97	49%				
Sum T > 1	18	9%	AG = 0	67	34%				
3r+(2)/R < .33	20	10%	AG > 2	25	13%				
3r+(2)/R > .44	52	26%	MOR > 2	13	7%				
Fr + rF > 0	14	7%	Level 2 Sp.Sc. > 0	16	8%				
PureC > 0	3	2%	GHR > PHR	187	94%				
PureC > 1	0	0%	Pure H < 2	3	2%				
Afr < .40	9	5%	Pure H = 0	0	0%				
Afr < .50	25	13%	p > a+1	3	2%				
(FM+m) < Sum Shading	17	9%	Mp > Ma	16	8%				

Table 12.7 Descriptive Statistics for Adult Extratensives (N = 227).

Variable	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
AGE	31.25	11.06	19.00	67.00	227	29.00	22.00	1.38	1.53
Years Educ	13.41	1.61	9.00	19.00	227	13.00	12.00	0.40	0.22
R	22.43	3.09	15.00	32.00	227	22.00	21.00	0.06	0.61
W	8.68	2.11	5.00	24.00	227	9.00	9.00	2.80	15.52
D	12.92	3.26	1.00	23.00	227	13.00	13.00	-0.59	1.50
Dd	0.82	[0.84]	0.00	3.00	130	1.00	0.00	0.65	-0.50
S	1.45	[0.87]	0.00	4.00	205	1.00	1.00	0.62	0.45
DQ+	7.11	1.91	3.00	17.00	227	7.00	6.00	1.21	3.33
DQo	14.00	2.44	7.00	22.00	227	14.00	15.00	-0.19	0.87
DQv	0.87	[1.00]	0.00	5.00	123	1.00	0.00	1.17	1.36
DQv/+	0.44	[0.61]	0.00	2.00	86	0.00	0.00	1.05	0.09
FQx+	0.86	[0.83]	0.00	4.00	138	1.00	0.00	0.65	-0.04
FQxo	16.70	2.74	10.00	23.00	227	17.00	17.00	-0.08	-0.15
FQxu	3.22	1.73	0.00	9.00	216	3.00	3.00	0.48	0.25
FQx-	1.49	1.09	0.00	7.00	198	1.00	1.00	1.49	4.28
FQxNone	0.17	[0.42]	0.00	3.00	35	0.00	0.00	2.85	10.50
MQ+	0.57	[0.67]	0.00	3.00	107	0.00	0.00	0.85	-0.02
MQo	2.36	1.02	0.00	5.00	226	2.00	3.00	0.18	-0.69
MQu	0.04	0.21	0.00	1.00	10	0.00	0.00	4.47	18.17
MQ-	0.02	[0.13]	0.00	1.00	4	0.00	0.00	7.38	52.95
MQNone	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
S	-0.19	[0.45]	0.00	3.00	40	0.00	0.00	2.56	8.09
M	2.99	0.92	1.00	6.00	227	3.00	3.00	0.12	0.52
FM	3.94	1.17	0.00	8.00	226	4.00	4.00	-0.08	0.52
m	1.13	0.96	0.00	6.00	172	1.00	1.00	1.27	3.31
FM+m	5.07	1.59	1.00	9.00	227	5.00	5.00	0.19	-0.15
FC	4.65	1.80	0.00	9.00	224	5.00	5.00	0.04	-0.11
CF	3.45	1.07	0.00	7.00	226	3.00	3.00	0.18	0.59
C	0.19	[0.47]	0.00	3.00	37	0.00	0.00	3.03	11.39
Cn	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sum Color	8.28	1.65	3.00	12.00	227	8.00	8.00	-0.14	0.03
WSumC	6.05	1.09	4.00	9.50	227	6.00	6.00	0.26	0.09
Sum C'	1.47	[1.04]	0.00	5.00	194	1.00	1.00	0.83	0.93
Sum T	1.04	[0.59]	0.00	4.00	201	1.00	1.00	1.27	4.75
Sum V	0.23	[0.61]	0.00	5.00	38	0.00	0.00	3.59	18.47
Sum Y	0.71	[0.77]	0.00	3.00	124	1.00	0.00	0.96	0.58
Sum Shading	3.46	1.61	0.00	10.00	225	3.00	3.00	1.03	1.56
Fr+rF	0.08	[0.37]	0.00	3.00	12	0.00	0.00	5.25	29.80
FD	1.18	[0.79]	0.00	5.00	191	1.00	1.00	0.92	2.44
F	7.66	1.87	3.00	12.00	227	8.00	8.00	-0.10	-0.35
(2)	8.46	1.67	5.00	12.00	227	8.00	8.00	0.20	-0.65
3r+(2)/R	0.39	0.07	0.27	0.61	227	0.38	0.33	0.90	0.55
Lambda	0.54	0.17	0.19	0.91	227	0.53	0.53	0.10	-0.51
EA	9.04	1.82	5.50	15.50	227	9.00	8.50	0.26	0.49
es	8.53	2.48	4.00	18.00	227	8.00	7.00	0.59	0.83
D Score	0.07	0.69	-3.00	2.00	227	0.00	0.00	-0.08	3.88
AdjD	0.15	0.68	-2.00	3.00	227	0.00	0.00	0.59	3.48
a (active)	5.73	1.81	0.00	11.00	226	6.00	5.00	0.21	-0.20
p (passive)	2.37	1.31	0.00	8.00	221	2.00	2.00	1.31	2.99
Ma	1.95	0.99	0.00	6.00	214	2.00	2.00	0.29	0.47
Mp	1.07	0.78	0.00	4.00	179	1.00	1.00	0.65	0.70
Intellect	1.96	1.44	0.00	7.00	201	2.00	1.00	1.12	1.42
Zf	11.83	2.31	8.00	27.00	227	11.00	11.00	1.92	9.10
Zd	1.57	2.74	-3.50	9.50	210	1.00	2.00	0.73	0.49
Blends	5.86	1.75	0.00	12.00	226	6.00	6.00	-0.02	0.87
Blends/R	0.26	0.08	0.00	0.57	226	0.26	0.26	0.01	2.22
Col-Shd Blends	0.70	[0.83]	0.00	5.00	116	1.00	0.00	1.33	2.75
Afr	0.71	0.16	0.27	1.09	227	0.71	0.91	0.18	-0.15
Populars	6.77	1.36	4.00	9.00	227	7.00	8.00	-0.36	-0.63

(continued)

Table 12.7 Continued.

Variable	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
XA%	0.93	0.05	0.72	1.00	227	0.94	0.96	-1.01	1.99
WDA%	0.93	0.05	0.72	1.00	227	0.95	0.96	-1.00	2.12
X+%	0.78	0.09	0.38	1.00	227	0.79	0.86	-0.74	2.16
X-%	0.07	0.05	0.00	0.24	198	0.05	0.04	0.88	1.32
Xu%	0.14	0.07	0.00	0.35	216	0.14	0.14	0.22	0.18
Isolate/R	0.21	0.09	0.05	0.45	227	0.19	0.16	0.57	-0.37
H	2.41	0.90	1.00	6.00	227	2.00	2.00	0.47	0.75
(H)	1.18	0.90	0.00	6.00	170	1.00	1.00	0.69	2.50
Hd	0.93	[0.84]	0.00	4.00	153	1.00	1.00	0.81	0.78
(Hd)	0.24	[0.49]	0.00	3.00	49	0.00	0.00	2.42	7.80
Hx	0.01	[0.13]	0.00	2.00	1	0.00	0.00	15.06	227.00
All H Cont	4.76	1.43	2.00	12.00	227	5.00	4.00	0.95	2.79
A	8.14	2.08	4.00	14.00	227	8.00	7.00	0.75	-0.17
(A)	0.21	[0.49]	0.00	3.00	42	0.00	0.00	2.75	9.48
Ad	2.21	[0.98]	0.00	5.00	219	2.00	2.00	0.02	-0.19
(Ad)	0.12	[0.40]	0.00	2.00	21	0.00	0.00	3.53	12.22
An	0.44	[0.67]	0.00	4.00	82	0.00	0.00	1.96	5.93
Art	1.15	0.87	0.00	5.00	176	1.00	1.00	0.76	1.69
Ay	0.34	[0.51]	0.00	2.00	72	0.00	0.00	1.10	0.08
Bl	0.35	[0.58]	0.00	3.00	68	0.00	0.00	1.58	2.22
Bt	2.97	1.30	0.00	6.00	220	3.00	3.00	0.09	-0.15
Cg	1.17	0.86	0.00	5.00	181	1.00	1.00	0.86	1.87
Cl	0.11	[0.32]	0.00	2.00	23	0.00	0.00	2.97	8.33
Ex	0.10	[0.30]	0.00	1.00	23	0.00	0.00	2.66	5.12
Fi	0.75	[0.88]	0.00	4.00	110	0.00	0.00	0.74	-0.51
Food	0.36	[0.58]	0.00	3.00	71	0.00	0.00	1.51	1.98
Ge	0.08	[0.28]	0.00	2.00	16	0.00	0.00	3.84	15.22
Hh	0.88	0.75	0.00	3.00	157	1.00	1.00	0.76	0.70
Ls	0.76	0.72	0.00	3.00	138	1.00	1.00	0.68	0.19
Na	0.37	[0.56]	0.00	2.00	74	0.00	0.00	1.23	0.56
Sc	1.12	[1.07]	0.00	6.00	150	1.00	0.00	1.08	2.29
Sx	0.05	[0.24]	0.00	2.00	11	0.00	0.00	4.91	26.09
Xy	0.04	[0.21]	0.00	1.00	10	0.00	0.00	4.47	18.17
Idio	1.53	[1.28]	0.00	5.00	170	1.00	1.00	0.59	-0.30
DV	0.53	[0.65]	0.00	3.00	102	0.00	0.00	0.93	0.20
INCOM	0.61	[0.76]	0.00	4.00	112	0.00	0.00	1.58	3.63
DR	0.37	[0.73]	0.00	4.00	60	0.00	0.00	2.29	6.03
FABCOM	0.23	[0.47]	0.00	2.00	47	0.00	0.00	1.91	2.93
DV2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
INC2	0.00	[0.07]	0.00	1.00	1	0.00	0.00	15.06	227.00
DR2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
FAB2	0.02	[0.15]	0.00	1.00	5	0.00	0.00	6.55	41.35
ALOG	0.05	[0.22]	0.00	1.00	11	0.00	0.00	4.23	16.06
CONTAM	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	1.82	1.46	0.00	7.00	190	2.00	1.00	1.09	1.34
Lvl 2 Sp Sc	0.03	[0.16]	0.00	1.00	6	0.00	0.00	5.94	33.62
WSum6	4.21	4.23	0.00	22.00	190	3.00	2.00	1.80	4.08
AB	0.23	[0.47]	0.00	2.00	48	0.00	0.00	1.88	2.76
AG	1.15	1.19	0.00	5.00	145	1.00	0.00	1.00	0.46
COP	1.83	1.23	0.00	4.00	189	2.00	2.00	0.14	-0.91
CP	0.02	[0.15]	0.00	1.00	5	0.00	0.00	6.55	41.35
GOODHR	4.32	1.33	1.00	8.00	227	4.00	4.00	0.27	0.50
POORHR	1.51	1.33	0.00	8.00	168	1.00	1.00	1.02	1.89
MOR	0.71	[0.78]	0.00	4.00	121	1.00	0.00	1.01	0.97
PER	0.99	[0.94]	0.00	5.00	158	1.00	1.00	1.57	4.24
PSV	0.07	[0.27]	0.00	2.00	15	0.00	0.00	4.01	16.78

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

Table 12.8. Frequencies for 36 Variables for Adult Extratensives (N = 227).

Demography Variables									
Marital Status			Age			Race			
Single	73	32%	18-25	82	36%	White	176	78%	
Lives w/S.O.	14	6%	26-35	90	40%	Black	27	12%	
Married	99	44%	36-45	26	11%	Hispanic	19	8%	
Separated	13	6%	46-55	18	8%	Asian	5	2%	
Divorced	24	11%	56-65	7	3%				
Widowed	4	2%	OVER 65	4	2%				
Sex			Education						
Male	118	52%				Under 12	13	6%	
Female	109	48%				12 Years	65	29%	
						13-15 Yrs	115	51%	
						16+ Yrs	34	15%	
Ratios, Percentages, and Special Indices									
Styles			Form Quality Deviations						
Introversive	0	0%				XA% > .89	168	74%	
Pervasive	0	0%				XA% < .70	0	0%	
Ambitent	0	0%				WDA% < .85	7	3%	
Extratensive	227	100%				WDA% < .75	1	0%	
Pervasive	59	26%				X+% < .55	2	1%	
Avoidant	0	0%				Xu% > .20	41	18%	
						X-% > .20	3	1%	
						X-% > .30	0	0%	
D-Scores			FC:CF+C RATIO						
D Score > 0	36	16%				FC > (CF+C) + 2	67	30%	
D Score = 0	168	74%				FC > (CF+C) + 1	102	45%	
D Score < 0	23	10%				(CF+C) > FC+1	36	16%	
D Score < -1	6	3%				(CF+C) > FC+2	11	5%	
Adj D Score > 0	44	19%							
Adj D Score = 0	166	73%							
Adj D Score < 0	17	7%							
Adj D Score < -1	4	2%							
Zd > +3.0 (Overincorp)	45	20%				S-Constellation Positive	0	0%	
Zd < -3.0 (Underincorp)	3	1%				HVI Positive	3	1%	
PTI = 5	0	0%	DEPI = 7	1	0%	OBS Positive	1	0%	
PTI = 4	0	0%	DEPI = 6	0	0%	CDI = 5	0	0%	
PTI = 3	0	0%	DEPI = 5	7	3%	CDI = 4	6	3%	
Miscellaneous Variables									
R < 17	14	6%				(2AB + Art + Ay) > 5	8	4%	
R > 27	17	7%				Populars < 4	0	0%	
DQv > 2	13	6%				Populars > 7	81	36%	
S > 2	25	11%				COP = 0	38	17%	
Sum T = 0	26	11%				COP > 2	68	30%	
Sum T > 1	28	12%				AG = 0	82	36%	
3r+(2)/R < .33	36	16%				AG > 2	36	16%	
3r+(2)/R > .44	39	17%				MOR > 2	5	2%	
Fr + rF > 0	12	5%				Level 2 Sp.Sc. > 0	6	3%	
PureC > 0	37	16%				GHR > PHR	195	86%	
PureC > 1	4	2%				Pure H < 2	34	15%	
Afr < .40	2	1%				Pure H = 0	0	0%	
Afr < .50	14	6%				p > a+1	7	3%	
(FM+m) < Sum Shading	30	13%				Mp > Ma	47	21%	

Table 12.9 Descriptive Statistics for Adult Ambitents (N = 116).

Variable	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
AGE	31.13	9.36	19.00	62.00	116	30.00	30.00	1.30	2.14
Years Educ	13.09	1.54	9.00	18.00	116	13.00	12.00	0.33	0.76
R	20.84	4.99	14.00	38.00	116	20.00	20.00	1.21	1.96
W	7.86	2.17	3.00	18.00	116	8.00	7.00	0.95	3.74
D	11.53	3.82	0.00	20.00	115	12.00	14.00	-0.37	0.15
Dd	1.45	[2.49]	0.00	15.00	70	1.00	0.00	3.75	16.62
S	1.90	[1.65]	0.00	9.00	98	2.00	2.00	1.89	5.21
DQ+	6.73	1.87	2.00	13.00	116	7.00	8.00	-0.15	0.56
DQo	12.82	4.58	5.00	34.00	116	12.00	14.00	2.18	7.93
DQv	0.88	[1.25]	0.00	5.00	50	0.00	0.00	1.50	1.85
DQv/+	0.41	[0.70]	0.00	2.00	33	0.00	0.00	1.44	0.60
FQx+	0.57	[0.83]	0.00	4.00	47	0.00	0.00	1.70	3.61
FQxo	15.27	3.54	7.00	29.00	116	15.00	13.00	0.55	0.95
FQxu	3.16	2.10	0.00	13.00	110	3.00	2.00	1.93	6.78
FQx-	1.68	1.26	0.00	6.00	101	1.00	1.00	1.07	1.16
FQxNone	0.16	[0.47]	0.00	3.00	14	0.00	0.00	3.60	14.91
MQ+	0.26	[0.59]	0.00	3.00	23	0.00	0.00	2.68	7.87
MQo	3.28	1.44	0.00	8.00	114	3.00	3.00	0.54	0.86
MQu	0.25	0.51	0.00	2.00	25	0.00	0.00	1.94	3.01
MQ-	0.15	[0.36]	0.00	1.00	17	0.00	0.00	2.02	2.14
MQNone	0.01	[0.09]	0.00	1.00	1	0.00	0.00	10.77	116.00
S-	0.41	[0.82]	0.00	3.00	29	0.00	0.00	2.03	3.21
M	3.95	1.36	1.00	10.00	116	4.00	3.00	1.08	2.65
FM	3.85	1.33	1.00	9.00	116	4.00	4.00	0.43	1.22
m	1.48	1.08	0.00	4.00	90	2.00	2.00	0.31	-0.29
FM+m	5.34	1.69	2.00	10.00	116	5.00	5.00	0.19	0.18
FC	3.12	1.77	0.00	8.00	111	3.00	2.00	0.53	0.05
CF	1.91	1.13	0.00	5.00	105	2.00	1.00	0.20	-0.54
C	0.15	[0.40]	0.00	2.00	15	0.00	0.00	2.80	7.72
Cn	0.02	[0.13]	0.00	1.00	2	0.00	0.00	7.51	55.43
Sum Color	5.20	2.02	1.00	9.00	116	5.00	4.00	0.11	-0.59
WSumC	3.69	1.40	0.50	8.00	116	3.50	3.50	0.02	0.01
Sum C'	1.97	[1.38]	0.00	10.00	107	2.00	1.00	1.97	8.83
Sum T	0.94	[0.64]	0.00	4.00	92	1.00	1.00	0.87	3.85
Sum V	0.38	[0.77]	0.00	3.00	28	0.00	0.00	2.07	3.55
Sum Y	0.80	[1.42]	0.00	10.00	55	0.00	0.00	3.92	20.18
Sum Shading	4.09	2.95	1.00	23.00	116	3.00	3.00	3.16	15.33
Fr+rF	0.10	[0.35]	0.00	2.00	9	0.00	0.00	3.96	16.24
FD	1.29	[1.17]	0.00	5.00	84	1.00	1.00	1.08	1.39
F	6.96	2.56	2.00	17.00	116	7.00	7.00	0.91	2.36
(2)	7.89	2.76	1.00	13.00	116	8.00	7.00	-0.07	0.22
3r+(2)/R	0.40	0.11	0.03	0.63	116	0.40	0.50	-0.91	2.43
Lambda	0.52	0.19	0.13	0.92	116	0.50	0.50	0.11	-0.25
EA	7.64	2.53	2.00	18.00	116	7.50	7.50	0.51	1.52
es	9.42	3.65	4.00	31.00	116	9.00	9.00	2.60	11.17
D Score	-0.53	1.51	-10.00	2.00	116	0.00	0.00	-3.24	15.20
AdjD	-0.25	1.05	-5.00	2.00	116	0.00	0.00	-1.75	5.49
a (active)	6.37	1.87	2.00	12.00	116	6.00	6.00	0.55	0.58
p (passive)	2.93	1.48	0.00	6.00	109	3.00	2.00	0.28	-0.12
Ma	2.60	1.08	1.00	7.00	116	2.00	2.00	1.29	2.78
Mp	1.37	0.87	0.00	3.00	98	1.00	1.00	0.16	-0.61
Intellect	1.27	1.37	0.00	6.00	72	1.00	0.00	1.04	0.47
Zf	11.29	2.66	5.00	24.00	116	11.00	10.00	0.78	3.71
Zd	0.64	2.69	-6.50	8.00	108	0.50	1.00	0.38	0.16
Blends	5.34	2.01	1.00	10.00	116	5.00	5.00	-0.03	-0.55
Blends/R	0.26	0.11	0.05	0.67	116	0.26	0.26	0.69	1.14
Col-Shd Blends	0.33	[0.54]	0.00	2.00	34	0.00	0.00	1.40	1.05
Afr	0.63	0.16	0.27	1.29	116	0.60	0.60	0.54	1.83
Populars	6.43	1.53	3.00	10.00	116	6.00	8.00	-0.02	-0.37

Table 12.9 Continued.

Variable	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
XA%	0.91	0.07	0.57	1.00	116	0.93	0.95	-1.53	4.07
WDA%	0.92	0.07	0.54	1.00	116	0.94	1.00	-1.81	7.49
X+%	0.76	0.09	0.50	1.00	116	0.78	0.75	-0.46	1.02
X-%	0.08	0.07	0.00	0.43	101	0.06	0.04	1.76	5.67
Xu%	0.15	0.08	0.00	0.39	110	0.15	0.16	0.50	0.75
Isolate/R	0.18	0.09	0.00	0.47	111	0.17	0.13	0.25	0.07
H	2.55	1.23	0.00	7.00	113	3.00	3.00	0.85	2.25
(H)	1.32	0.99	0.00	4.00	87	1.00	2.00	0.29	-0.24
Hd	0.97	[1.19]	0.00	7.00	71	1.00	1.00	2.61	10.41
(Hd)	0.26	[0.63]	0.00	4.00	22	0.00	0.00	3.26	13.10
Hx	0.02	[0.13]	0.00	1.00	2	0.00	0.00	7.51	55.43
All H Cont	5.09	1.75	1.00	10.00	116	5.00	5.00	0.60	0.91
A	7.65	2.31	3.00	14.00	116	7.00	6.00	0.24	-0.51
(A)	0.27	[0.53]	0.00	3.00	27	0.00	0.00	2.24	6.11
Ad	2.10	[1.55]	0.00	9.00	107	2.00	2.00	1.83	5.45
(Ad)	0.11	[0.34]	0.00	2.00	12	0.00	0.00	3.12	9.84
An	0.57	[0.87]	0.00	4.00	45	0.00	0.00	1.69	2.68
Art	0.76	0.98	0.00	5.00	55	0.00	0.00	1.39	2.17
Ay	0.30	[0.48]	0.00	2.00	34	0.00	0.00	1.11	-0.16
Bl	0.18	[0.43]	0.00	2.00	19	0.00	0.00	2.32	4.91
Bt	1.94	1.14	0.00	4.00	100	2.00	2.00	-0.12	-0.72
Cg	1.43	0.93	0.00	4.00	98	1.00	1.00	0.33	-0.19
Cl	0.20	[0.42]	0.00	2.00	22	0.00	0.00	1.88	2.53
Ex	0.23	[0.44]	0.00	2.00	26	0.00	0.00	1.58	1.31
Fi	0.48	[0.70]	0.00	3.00	43	0.00	0.00	1.28	0.83
Food	0.16	[0.44]	0.00	2.00	16	0.00	0.00	2.74	7.17
Ge	0.03	[0.18]	0.00	1.00	4	0.00	0.00	5.17	25.16
Hb	0.76	0.87	0.00	3.00	61	1.00	0.00	0.97	0.19
Ls	0.72	0.79	0.00	3.00	65	1.00	0.00	1.07	1.04
Na	0.29	[0.56]	0.00	2.00	28	0.00	0.00	1.78	2.25
Sc	1.05	[1.28]	0.00	5.00	63	1.00	0.00	1.37	1.70
Sx	0.17	[0.58]	0.00	3.00	12	0.00	0.00	3.80	14.65
Xy	0.11	[0.37]	0.00	2.00	11	0.00	0.00	3.49	12.48
Idio	1.09	[1.19]	0.00	5.00	67	1.00	0.00	0.96	0.50
DV	0.61	[0.88]	0.00	4.00	49	0.00	0.00	1.62	2.41
INCOM	0.51	[0.75]	0.00	4.00	46	0.00	0.00	1.84	4.44
DR	0.46	[0.75]	0.00	3.00	39	0.00	0.00	1.78	2.90
FABCOM	0.37	[0.65]	0.00	2.00	32	0.00	0.00	1.54	1.07
DV2	0.01	[0.09]	0.00	1.00	1	0.00	0.00	10.77	116.00
INC2	0.03	[0.18]	0.00	1.00	4	0.00	0.00	5.17	25.16
DR2	0.02	[0.13]	0.00	1.00	2	0.00	0.00	7.51	55.43
FAB2	0.01	[0.09]	0.00	1.00	1	0.00	0.00	10.77	116.00
ALOG	0.03	[0.18]	0.00	1.00	4	0.00	0.00	5.17	25.16
CONTAM	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	2.05	1.48	0.00	6.00	96	2.00	2.00	0.45	-0.31
Lvl 2 Sp Sc	0.07	[0.25]	0.00	1.00	8	0.00	0.00	3.44	10.05
WSum6	4.97	4.06	0.00	17.00	96	4.00	0.00	0.83	0.33
AB	0.10	[0.31]	0.00	1.00	12	0.00	0.00	2.63	5.05
AG	1.15	1.05	0.00	4.00	79	1.00	1.00	0.77	0.34
COP	1.82	1.25	0.00	4.00	94	2.00	2.00	0.08	-0.98
CP	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
GOODHR	4.37	1.65	0.00	10.00	115	4.00	4.00	0.32	0.92
POORHR	1.69	1.53	0.00	7.00	90	1.00	1.00	1.37	2.54
MOR	0.78	[0.99]	0.00	4.00	55	0.00	0.00	1.18	0.80
PER	0.94	[0.88]	0.00	5.00	77	1.00	1.00	1.14	2.85
PSV	0.04	[0.20]	0.00	1.00	5	0.00	0.00	4.55	19.11

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

Table 12.10. Frequencies for 36 Variables for Adult Ambitents (N = 116).

Demography Variables									
Marital Status			Age			Race			
			18-25	26-35	36-45	White	Black	Hispanic	
Single	30	26%	18-25	35	30%	White	98	84%	
Lives w/S.O.	12	10%	26-35	53	46%	Black	7	6%	
Married	45	39%	36-45	21	18%	Hispanic	11	9%	
Separated	4	3%	46-55	2	2%	Asian	0	0%	
Divorced	22	19%	56-65	5	4%				
Widowed	3	3%	OVER 65	0	0%				
Sex						Education			
						Under 12	12 Years	13-15 Yrs	
Male	52	45%				Under 12	10	9%	
Female	64	55%				12 Years	36	31%	
						13-15 Yrs	61	53%	
						16+ Yrs	9	8%	
Ratios, Percentages, and Special Indices									
Styles						Form Quality Deviations			
						XA% > .89	XA% < .70	WDA% < .85	
Introversive	0	0%				XA% > .89	76	66%	
Pervasive	0	0%				XA% < .70	1	1%	
Ambitient	116	100%				WDA% < .85	10	9%	
Extratensive	0	0%				WDA% < .75	1	1%	
Pervasive	0	0%				X+% < .55	2	2%	
Avoidant	0	0%				Xu% > .20	21	18%	
						X-% > .20	8	7%	
						X-% > .30	1	1%	
D-Scores						FC:CF+C Ratio			
						FC > (CF+C) + 2	FC > (CF+C) + 1	(CF+C) > FC+1	
D Score > 0	10	9%				FC > (CF+C) + 2	23	20%	
D Score = 0	69	59%				FC > (CF+C) + 1	42	36%	
D Score < 0	37	32%				(CF+C) > FC+1	13	11%	
D Score < -1	12	10%				(CF+C) > FC+2	4	3%	
Adj D Score > 0	16	14%							
Adj D Score = 0	72	62%							
Adj D Score < 0	28	24%							
Adj D Score < -1	11	9%							
Zd > +3.0 (Overincorp)	20	17%				S-Constellation Positive	0	0%	
Zd < -3.0 (Underincorp)	6	5%				HVI Positive	8	7%	
PTI = 5	0	0%	DEPI = 7	1	1%	OBS Positive	2	2%	
PTI = 4	0	0%	DEPI = 6	2	2%	CDI = 5	2	2%	
PTI = 3	0	0%	DEPI = 5	6	5%	CDI = 4	8	7%	
Miscellaneous Variables									
R < 17	23	20%				(2AB + Art + Ay) > 5	1	1%	
R > 27	8	7%				Populars < 4	4	3%	
DQv > 2	11	9%				Populars > 7	35	30%	
S > 2	24	21%				COP = 0	22	19%	
Sum T = 0	24	21%				COP > 2	36	31%	
Sum T > 1	15	13%				AG = 0	37	32%	
3r+(2)/R < .33	17	15%				AG > 2	9	8%	
3r+(2)/R > .44	35	30%				MOR > 2	7	6%	
Fr + rF > 0	9	8%				Level 2 Sp.Sc. > 0	8	7%	
PureC > 0	15	13%				GHR > PHR	95	82%	
PureC > 1	2	2%				Pure H < 2	20	17%	
Afr < .40	5	4%				Pure H = 0	3	3%	
Afr < .50	18	16%				p > a+1	1	1%	
(FM+m) < Sum Shading	24	21%				Mp > Ma	14	12%	

Table 12.11 Descriptive Statistics for Adults High Lambda ($N = 58$).

Variable	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
AGE	29.64	8.66	19.00	61.00	58	28.50	24.00	1.21	1.90
Years Educ	13.28	1.66	10.00	18.00	58	13.00	13.00	0.91	0.94
R	22.83	5.34	14.00	43.00	58	21.50	23.00	1.68	3.83
W	6.36	1.72	4.00	12.00	58	6.00	5.00	0.85	0.61
D	14.91	4.19	2.00	32.00	58	15.00	16.00	0.47	5.28
Dd	1.55	[2.65]	0.00	11.00	33	1.00	0.00	2.54	6.11
S	1.65	[1.72]	0.00	10.00	46	1.00	1.00	2.45	8.98
DQ+	5.55	1.72	1.00	10.00	58	6.00	6.00	0.07	0.53
DQo	16.21	4.34	6.00	36.00	58	16.00	16.00	1.90	7.78
DQv	0.91	[1.57]	0.00	6.00	22	0.00	0.00	1.89	2.79
DQv/+	0.16	[0.37]	0.00	1.00	9	0.00	0.00	1.95	1.89
FQx+	0.12	[0.38]	0.00	2.00	6	0.00	0.00	3.33	11.57
FQxo	15.88	3.24	8.00	24.00	58	16.00	16.00	0.13	0.71
FQxu	4.72	2.67	1.00	16.00	58	4.00	3.00	1.78	4.95
FQx-	1.95	1.47	0.00	8.00	51	2.00	1.00	1.29	3.53
FQxNone	0.16	[0.45]	0.00	2.00	7	0.00	0.00	3.04	8.94
MQ+	0.05	[0.29]	0.00	2.00	2	0.00	0.00	6.04	37.89
MQo	2.59	1.44	0.00	7.00	56	2.00	2.00	0.80	0.74
MQu	0.16	0.45	0.00	2.00	7	0.00	0.00	3.04	8.94
MQ-	0.02	[0.13]	0.00	1.00	1	0.00	0.00	7.61	58.00
MQNone	0.02	[0.13]	0.00	1.00	1	0.00	0.00	7.61	58.00
S-	0.28	[0.52]	0.00	2.00	14	0.00	0.00	1.76	2.37
M	2.83	1.49	1.00	7.00	58	3.00	2.00	0.80	0.18
FM	2.78	1.64	0.00	9.00	57	3.00	3.00	1.37	3.22
m	0.76	0.82	0.00	3.00	32	1.00	0.00	0.87	0.15
FM+m	3.53	2.06	0.00	12.00	57	3.00	3.00	1.67	4.75
FC	1.95	1.22	0.00	5.00	52	2.00	2.00	0.70	0.87
CF	1.95	1.29	0.00	4.00	48	2.00	3.00	-0.05	-1.08
C	0.12	[0.38]	0.00	2.00	6	0.00	0.00	3.33	11.57
Cn	0.03	[0.18]	0.00	1.00	2	0.00	0.00	5.23	26.35
Sum Color	4.05	1.63	1.00	7.00	58	4.00	3.00	0.16	-0.64
WSumC	3.10	1.36	0.50	5.50	58	2.75	4.00	0.06	-0.94
Sum C'	1.12	[0.94]	0.00	3.00	43	1.00	1.00	0.67	-0.25
Sum T	0.67	[0.71]	0.00	3.00	33	1.00	1.00	1.18	2.22
Sum V	0.12	[0.50]	0.00	3.00	4	0.00	0.00	4.66	22.88
Sum Y	0.41	[0.73]	0.00	3.00	18	0.00	0.00	2.01	4.19
Sum Shading	2.33	1.78	0.00	9.00	53	2.00	2.00	1.43	2.70
Fr+rF	0.28	[0.56]	0.00	2.00	13	0.00	0.00	1.93	2.88
FD	0.57	[0.68]	0.00	2.00	27	0.00	0.00	0.78	-0.48
F	12.72	2.80	7.00	23.00	58	12.00	11.00	1.24	3.08
(2)	8.38	2.71	3.00	21.00	58	8.00	8.00	1.74	7.27
3r+(2)/R	0.40	0.08	0.21	0.61	58	0.40	0.35	0.27	0.16
Lambda	1.33	0.38	1.00	2.33	58	1.16	1.00	1.53	1.29
EA	5.93	1.92	2.00	11.00	58	6.00	6.00	0.12	0.11
es	5.86	2.87	3.00	14.00	58	5.00	3.00	1.40	1.62
D Score	-0.07	0.90	-3.00	3.00	58	0.00	0.00	-0.92	5.52
AdjD	0.02	0.78	-2.00	3.00	58	0.00	0.00	-0.03	4.86
a (active)	4.57	2.15	1.00	10.00	58	4.50	5.00	0.72	0.63
p (passive)	1.79	1.32	0.00	7.00	50	2.00	1.00	1.10	2.75
Ma	2.02	1.28	0.00	6.00	54	2.00	2.00	1.11	2.02
Mp	0.81	0.81	0.00	3.00	35	1.00	1.00	0.78	0.18
Intellect	1.45	1.53	0.00	8.00	40	1.00	1.00	1.66	4.53
Zf	9.62	2.42	5.00	19.00	58	9.00	9.00	1.14	2.75
Zd	-1.12	2.66	-11.50	4.50	52	-1.25	-3.00	-0.78	2.95
Blends	3.07	1.68	1.00	7.00	58	3.00	2.00	0.48	-0.66
Blends/R	0.14	0.07	0.04	0.36	58	0.13	0.05	0.74	0.26
Col-Shd Blends	0.24	[0.47]	0.00	2.00	13	0.00	0.00	1.75	2.28
Afr	0.56	0.18	0.27	1.26	58	0.54	0.67	0.80	1.61
Populars	6.31	1.22	4.00	9.00	58	6.00	5.00	0.27	-0.87

(continued)

Table 12.11 Continued.

Variable	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
XA%	0.91	0.06	0.76	1.00	58	0.90	0.96	-0.39	-0.55
WDA%	0.92	0.06	0.78	1.00	58	0.94	0.96	-0.62	-0.36
X+%	0.71	0.09	0.40	0.85	58	0.71	0.65	-0.99	2.41
X-%	0.09	0.06	0.00	0.19	51	0.07	0.04	0.23	-1.03
Xu%	0.20	0.08	0.05	0.40	58	0.19	0.15	0.51	-0.17
Isolate/R	0.15	0.08	0.00	0.35	57	0.16	0.17	0.27	-0.30
H	2.29	1.18	0.00	5.00	56	2.00	2.00	0.58	0.21
(H)	0.98	0.83	0.00	3.00	41	1.00	1.00	0.61	0.01
Hd	1.47	[1.38]	0.00	6.00	47	1.00	1.00	1.59	2.68
(Hd)	0.22	[0.50]	0.00	2.00	11	0.00	0.00	2.20	4.26
Hx	0.16	[0.59]	0.00	4.00	6	0.00	0.00	5.37	33.27
All H Cont	4.97	1.52	2.00	9.00	58	5.00	4.00	0.89	0.94
A	8.07	3.14	3.00	25.00	58	8.00	6.00	2.90	14.31
(A)	0.40	[0.62]	0.00	3.00	20	0.00	0.00	1.78	4.23
Ad	2.95	[1.43]	0.00	7.00	56	3.00	3.00	0.24	0.41
(Ad)	0.09	[0.28]	0.00	1.00	5	0.00	0.00	3.02	7.42
An	0.72	[0.85]	0.00	3.00	30	1.00	0.00	1.09	0.65
Art	0.76	0.96	0.00	3.00	29	0.50	0.00	1.24	0.68
Ay	0.38	[0.62]	0.00	3.00	19	0.00	0.00	1.87	4.59
Bi	0.14	[0.35]	0.00	1.00	8	0.00	0.00	2.15	2.74
Bt	1.97	1.14	0.00	5.00	54	2.00	2.00	0.43	-0.17
Cg	1.24	1.26	0.00	5.00	40	1.00	1.00	1.26	1.46
Cl	0.03	[0.18]	0.00	1.00	2	0.00	0.00	5.23	26.35
Ex	0.16	[0.37]	0.00	1.00	9	0.00	0.00	1.95	1.89
Fi	0.31	[0.57]	0.00	2.00	15	0.00	0.00	1.69	1.98
Food	0.12	[0.42]	0.00	2.00	5	0.00	0.00	3.67	13.26
Ge	0.07	[0.37]	0.00	2.00	2	0.00	0.00	5.23	26.35
Hh	1.00	0.97	0.00	3.00	38	1.00	1.00	0.82	-0.17
Ls	0.57	0.57	0.00	2.00	31	1.00	1.00	0.32	-0.84
Na	0.29	[0.50]	0.00	2.00	16	0.00	0.00	1.37	0.88
Sc	1.38	[1.30]	0.00	5.00	39	1.00	0.00	0.75	0.18
Sx	0.26	[0.74]	0.00	5.00	11	0.00	0.00	4.94	30.09
Xy	0.05	[0.22]	0.00	1.00	3	0.00	0.00	4.15	15.82
Idio	1.05	[1.85]	0.00	7.00	26	0.00	0.00	2.26	4.49
DV	0.38	[0.52]	0.00	2.00	21	0.00	0.00	0.88	-0.42
INCOM	0.67	[0.91]	0.00	4.00	29	0.50	0.00	2.02	5.14
DR	0.64	[0.67]	0.00	2.00	31	1.00	0.00	0.57	-0.66
FABCOM	0.22	[0.42]	0.00	1.00	13	0.00	0.00	1.35	-0.16
DV2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
INC2	0.05	[0.22]	0.00	1.00	3	0.00	0.00	4.15	15.82
DR2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
FAB2	0.02	[0.13]	0.00	1.00	1	0.00	0.00	7.61	58.00
ALOG	0.07	[0.26]	0.00	1.00	4	0.00	0.00	3.49	10.57
CONTAM	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	2.05	1.26	0.00	7.00	55	2.00	1.00	1.20	3.02
Lvl 2 Sp Sc	0.07	[0.26]	0.00	1.00	4	0.00	0.00	3.49	10.57
WSum6	5.21	3.30	0.00	15.00	55	4.50	2.00	0.45	-0.16
AB	0.16	[0.49]	0.00	3.00	7	0.00	0.00	4.12	20.31
AG	0.71	1.01	0.00	4.00	24	0.00	0.00	1.37	1.19
COP	1.47	1.13	0.00	4.00	45	1.00	1.00	0.35	-0.75
CP	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
GOODHR	4.00	1.34	0.00	7.00	57	4.00	3.00	-0.13	0.74
POORHR	1.85	1.72	0.00	8.00	47	1.00	1.00	1.67	3.98
MOR	0.62	[0.67]	0.00	3.00	31	1.00	0.00	0.98	1.40
PER	0.40	[0.82]	0.00	5.00	17	0.00	0.00	3.56	17.37
PSV	0.19	[0.40]	0.00	1.00	11	0.00	0.00	1.62	0.66

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

Table 12.12. Frequencies for 36 Variables for Adults High Lambda ($N = 58$).

Demography Variables									
Marital Status			Age			Race			
Single	15	26%	18-25	22	38%	White	47	81%	
Lives w/S.O.	10	17%	26-35	22	38%	Black	10	17%	
Married	27	47%	36-45	12	21%	Hispanic	1	2%	
Separated	1	2%	46-55	1	2%	Asian	0	0%	
Divorced	5	9%	56-65	1	2%				
Widowed	0	0%	OVER 65	0	0%				
Sex			Education						
Male	26	45%				Under 12	5	9%	
Female	32	55%				12 Years	15	26%	
						13-15 Yrs	30	52%	
						16+ Yrs	8	14%	
Ratios, Percentages, and Special Indices									
Styles			Form Quality Deviations						
Introversive	0	0%				XA% > .89	32	55%	
Pervasive	0	0%				XA% < .70	0	0%	
Ambitient	0	0%				WDA% < .85	6	10%	
Extratensive	0	0%				WDA% < .75	0	0%	
Pervasive	0	0%				X+ % < .55	2	3%	
Avoidant	58	100%				Xu% > .20	27	47%	
						X- % > .20	0	0%	
						X- % > .30	0	0%	
D-Scores			FC:CF+C Ratio						
D Score > 0	7	12%				FC > (CF+C) + 2	8	14%	
D Score = 0	45	78%				FC > (CF+C) + 1	12	21%	
D Score < 0	6	10%				(CF+C) > FC+1	12	21%	
D Score < -1	5	9%				(CF+C) > FC+2	5	9%	
Adj D Score > 0	9	16%							
Adj D Score = 0	43	74%							
Adj D Score < 0	6	10%							
Adj D Score < -1	4	7%							
Zd > +3.0 (Overincorp)	2	3%				S-Constellation Positive	0	0%	
Zd < -3.0 (Underincorp)	8	14%				HVI Positive	1	2%	
PTI = 5	0	0%	DEPI = 7	0	0%	OBS Positive	0	0%	
PTI = 4	0	0%	DEPI = 6	1	2%				
PTI = 3	0	0%	DEPI = 5	2	3%	CDI = 5	0	0%	
						CDI = 4	6	10%	
Miscellaneous Variables									
R < 17	3	5%				(2AB + Art + Ay) > 5	1	2%	
R > 27	5	9%				Populars < 4	0	0%	
DQv > 2	9	16%				Populars > 7	10	17%	
S > 2	9	16%				COP = 0	13	22%	
Sum T = 0	25	43%				COP > 2	12	21%	
Sum T > 1	4	7%				AG = 0	34	59%	
3r+(2)/R < .33	7	12%				AG > 2	4	7%	
3r+(2)/R > .44	14	24%				MOR > 2	1	2%	
Fr + rF > 0	13	22%				Level 2 Sp.Sc. > 0	4	7%	
PureC > 0	6	10%				GHR > PHR	49	84%	
PureC > 1	1	2%				Pure H < 2	14	24%	
Afr < .40	2	3%				Pure H = 0	2	3%	
Afr < .50	9	16%				p > a + 1	0	0%	
(FM+m) < Sum Shading	16	28%				Mp > Ma	5	9%	

the collection of a new nonpatient sample to ascertain the utility of the published sample.

DESIGN USED FOR THE NEW SAMPLE

This project (Exner, 2002) was initiated during the fall of 1999, using essentially the same design as for the original project during the period from 1973 to 1986. There are three differences in the current model. About 75% of the nonpatients tested between 1973 and 1981 were recruited by persons employed primarily to solicit subjects for various investigations. In the current project, examiners recruit their own subjects through businesses and organizations, using essentially the same procedures previously used by recruiters, including a slightly modified version of the solicitation letter. A second difference concerns prescribed medications or illegal drug use. Questions concerning these issues were not asked of persons tested between 1973 and 1986. However, both seem more important at this time. *Anyone* volunteering is tested, but the records of those having a prolonged or significant history involving prescribed psychotropics, or admitting to regular use of illegal drugs, are excluded from the sample. A third difference concerns the financial structure. Persons tested in the original project were not paid. In the current project, volunteers also are not paid but, as a form of enticement, a \$25 donation is paid, in the name of the subject, to any recognized charity that the person selects.

More than 10 years were required to obtain the pool of more than 1,100 records from which to form the stratified sample representing 600 nonpatients. The current project is proceeding at about the same pace. During the first two years since the project was initiated, nearly 200 subjects, from 14 states,² have been tested by 13 experienced examiners. Each examiner codes the records that he or she has collected and the cod-

ing is reviewed for errors in the central office of Rorschach Workshops at the time it is computer entered. In addition, every fourth protocol is re-coded, and percentages of correct agreement are recorded as a tactic to review scoring accuracy, and provide feedback to examiners when relevant. Data for the first 175 persons included in this project are shown in Tables 12.13 and 12.14.

Table 12.15 includes data for 12 variables from the published sample of 600 nonpatients and those for the first 175 records collected in the current project. These are the variables described earlier for which there were noticeably discrepant findings between the Shaffer et al. sample and the sample of 600 subjects.

The data for the two samples are similar for all 12 variables. The mean for the $X+%$ in the new sample is .09 lower, and the mean for the $Xu%$ is .06 higher than in the sample of 600, and the mean Afr is .06 lower for the new group. However, none of these rather modest differences suggest the need for any change in the basic rules of interpretation. In fact, an inspection of the data for all of the variables shown in Tables 12.3 and 12.13, indicate reasonably marked similarities between the two groups.

There are some differences between the two samples worth noting for some of the proportional data shown in Tables 12.3 and 12.14. As will be noted from Table 12.15, only 58 (10%) of those in the sample of 600 have *Lambda* values of 1.0 or greater. The new sample includes 28 (16%) persons who have high *Lambda* values. In addition, the sample of 600 includes 10% who gave Pure *C* responses, as contrasted with 19% of the new sample. Only 5% of the persons in the sample of 600 have positive DEPI values, whereas 17% of those in the new sample have such values. Likewise, 66% of those in the sample of 600 gave at least one more *FC* response than the composite of *CF* + *C*. In the new sample, only 37% did so. Although these differences are interesting, none cause concern about the basic principles of interpretation. Although the new sample does not have the broad geographic distribution represented in the larger

² States represented in the current sample include Alaska, California, Georgia, Iowa, Kentucky, Maryland, New Hampshire, New Jersey, North Carolina, Tennessee, Texas, Virginia, Vermont, and West Virginia.

Table 12.13 Descriptive Statistics for Nonpatient Adults (N = 175).

Variable	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
AGE	35.53	13.23	19.00	86.00	175	32.00	24.00	1.26	1.70
Years Educ	14.15	1.73	10.00	20.00	175	14.00	14.00	0.61	0.35
R	22.98	5.51	14.00	51.00	175	22.00	21.00	1.65	5.14
W	9.20	4.23	3.00	37.00	175	8.00	8.00	2.35	10.59
D	12.45	5.11	0.00	32.00	173	13.00	14.00	0.19	1.31
Dd	1.33	[1.47]	0.00	8.00	116	1.00	0.00	1.74	4.31
S	2.23	[1.96]	0.00	17.00	162	2.00	1.00	3.36	19.57
DQ+	8.33	3.13	1.00	21.00	175	8.00	9.00	0.73	2.05
DQo	13.93	4.59	4.00	36.00	175	14.00	14.00	1.02	3.57
DQv	0.41	[0.70]	0.00	3.00	52	0.00	0.00	1.74	2.47
DQv/+	0.32	[0.70]	0.00	6.00	44	0.00	0.00	4.04	26.03
FQx+	0.47	[0.87]	0.00	5.00	52	0.00	0.00	2.27	5.92
FQxo	14.95	3.39	8.00	29.00	175	15.00	16.00	0.33	1.25
FQxu	5.03	2.77	1.00	17.00	175	5.00	3.00	1.64	4.25
FQx-	2.33	1.73	0.00	12.00	163	2.00	2.00	2.09	7.51
FQxNone	0.20	[0.49]	0.00	3.00	29	0.00	0.00	2.76	8.54
MQ+	0.31	[0.62]	0.00	3.00	42	0.00	0.00	1.94	3.15
MQo	3.86	1.88	1.00	9.00	175	4.00	3.00	0.36	-0.60
MQu	0.41	0.77	0.00	5.00	49	0.00	0.00	2.46	8.00
MQ-	0.17	[0.44]	0.00	2.00	24	0.00	0.00	2.75	7.10
MQNone	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
SQual-	0.53	[0.82]	0.00	4.00	67	0.00	0.00	1.76	3.12
M	4.75	2.19	1.00	11.00	175	5.00	3.00	0.37	-0.11
FM	3.86	1.98	0.00	10.00	169	4.00	4.00	0.42	0.53
m	1.47	1.35	0.00	10.00	138	1.00	1.00	2.08	8.79
FC	2.81	1.79	0.00	8.00	161	2.00	2.00	0.60	0.11
CF	2.93	1.89	0.00	12.00	165	3.00	2.00	1.49	4.92
C	0.23	[0.54]	0.00	3.00	33	0.00	0.00	2.70	8.24
Cn	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sum Color	5.97	2.68	0.00	14.00	174	6.00	5.00	0.54	0.42
WSumC	4.69	2.27	0.00	15.00	174	4.50	4.00	1.09	2.87
Sum C'	1.64	[1.31]	0.00	8.00	146	1.00	1.00	1.26	2.90
Sum T	0.90	[0.64]	0.00	2.00	130	1.00	1.00	0.08	-0.52
Sum V	0.37	[0.82]	0.00	5.00	42	0.00	0.00	3.23	13.06
Sum Y	0.82	[1.06]	0.00	7.00	95	1.00	0.00	2.44	9.60
Sum Shading	3.72	2.27	0.00	14.00	173	3.00	3.00	1.67	4.21
Fr+rF	0.26	[0.81]	0.00	7.00	26	0.00	0.00	4.81	30.77
FD	1.42	[1.13]	0.00	5.00	136	1.00	1.00	0.67	0.12
F	7.97	3.51	1.00	23.00	175	7.00	7.00	0.96	2.28
(2)	8.51	2.69	2.00	21.00	175	8.00	9.00	0.66	2.50
3r+(2)/R	0.41	0.11	0.13	0.87	175	0.39	0.38	0.93	2.84
Lambda	0.61	0.38	0.06	2.33	175	0.50	0.50	1.43	2.65
FM+m	5.33	2.55	0.00	20.00	174	5.00	6.00	1.34	6.30
EA	9.43	3.39	2.00	24.00	175	9.50	8.00	0.82	2.08
es	9.05	3.99	2.00	34.00	175	9.00	8.00	1.98	9.16
D Score	0.03	0.90	-3.00	3.00	60	0.00	0.00	-0.45	3.83
AdjD	0.29	0.89	-3.00	3.00	73	0.00	0.00	-0.05	2.71
a (active)	6.54	2.84	0.00	18.00	174	6.00	6.00	0.44	1.07
p (passive)	3.57	2.09	0.00	13.00	169	3.00	3.00	0.98	2.23
Ma	2.86	1.66	0.00	8.00	164	3.00	3.00	0.50	0.32
Mp	1.90	1.33	0.00	7.00	154	2.00	2.00	0.99	1.84
Intellect	2.26	2.08	0.00	12.00	141	2.00	1.00	1.40	2.83
Zf	13.34	4.55	2.00	41.00	175	12.00	12.00	2.04	8.62
Zd	0.47	3.88	-13.50	12.00	164	0.50	-0.50	-0.16	1.30
Blends	5.55	2.72	0.00	18.00	172	5.00	4.00	0.54	1.58
Blends/R	0.24	0.11	0.00	0.53	172	0.24	0.24	0.00	-0.30
Col-Shd Blends	0.65	[0.91]	0.00	6.00	82	0.00	0.00	2.43	9.42

(continued)

Table 12.13 Continued.

Variable	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
Afr	0.61	0.18	0.21	1.26	175	0.63	0.67	0.19	0.35
Populars	6.30	1.58	1.00	11.00	175	6.00	7.00	-0.32	1.02
XA%	0.89	0.07	0.69	1.00	175	0.90	0.90	-0.75	0.49
WDA%	0.91	0.06	0.69	1.00	175	0.92	0.95	-0.98	1.29
X+%	0.68	0.11	0.35	0.95	175	0.69	0.67	-0.55	0.25
X-%	0.10	0.06	0.00	0.31	163	0.10	0.05	0.77	0.72
Xu%	0.21	0.09	0.05	0.49	175	0.21	0.16	0.50	-0.07
Isolate/R	0.21	0.10	0.00	0.60	171	0.20	0.16	0.56	1.11
H	3.12	1.71	0.00	10.00	172	3.00	3.00	0.82	1.00
(H)	1.39	1.09	0.00	6.00	137	1.00	1.00	0.86	1.33
HD	1.06	[1.03]	0.00	5.00	116	1.00	1.00	1.07	1.46
(Hd)	0.59	[0.87]	0.00	4.00	68	0.00	0.00	1.44	1.52
Hx	0.14	[0.50]	0.00	4.00	18	0.00	0.00	4.75	27.45
All H Cont	6.15	2.53	0.00	18.00	174	6.00	7.00	0.96	3.05
A	8.05	2.65	3.00	25.00	175	8.00	6.00	1.78	8.80
(A)	0.32	[0.58]	0.00	3.00	47	0.00	0.00	1.82	3.20
Ad	2.70	[1.57]	0.00	9.00	169	3.00	2.00	0.79	0.99
(Ad)	0.14	[0.40]	0.00	2.00	22	0.00	0.00	2.85	7.96
An	0.87	[1.12]	0.00	7.00	98	1.00	0.00	2.15	6.67
Art	1.27	1.31	0.00	6.00	112	1.00	0.00	1.09	1.13
Ay	0.59	[0.76]	0.00	4.00	82	0.00	0.00	1.47	2.78
Bl	0.27	[0.55]	0.00	3.00	39	0.00	0.00	2.16	4.79
Bt	2.25	1.54	0.00	6.00	150	2.00	2.00	0.36	-0.48
Cg	1.99	1.56	0.00	8.00	143	2.00	2.00	0.92	1.31
Cl	0.22	[0.49]	0.00	2.00	33	0.00	0.00	2.17	4.00
Ex	0.20	[0.51]	0.00	4.00	29	0.00	0.00	3.59	18.27
Fi	0.75	[0.87]	0.00	4.00	95	1.00	0.00	1.36	2.31
Food	0.30	[0.56]	0.00	3.00	45	0.00	0.00	1.90	3.67
Ge	0.09	[0.33]	0.00	2.00	14	0.00	0.00	3.80	15.15
Hh	1.11	0.97	0.00	5.00	123	1.00	1.00	0.72	0.45
Ls	1.04	1.16	0.00	9.00	112	1.00	1.00	2.51	12.88
Na	0.51	[0.89]	0.00	6.00	62	0.00	0.00	2.70	10.50
Sc	1.55	[1.23]	0.00	6.00	143	1.00	1.00	0.97	1.03
Sx	0.18	[0.49]	0.00	3.00	25	0.00	0.00	3.01	9.74
Xy	0.09	[0.29]	0.00	1.00	16	0.00	0.00	2.86	6.25
Idiographic	0.37	[0.61]	0.00	3.00	53	0.00	0.00	1.60	2.19
DV	0.42	[0.71]	0.00	5.00	58	0.00	0.00	2.43	9.62
INCOM	0.72	[0.90]	0.00	4.00	85	0.00	0.00	1.25	1.28
DR	0.82	[0.93]	0.00	7.00	101	1.00	0.00	2.11	10.20
FABCOM	0.43	[0.68]	0.00	3.00	61	0.00	0.00	1.72	3.11
DV2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
INC2	0.03	[0.18]	0.00	1.00	6	0.00	0.00	5.16	24.94
DR2	0.03	[0.18]	0.00	1.00	6	0.00	0.00	5.16	24.94
FAB2	0.06	[0.23]	0.00	1.00	10	0.00	0.00	3.84	12.96
ALOG	0.06	[0.23]	0.00	1.00	10	0.00	0.00	3.84	12.96
CONTAM	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	2.58	1.79	0.00	10.00	155	2.00	2.00	0.78	1.09
Lvl 2 Sp Sc	0.13	[0.37]	0.00	2.00	20	0.00	0.00	2.96	8.70
WSum6	7.08	5.35	0.00	28.00	155	6.00	0.00	1.03	1.66
AB	0.20	[0.51]	0.00	3.00	27	0.00	0.00	2.82	8.26
AG	0.94	1.08	0.00	7.00	103	1.00	0.00	1.73	5.45
COP	2.09	1.35	0.00	6.00	157	2.00	2.00	0.54	0.06
CP	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
GOODHR	5.13	2.15	0.00	13.00	173	5.00	4.00	0.42	0.68
POORHR	1.97	1.57	0.00	8.00	147	2.00	1.00	1.10	1.56
MOR	0.92	[0.96]	0.00	4.00	103	1.00	0.00	0.84	0.13
PER	0.87	[1.01]	0.00	7.00	101	1.00	0.00	1.95	7.37
PSV	0.10	[0.33]	0.00	2.00	15	0.00	0.00	3.63	13.73

Table 12.14. Frequencies for 36 Variables for Nonpatient Adults (N = 175).

Demography Variables									
Marital Status			Age			Race			
Single	45	26%	18-25	44	25%	White	150	86%	
Lives w/S.O	6	3%	26-35	56	32%	Black	14	8%	
Married	91	52%	36-45	44	25%	Hispanic	10	6%	
Separated	6	3%	46-55	15	9%	Asian	1	1%	
Divorced	23	13%	56-65	10	6%	Other	0	0%	
Widowed	4	2%	OVER 65	6	3%	Unlisted	0	0%	
Unlisted	0	0%							
			Education						
Sex						Under 12	2	1%	
Male	85	49%				12 Years	33	19%	
Female	90	51%				13-15 Yrs	101	58%	
						16+ Yrs	39	22%	
Ratios, Percentages, and Special Indices									
Styles			Form Quality Deviations						
Introversive	59	34%				XA% > .89	93	53%	
Pervasive Introversive	8	5%				XA% < .70	1	1%	
Ambitient	34	19%				WDA% < .85	20	11%	
Extratsensive	54	31%				WDA% < .75	2	1%	
Pervasive Extratsensive	7	4%				X+% < .55	19	11%	
Avoidant	28	16%				Xu% > .20	88	50%	
						X-% > .20	15	9%	
						X-% > .30	1	1%	
D-Scores			FC:CF+C Ratio						
D Score > 0	34	19%				FC > (CF+C) + 2	25	14%	
D Score = 0	115	66%				FC > (CF+C) + 1	40	23%	
D Score < 0	26	15%				(CF+C) > FC+1	53	30%	
D Score < -1	7	4%				(CF+C) > FC+2	29	17%	
Adj D Score > 0	57	33%							
Adj D Score = 0	102	58%							
Adj D Score < 0	16	9%							
Adj D Score < -1	5	3%							
Zd > +3.0 (Overincorp)	39	22%				S-Constellation Positive	0	0%	
Zd < -3.0 (Underincorp)	24	14%				HVI Positive	10	6%	
						OBS Positive	2	1%	
PTI = 5	0	0%	DEPI = 7	1	1%	CDI = 5	0	0%	
PTI = 4	0	0%	DEPI = 6	5	3%	CDI = 4	11	6%	
PTI = 3	1	1%	DEPI = 5	22	13%				
Miscellaneous Variables									
R < 17	12	7%				(2AB + Art + Ay) > 5	13	7%	
R > 27	25	14%				Populars < 4	8	5%	
DQv > 2	3	2%				Populars > 7	31	18%	
S > 2	58	33%				COP = 0	18	10%	
Sum T = 0	45	26%				COP > 2	61	35%	
Sum T > 1	27	15%				AG = 0	72	41%	
3r+(2)/R < .33	34	19%				AG > 2	12	7%	
3r+(2)/R > .44	53	30%				MOR > 2	11	6%	
Fr + rF > 0	26	15%				Level 2 Sp Sc > 0	20	11%	
PureC > 0	33	19%				GHR > PHR	152	87%	
PureC > 1	6	3%				Pure H < 2	29	17%	
Afr < .40	19	11%				Pure H = 0	3	2%	
Afr < .50	44	25%				p > a + 1	12	7%	
(FM+m) < Sum Shading	30	17%				Mp > Ma	41	23%	

Table 12.15 A Comparison of Findings for Twelve Variables for the Published Sample of 600 Nonpatients and the First 175 Nonpatients Tested in the Current Project.

Variable	Mean	SD	Range	Freq	Median	Mode	Sk	Ku
<i>R</i> (600)	22.32	4.40	14–43	600	22	23	0.86	1.90
<i>R</i> (175)	22.98	5.51	14–51	200	22	21	1.65	5.14
<i>Lambda</i> (600)	0.60	0.31	0.11–2.33	200	0.53	0.50	2.27	8.01
<i>Lambda</i> (175)	0.61	0.38	0.06–2.33	200	0.50	0.50	1.43	2.65
<i>Afr</i> (600)	0.67	0.16	0.23–1.29	600	0.67	0.67	0.35	0.65
<i>Afr</i> (175)	0.61	0.18	0.21–1.26	175	0.63	0.67	0.19	0.35
<i>XA%</i> (600)	0.92	0.06	0.57–1.00	600	0.94	0.96	–1.34	3.68
<i>XA%</i> (175)	0.89	0.07	0.69–1.00	175	0.90	0.90	–0.75	0.49
<i>WDA%</i> (600)	0.94	0.06	0.54–1.00	600	0.95	1.00	–1.42	4.93
<i>WDA%</i> (175)	0.91	0.06	0.69–1.00	175	0.92	0.95	–0.98	1.29
<i>X+%</i> (600)	0.77	0.09	0.35–1.00	600	0.78	0.80	–0.86	2.33
<i>X+%</i> (175)	0.68	0.11	0.35–0.95	175	0.69	0.67	–0.55	0.25
<i>Xu%</i> (600)	0.15	0.07	0.00–0.45	600	0.15	0.13	0.54	0.86
<i>Xu%</i> (175)	0.21	0.09	0.05–0.49	175	0.21	0.16	0.50	–0.07
<i>X–%</i> (600)	0.07	0.05	0.00–0.43	513	0.05	0.04	1.41	4.56
<i>X–%</i> (175)	0.10	0.06	0.00–0.31	163	0.10	0.05	0.77	0.72
<i>SumT</i> (600)	0.95	0.61	0–4	490	1.00	1.00	0.83	3.33
<i>SumT</i> (175)	0.90	0.64	0–2	130	1.00	1.00	0.08	–0.52
<i>Fr+rF</i> (600)	0.11	0.43	0–4	48	0.00	0.00	4.98	30.45
<i>Fr+rF</i> (175)	0.26	0.81	0–7	27	0.00	0.00	4.81	30.77
<i>EA</i> (600)	8.66	2.38	2–18	600	9.00	9.50	–0.04	0.42
<i>EA</i> (175)	9.43	3.39	2–24	175	9.50	8.00	0.82	2.08
<i>es</i> (600)	8.34	2.99	3–31	600	8.00	7.00	1.43	6.58
<i>es</i> (175)	9.05	3.99	2–34	175	9.00	8.00	1.98	9.16

sample, the comparative similarities between the two groups tend to support the notion that published data for the sample of 600 nonpatients is probably representative. As such, it provides a reasonable basis to gain some understanding of the response rates for the coded features of responses. It also provides a source to identify the proportion of nonpatients that can be expected to fall within, or outside of, established parameters for various ratios and other indices that form the core of structural data from which interpretive principles have been developed.

REFERENCES

- Exner, J. E. (1978). *The Rorschach: A Comprehensive System. Volume 2: Current research and advanced interpretation*. New York: Wiley.
- Exner, J. E. (1986). *A Rorschach Workbook for the Comprehensive System* (2nd ed.). Bayville, NY: Rorschach Workshops.
- Exner, J. E. (1988). Problems with brief Rorschach protocols. *Journal of Personality Assessment*, 52, 640–647.
- Exner, J. E. (1990). *A Rorschach Workbook for the Comprehensive System* (3rd ed.). Asheville, NC: Rorschach Workshops.
- Exner, J. E. (2001). *A Rorschach Workbook for the Comprehensive System* (5th ed.). Asheville, NC: Rorschach Workshops.
- Exner, J. E. (2002). A new nonpatient sample for the Rorschach Comprehensive System: A progress report. *Journal of Personality Assessment*, 78, 391–404.
- Exner, J. E., Weiner, I. B., & Schuyler, W. (1976). *A Rorschach Workbook for the Comprehensive System*. Bayville, NY: Rorschach Workshops.
- Shaffer, T. W., & Erdberg, P. (2001). *An international symposium on Rorschach Nonpatient Data: World-wide findings*. Annual meeting, Society of Personality Assessment, Philadelphia.
- Shaffer, T. W., Erdberg, P., & Haroian, J. (1999). Current nonpatient data for the Rorschach, WAIS-R, and MMPI-2. *Journal of Personality Assessment*, 73, 305–316.

PART FOUR

Interpretation

CHAPTER 13

General Guidelines Regarding Interpretation

Although some aspects of Rorschach interpretation are rather simple, the overall interpretive process is neither simple nor mechanistic. To the contrary, it is complex and can be demanding. It is complex because it requires that the interpreter maintain a framework of logical conceptualization, without which it is impossible to develop meaningful conclusions. The process is demanding because it includes a necessity for the interpreter to frequently challenge the integrity of the data. On the other side of the coin, the routines of interpretation, that is, systematically questioning data and conceptually organizing findings, are not difficult to learn if the student of the test has each of three basic prerequisites.

BASIC PREREQUISITES

The first prerequisite is that the interpreter have an understanding of the nature of the test and the complex operations involved in forming and selecting responses. Once the responses are coded or scored, compiled sequentially, and used as a basis for numerous calculations, three interrelated data sets will exist. They consist of: (1) the verbiage used by the person when giving answers or responding to questions raised by the examiner, (2) the sequence in which the responses have occurred as reflected in both the substance of answers and the coding of them, and (3) the structural plot of frequencies for the coded variables from which the data for the numerous variables, ratios, percentages, and indices are derived.

Collectively, these three data sets form the interpretive substance of the test. Typically, they will yield enough information to construct a valid and useful description of the psychology of the individual. The description often becomes much more precise when the interpreter addresses each in the context of the elements that have contributed to the formation and selection of answers.

Two other prerequisites are also quite important if proficiency in interpretation is to be achieved. One of these is a reasonably good understanding of people and the notion of personality. This does not mean that the Rorschach data should be interpreted directly in the context of any particular theory of personality. That probably is a mistake. Rorschach based conclusions can be translated into any of a variety of theoretical models concerning personality, but before doing so, the data should be interpreted in a manner that is consistent with findings on which their validity has been based.

The interpretation should always proceed with the objective of developing an understanding of the person as a *unique* individual. The awareness that no two people are exactly alike should prompt any interpreter to strive for an integration of findings about characteristics such as thinking, emotion, self-image, controls, and other features in a manner that highlights the individuality of the subject as much as possible.

The other prerequisite for Rorschach interpretation is a good working knowledge of psychopathology and maladjustment. This does not mean

a simple awareness of diagnostic labels, or a naive assumption that concepts such as *normal* and *abnormal* establish discrete criteria from which assets and liabilities can be identified. Rather, a good understanding of psychopathology and/or maladjustment evolves from an appreciation of how characteristics can become liabilities, and how various mixtures of liabilities breed forms of internal and/or external maladjustment.

SOME PROCEDURAL GUIDELINES FOR INTERPRETATION

The interpretive process flows rather easily when the interpreter has a realistic awareness concerning the procedures and objectives. It establishes an orientation that will help the interpreter to avoid the many pitfalls that can create flawed hypotheses or misleading conclusions. It involves several elements, each of which will contribute in some way to the integration of information. This awareness not only includes an understanding of the nature of the test situation, but also a sense regarding the integrity of the data, the routines by which the data are reviewed, and the principles from which hypotheses are formulated.

The Subject and the Test Situation

Interpretation proceeds most easily when the interpreter has some information about the person being tested, and the circumstances related to the testing. Completely blind analysis are interesting academic exercises and can yield some valid findings, but in the real world of assessment some basic information about the subject, such as, age, sex, marital status, educational background, and information about the circumstances of the testing create a framework that makes it easier to integrate findings in a meaningful way.

Sometimes, the conditions under which the testing was done may create special motivational sets that can have some influence on the selection of responses that are given, or the manner in

which responses are articulated. This is not to suggest that the motivation or set of the subject will alter the test data markedly, for that is rarely the case. Nevertheless, an awareness of the probable set of the person while taking the test will often provide a basis that can help the interpreter to clarify specific findings.

For instance, the majority of Rorschachs are administered under conditions in which people are in some disarray or discomfort because they are experiencing problems that they have not been able to resolve. Most adults taking the Rorschach under these circumstances tend to be "cautiously open" and usually are not influenced very much by unusual sets about the test or test situation, especially when they have been provided with information about the assessment procedures. But there are other circumstances in which the set of the person concerning the test or the testing situation may be much different than typical for the adult patient seeking help.

For example, it is not uncommon for troubled children to have a more defensive set about the test than troubled adults, usually because of a mistrust or fearfulness of the situation. This defensiveness can manifest in the test data as a stylistic phenomenon, and often interpreters are sorely challenged to decide whether the stylistic feature is situational or a core element in the psychological structure.

Similarly, a person charged with murder and hoping to be declared incompetent will have a much different set about taking the test than a person seeking advancement in an employment situation. In the former, responses often are overelaborated, sometimes in ways that seem quite bizarre. In the latter, the person usually is much more cautious and strives to present a very conventional picture. Likewise, an individual who is involved in litigation because of psychic trauma can be expected to have a much different orientation about the test than a parent seeking custody of a child.

Ordinarily, these varied sets about the test do not alter the overall data set substantially, but not

all of the data of the Rorschach represents static personality features. Sometimes a given situation does cause a person to react in a manner differently than he or she might under another situation and, typically, the interpreter should be able to detect most of these differences.

Cumulative research findings usually enable the interpreter to discriminate those characteristics that are situational or transient from those that are more chronic or stable in the psychology of the person. However, frequently that discrimination can be made with a sense of certainty *only if* the interpreter is aware of the circumstances and/or conditions that have led to the testing.

THE DEVIATION PRINCIPLE

The interpretive process usually begins in a molecular manner, that is, each data point in a cluster of variables is studied by itself and in relation to a few other variables. Often this molecular approach results in the formulation of rather simple and/or concrete hypotheses. Most of these evolve from the *deviation principle*, that is, a datum is seemingly very different than expected when normative findings are used as the basis for the expectation.

The use of deviations to generate hypotheses is a standard nomothetic approach to the interpretation of test data and has considerable value in Rorschach interpretation. However, it is also a procedure that can lead to overly simplistic or even misleading interpretive conclusions. When a deviation is noted for a variable, there is a temptation to draw a conclusion prematurely. For instance, suppose an adult protocol includes four COP responses. This is considered a high frequency when compared to the median and modal values for nonpatient adults. Generally, COP responses are regarded favorably, and the presence of four in a record will probably cause any interpreter to hypothesize that the person regards interactions with others very positively and is probably the type of person who interacts easily. Such a hypothesis might be true, *but it might not*

be true and certainly should not be regarded as a hard, fast conclusion.

It is easy to understand how some interpreters become overly involved with deviations. The most common cause is an excessive dependence on published normative and reference data. It is true that they are quite important to the understanding and utilization of the test data and, if applied wisely, they aid the interpreter considerably. They are the basic sources from which unique features are identified, but if they are applied in a naive, concrete, or casual manner, they can lead to interpretive conclusions that are very misleading.

The tendency to misuse normative data and apply deviation findings in a narrow or concrete manner is probably encouraged by the relatively large numbers of validation studies concerning Rorschach variables that tend to convey the notion that each is related to some discrete feature. This promotes the notion that variables can be interpreted in a singular context.

Unfortunately, some interpreters tend to become caught up in this notion and ignore the host of interrelationships that exist among psychological characteristics and operations.

When these interrelationships are disregarded and an interpretive postulate is formulated only from a single variable, the likelihood of error is substantial because this kind of interpretive strategy ignores additional data that will bear directly on whether the deviation based hypothesis should be accepted, rejected, or modified. Disconnected hypotheses inevitably lead to a disconnected picture that, at best, fails to capture the organization of the person, or even worse, presents misleading or distorted conclusions.

For instance, it was noted earlier that an interpreter might be tempted to hypothesize that the presence of four COP responses indicates that the person usually regards interactions among people very positively and probably interacts with others quite easily. It is a postulate that is consistent with some of the findings about cooperative movement answers. However, suppose that (1) three of the

four COP responses also have a special score for aggressive movement (AG), (2) that two of the four COP responses are scored as *M* -, and (3) all of the human contents in the protocol are (*H*) or (*Hd*). These three additional bits of data cause the initial hypothesis to be rejected. The presence of the four COP answers remains important, but several more data points would require study before any logical hypothesis could be formulated about them.

Competent interpretation uses deviation findings wisely and avoids drawing conclusions prematurely. Deviation based hypotheses, like hypotheses derived from other data sources in the test, become cumulative. As the overall data are reviewed, findings become additive and gradually the simple hypotheses that were formulated early in the interpretive process become broader and more precise, and ultimately capture something of the uniqueness of the individual who has taken the test.

CHALLENGING THE INTEGRITY OF THE DATA

The interpreter should always harbor a sense of concern about the integrity of the data. Questions regarding whether the protocol was truly recorded verbatim, or whether the codings of the responses are correct should be raised rather often during the interpretive process. This sense of concern is especially important as the structural data are reviewed. The structural data are derived from coding decisions for each response and, as such, are dependent on the accuracy of those decisions. Every interpreter should always be aware that it is impossible to overemphasize the importance of accurate coding of the responses, compiling the sequence of scores correctly, recording frequency data precisely, and accurately calculating the numerous ratios, percentages, and derived variables. Thus, an attitude of concerned skepticism forms an important cornerstone in the interpretive process.

There are some kinds of Rorschach mistakes that should never occur. Examiners should *never*

fail to make a verbatim record of the verbalizations of the subject. Similarly, there is no excuse for failing to compile the sequence of scores exactly, record frequencies accurately, or complete the variety of calculations correctly. Other kinds of mistakes are unwanted, but they do occur. These are the errors that happen as the responses are scored or coded. This is an area in which even the most conscientious examiner may err occasionally.

Scoring or coding errors fall into one of two categories: omission or commission. The most common among experienced scorers are those of omission, that is, neglecting to include a determinant in a complex blend, failing to code a pair, forgetting a Popular, or neglecting secondary contents. Less experienced scorers make errors of omission too, but they also make errors of commission more frequently. For example, neglecting the step-down principle and coding *C* instead of *CF*, scoring a *C'* determinant instead of a *Y* determinant when the intent of the subject is not clear, selecting the wrong *Z* score, coding *Vista* when the answer is really *FD*, or selecting the wrong critical special score for answers containing flawed logic or strange wording.

Fortunately, the Structural Summary evolves from a wealth of data. Thus, while errors in the scoring of responses are undesirable, the presence of one or two mistakes usually does not alter the *interpretive significance* of the structural data. This is because the errors do not cause the values of a frequency, ratio, percentage, and so on, to change so dramatically that an interpretive hypothesis related to it or derived from it will change. On the other hand, there are circumstances in which even one error can impact substantially on interpretation. For instance, the failure to code *FT* or *TF* when it is present in the Popular response to Card VI could yield structural datum indicating that *T* = 0. When the value for *T* is zero, it usually is an unexpected deviation that has importance in the cluster regarding interpersonal relations. *T* is also a variable that contributes to the values of *es* and *Adjes* that, in turn, relate to the *D* scores. Obviously then, there are instances in which a single

mistake can have a domino effect leading to more than one error when interpretive hypotheses are formulated. Consider for example, the following answer to Card I:

RESPONSE

It re me of a woman tied to a stake w smoke all around her

INQUIRY

E: (Rpts S's resp)

S: She's in the center w her hands up in the air & ths prt is dark, lik smoke rising all around her

E: Rising?

S: Lik floating upward, fr a fire, she's standg there, helpless, lik Joan of Arc, u don't c the fire, just the smoke

Most of the coding for this response is fairly straightforward, but it also contains some verbiage that is not sufficiently clear regarding the intent of the person, and a choice between either of two likely scoring possibilities is required. It is the manner in which the word "dark" has been used, which should cause any coder to ponder about whether the coding of *YF* or *CF* is correct. The correct scoring is:

W + M^p.m^p.YFu H, Fi, Ay 4.0 MOR.

Some coders might erroneously select a *CF* scoring instead of *YF*, neglecting the rule that states, if the intent is not clear when the words light or dark are used, the coding for diffuse shading is more appropriate. Assume that the correct structural data for the record in which this response has occurred as shown in data set 1 at the bottom of this page.

If the coder had entered *CF* instead of *YF*, the values for several variables would be altered. Each of these alterations is highlighted in bold in data set 2 at the bottom of the page.

If the response in question is coded *correctly*, the data set should generate the following postulates. First, the values for the D score of -1 and the Adjusted D score of 0, when considered in light of *EA*, suggest the presence of situationally related stress that has created a condition of stimulus overload. Second, because the D score has a minus value, the overload condition creates a potential for impulsiveness. Third, as the *EB* (5:2.5) indicates introversion, it is quite likely that some of this impulsiveness will impact on the natural ideational style, that is, some patterns of thinking might be less clear or more fragmented, and some decisions might be formed more hastily than is usually the case. These hypotheses would be evaluated carefully as other findings unfold, but ultimately they would probably form the basis for an intervention recommendation concerning the situational stress problem.

Data Set 1

EB = 5:2.5	EA = 7.5	FC:CF + C = 3:1
eb = 6:5	es = 11	D = -1
	Adjes = 10	AdjD = 0
FM = 5	C' = 2	T = 1
m = 1	V = 0	Y = 2
		SumC':WSumC = 2:2.5

Data Set 2

EB = 5:2.5	EA = 7.5	FC:CF + C = 3:1
eb = 6:5	es = 11	D = -1
	Adjes = 11	AdjD = -1
FM = 5	C' = 3	T = 1
m = 1	V = 0	Y = 1
		SumC':WSumC = 3:2.5

Interpretive postulates derived from the *incorrect* data set would be quite different. There would be no mention of situational stress. Instead, because both D scores are -1 , it would be hypothesized that the overload state is chronic rather than situational, noting that it limits tolerance for stress, reduces the likelihood of a person's ability to function effectively in complex or demanding situations, and creates a distinct potential for ideational and behavioral impulsiveness. In relation to the *EB* (5:2.5), the unexpected elevation in the number of *C'* responses, and the fact that there is a higher left side value in the *SumC':WSumC* ratio, might easily lead to a postulate that the source of the overload includes problems regarding a tendency to be overly cautious about displaying emotions openly and a proneness to internalize feelings. It would also be hypothesized that the tendency to avoid open expression of feelings, and hold them in instead, probably breeds considerable discomfort that might easily manifest as tension, anxiety, or even depression from time to time.

It might also be logically noted that this sort of emotional constriction and tendency to internalize, especially when considered in light of stress tolerance problems, easily could be regarded as a basic foundation from which somatic symptoms often evolve. Although these erroneous hypotheses would be evaluated carefully in light of other data, it is likely that final recommendations would include a suggestion that intervention entail some focus on the apparent chronic difficulties in handling emotions.

The Barely Yield Phenomenon

While the previous example illustrates how a single coding error may, in some instances, lead to misleading interpretive hypotheses, it also illustrates another issue about which interpreters should be particularly cautious. This is the instance in which the data *barely* yield a seemingly important finding. For instance, if confronted with the correct data set for the example, the in-

terpreter should quickly be aware that the Adjusted D score would have a minus value if either of the *Y* responses were coded incorrectly. In other words, the Adjusted D is just "barely" zero.

Likewise, if presented with the incorrect data set, the astute interpreter would note that the Adjusted D score would be zero if the value for *EA* was one point greater, or the value for the Adjusted *es* was one point less. In addition, it would be noted that the seemingly important higher left side value in the *SumC':WSumC* ratio is greater by only one-half point. The awareness of these narrow differences should prompt the interpreter to carefully review the coding for the responses containing items related to these variables.

If the incorrect data set from the example were to be challenged, the review would probably focus first on the value of *EA*, and specifically on the four answers for which chromatic color has been scored. The obvious issue is whether the codings are correct. If one of the *FC* codes should be *CF*, it would change the interpretation of the *SumC':WSumC* ratio, and if two of the *FC* codes should be *CF*, a change in both D scores would occur. Conversely, if the answer scored as *CF* is really an *FC*, the integrity of the postulates derived from the D scores and the *SumC':WSumC* ratio would be strengthened.

A second challenge prompted by the barely yield phenomenon would involve the responses for which the grey-black and shading codes have been assigned. In this case, the texture response should be studied to ensure that the correct coding involves *T* and not *Y*. The same issue should be raised about the three *C'* answers and the *Y* response should be reviewed to make sure that it is not *C'*. If a *C'* code had been entered incorrectly, as in the illustration, it is at this point that the error would be detected, the data changed accordingly, and the initial hypotheses altered.

Reviewing the coding for several responses in a protocol is not very time consuming. It will probably require only a few minutes for the experienced Rorschacher, and not very much longer for the conscientious novice. Optimally, it is

probably wise for any interpreter to review the coding of all responses before proceeding to the interpretation. This is not necessarily to challenge the scoring that has been assigned, but simply to try to ensure that omission or commission errors have not occurred.

Even the most experienced Rorschacher should never feel overly confident about his or her scoring. A review of all of the coding is especially important if the person interpreting the protocol is not the same as the person who administered and coded the test. This sort of cautious review also provides opportunities to assess the clarity with which the protocol has been recorded, note instances in which the inquiry might have included an extra question or two, and evaluate the usefulness of the location sheet.

Any challenges to the accuracy by which the coding for each of the responses has been compiled into the Sequence of Scores, or to the calculations necessary to derive the various ratios, percentages, and so on, will probably occur during

the interpretive process. During the interpretation, shifting back and forth from the raw protocol to the Sequence or the Structural Summary is often required. These shifts usually are provoked by questions, such as, to which cards have Popular answers been given, where did the *S* responses occur, what is the content of the reflection answer, or what is the nature of a DR coded for a specific response? Questions such as these not only serve to refine the interpretation but they also constitute forms of challenge that seek to avoid interpretive propositions that are overly narrow or concrete.

INTERPRETING BY CLUSTERS

Most of the test data fall into clusters. These are shown in Table 13.1. The first seven of these clusters relate to basic features of people and the data for each should always be reviewed during the interpretive process. The data for the eighth cluster, situation related stress, are reviewed only when

Table 13.1 Clusters Related to Several Psychological Features.

Component or Function	Variables
Affective Features	DEPI, CDI, EB* (extratensive style), Lambda, EBPer, eb (right side value [Sum C'+Sum T+Sum V+Sum Y]), SumC': WSumC, Afr, 2AB+(Art+Ay), CP, FC:CF+C, Pure C (frequency & quality), S, Blends, Col-Shad Blends, Shading Blends
Capacity for control stress tolerance	D Score, Adj D Score, CDI, EA (Sum M, WSumC), EB, Lambda, es & Adj es (FM, m, Sum T, Sum V, Sum C', Sum Y)
Cognitive mediation	R, Lambda, OBS, XA%, WDA%, X-%, FQ-, S-, (review minus answers for homogeneity & levels of distortion) P, FQ+, X+%, Xu%
Ideation	EB* (introversive style), Lambda, EBPer, a:p, HVI, OBS, MOR, eb (left side value [FM+m]), Ma:Mp, 2Ab + (Art+Ay), Sum6, WSum6, Quality 6 special scores, MQ, Quality of M responses
Information processing	Lambda, EB, OBS, HVI, Zf, W:D:Dd, Location Sequencing, W:M, Zd, PSV, DQ, DQ Sequencing
Interpersonal perception	CDI, HVI, a:p, Pd, SumT, Sum Human Contents, H, GHR, PHR, COP, AG, PER, Isolation Index, Content of M & FM Responses that Contain a Pair
Self-perception	OBS, HVI, Fr+rF, 3r+(2)/R, FD, SumV, An+Xy, MOR, Pure H:Nonpure H, Codings for Human Content responses, Content of all Minus, MOR, Human, & Movement responses
Situation-related stress	D Score, Adj D Score, EA, EB (zero values), m, SumY, SumT, SumV, Blend Complexity, Col-Shd & Shd BI (m & Y), Pure C, M, M-, M noform

Note: EB is stylistic *only* if EA is greater than 3.5 and one side of the EB exceeds the other by 2 points or more if EA is 10 or less, or more than 2 points if EA is greater than 10.

there is evidence in the test findings of situationally related stress. Some variables appear in more than one cluster. This is because they can relate to more than one psychological feature or operation.

For example, minus answers relate to both mediation and self-perception. Likewise, some movement contents are associated with both self- and interpersonal perception. High *Lambda* values are relevant to findings concerning controls, affect, processing, mediation, and ideation, and a positive Hypervigilance Index is pertinent to processing activity, ideation, self-perception, and interpersonal perception.

The fact that some variables are shown in more than one cluster does not necessarily mean that they will always have a significant input in each cluster in which they are listed. For instance, if the value for MOR is zero or one, that finding is useful and important to the interpreter when evaluating the data concerning self-perception but it will have no relevance to the review of data concerning ideation. Conversely, if the value for MOR is 3 or greater, the interpreter will use the datum twice, once to study some of the negative features in self-image and again when evaluating thinking, because elevated values for MOR signal a tendency for negative attitudes about the self to create a markedly pessimistic set that can influence thinking.

Thus, a variable may contribute to the findings in one cluster only if the value signals a deviation, whereas the same variable may always be important to findings in another cluster, regardless of its value.

PROCEEDING SYSTEMATICALLY

Naturally, any interpretation of a Rorschach protocol must include consideration of all of the test data, which fall into three general groupings, the *Structural Data*, the *Sequence of Scores*, and the *Verbalizations*. When each is scrutinized in the context of psychometric reality, the structural data will be viewed as constituting the "hard data" of the Rorschach and it is reasonable to assume that they will offer the greatest utility

in forming basic interpretive hypotheses. However, some of those hypotheses can be too general, too narrow, or even misleading. Issues frequently arise during the study of structural variables that necessitate turning to the sequence and/or the verbal material before proceeding on to other structural variables.

Table 13.2 shows the order by which the data for each cluster should be addressed.

It will be noted from Table 13.2 that, in some clusters, the shifting from one data group to another is part of the systematic interpretive routine. In other instances, a shift from one group to another will be prompted when the interpreter is confronted with an unclear finding. Flexibility in moving from one data group to another is crucial if a comprehensive and meaningful interpretation of the test is to be achieved. The sequencing of features, for instance, often provides information that will test, clarify, or expand postulates developed from the structural data. At times, unusual sequencing effects give rise to new hypotheses. Similarly, the verbal material provides a rich source from which postulates can be clarified or new hypotheses developed.

PRELIMINARY HYPOTHESES AS BUILDING BLOCKS

The interpretation proceeds by using a molecular framework to build a global picture. As the various components of each cluster are surveyed, a series of hypotheses are formulated. At first, they are usually simple and often rather general but as the interpretive steps proceed, the hypotheses become additive and gradually they are molded into a more precise set of statements concerning whatever feature is being studied. Sometimes, a hypothesis derived from one step in the interpretive routine may seem to differ from other postulates, but none should be rejected simply because it does not seem compatible with other propositions generated from the review. Typically, these apparent differences are reconciled during the summation of findings.

Table 13.2 Order for Reviewing Variables Within Each Cluster.

Control and Stress Tolerance		Information Processing	
Step 1	Adjusted D Score and CDI	Prerequisites (L,EB,OBS,HVI)	
Step 2	EA	Step 1	Zf
Step 3	EB and Lambda	Step 2	W:D:Dd
Step 4	es and Adj es	Step 3	Location Sequencing
Step 5	eb	Step 4	W:M
Situation-Related Stress		Step 5	Zd
Step 1	D Score in relation to es and Adj es	Step 6	PSV
Step 2	Difference between D & Adj D Scores	Step 7	DQ
Step 3	m & Y	Step 8	DQ Sequencing
Step 4	T, V, 3r+(2)/R in relation to History	Mediation	
Step 5	D Score (re Pure C, M-, M no form)	Prerequisites (R,OBS,L)	
Step 6	Blends	Step 1	XA% & WDA%
Step 7	Color-Shading & Shading Blends	Step 2	FQnone
Affective Features		Step 3	X-%, FQ- frequency, S- frequency
Step 1	DEPI & CDI	Step 3a	Homogeneity issues
Step 2	EB & Lambda	Step 3b	Minus distortion levels
Step 3	EBPer	Step 4	Populars
Step 4	Right Side eb & variables related to it	Step 5	FQ+ frequency
Step 5	SumC': WSumC	Step 6	X+% & Xu%
Step 6	Affective Ratio	Ideation	
Step 7	Intellectualization Index	Step 1	EB & Lambda
Step 8	Color Projection	Step 2	EBPer
Step 9	FC:CF+C	Step 3	a:p
Step 10	Pure C	Step 4	HVI, OBS, MOR
Step 11	Space responses	Step 5	Left side eb
Step 12	Blends (Lambda & EB)	Step 6	Ma:Mp
Step 13	m & Y blends	Step 7	Intellectualization Index
Step 14	Blend complexity	Step 8	Sum6 & WSum6
Step 15	Color-shading blends	Step 9	Quality 6 Spec Scores
Step 16	Shading blends	Step 10	M Form Quality
Self-Perception		Step 11	Quality of M responses
Step 1	OBS & HVI	Interpersonal Perception	
Step 2	Reflections	Step 1	CDI
Step 3	Egocentricity Index	Step 2	HVI
Step 4	FD and Vista (in relation to History)	Step 3	a:p Ratio
Step 5	An+Xy	Step 4	Food responses
Step 6	Sum MOR	Step 5	Sum T
Step 7	H:(H)+Hd+(Hd) & Review codings for Human Content responses	Step 6	Sum Human Contents & Sum Pure H
Step 8	Search for projections in:	Step 7	GHR:PHR
a	Minus responses	Step 8	COP & AG frequencies & codings
b	MOR responses	Step 9	PER
c	M & Human Content responses	Step 10	Isolation Index
d	FM & m responses	Step 11	Contents of M & FM responses with pairs
e	Embellishments in other responses		

The number of propositions generated from each cluster of data will vary with the richness of the data and the deductive skills of the interpreter. In some cases, findings from a cluster yield little more than some pedestrian-like postulates about a feature. But even those become important in the integration of findings because they are part of the total picture and, at times, will cause other hypotheses generated from more unique or dramatic data to be tempered considerably.

Any single hypothesis may be questionable or undependable. Thus, sound interpretation depends on the sequential accumulation and organization of hypotheses in a manner that highlights and clarifies issues that might otherwise be described inappropriately or even neglected.

All of the steps listed in Table 13.2 are sources from which preliminary postulates are derived, and it is especially important that none be addressed casually because the findings are not unusual or dramatic. Deviant or dramatic findings are intriguing and always warrant the formation of a postulate because they usually represent some distinctive information. For instance, a single reflection answer, multiple texture responses, or a response such as "parts of a body that are in a state of decay" each convey important information and clearly sanction some hypothesizing by the interpreter. However, none of those findings necessarily denote a liability. Their full significance can be judged only in light of all other data, including the usual or commonplace. Nondeviant findings typically are as important or even more

important than deviation based findings when a full picture unfolds.

For example, consider the data set concerning information processing shown below. It is from a 22 response protocol. There is nothing markedly deviant or dramatic about any of these data. Nonetheless, they do provide important information about the person and several useful postulates can be formulated from these data when they are reviewed in the order suggested in Table 13.3.

The interpretation of the processing cluster requires some prerequisite information so that the data can be addressed in the context of response styles or sets if necessary. It is for this reason that the *EB*, *Lambda*, *HVI*, and *OBS* variables are also shown. They indicate that this man has an ideational style (*EB*) and a *Lambda* of .67. Neither of these findings suggests that there is any reason to anticipate unusual features in his processing activity. Similarly, the *OBS* and *HVI* are both negative, indicating that there is no reason to believe he might be perfectionistic or unduly guarded when processing new information.

The *Zf* is in the expected range, suggesting that he strives to organize input about as often as most adults. The *W:D:Dd* ratio of 7:13:2 seems to indicate that he is reasonably economical in the manner by which he processes information, however, examination of the Location Sequencing indicates there is no reason to believe that economy is a significant element in determining his processing tactics. Six of his seven *W* responses are

Table 13.3 Processing Related Variables for a 26-Year-Old Male.

EB = 5:2.5	Zf = 12	Zd = +0.5	DQ+ = 7
L = 0.67	W:D:Dd = 7:13:2	PSV = 0	DQv/+ = 0
HVI = NO	W:M = 7:5		DQv = 0
OBS = NO			

Location & DQ Sequencing

I: Wo.Do.Ddo	VI: Do.D+
II: D+.DSo	VII: D+.Wo
III: D+.Ddo	VIII: W+.Do
IV: Wo.Do.Do	IX: Wo.D+
V: Wo	X: W+.Do.Do

first answers, and four of the seven are given to blots for which considerable effort is required to form a *W* answer (VII, VIII, IX, and X). The *W:M* ratio of 7:5 suggests that he sets processing goals that are consistent with expectations for an introverted person.

The *Zd* score of +0.5 and the absence of PSV responses indicate that his scanning tactics are probably efficient. The *DQ+* value of 7 plus the fact that these seven responses are distributed across seven different blots suggests that his organizational activities tend to be relatively sophisticated and are probably similar to those of most adults.

After reviewing these findings, the casual interpreter might be prone to simply conclude that there is *nothing wrong* with the processing activities of this person and include a statement to that effect in his or her report. Such a statement, even if correct, would be inappropriate because it ignores information concerning probable assets of this individual. The fact that he does not appear to be overly involved or overly avoidant of complexity is important. Likewise, the fact that he strives to organize as much as most, and does so in a seemingly economical but reasonably sophisticated manner can be regarded as an important asset for this person.

In addition, the "nothing wrong" statement *might be incorrect!* There are several possible reasons, but none would be tested until the data for the other two clusters related to cognitive activity (mediation and ideation) are reviewed.

Assume, for instance, that the mediation data reveal that the protocol contains six minus responses and five of the six occur as the first responses to Cards I, IV, VIII, IX, and X. All five are *W* answers. Such a finding would require that the hypothesis derived from the *W:D:Dd* data and the *W:M* ratio be reevaluated and modified. Or, assume that four of the seven *DQ+* responses contain a FABCOM special score. If that were the case, the postulate suggesting that he organizes in a reasonably sophisticated manner would require some alteration, or it might even have to be discarded.

The previous example illustrates the importance of developing a summary of findings from a cluster review that organizes the postulates that have been formulated and that emphasizes both assets and liabilities. The summary, however, should be regarded as tentative. It constitutes a set of propositions that reflect the findings from all of the data in the cluster, but it remains in a provisional form because findings from other clusters may cause it to be modified.

When working in a cluster, the challenge for the interpreter is to make sure that the search through all of the data has been methodical and that he or she has avoided becoming trapped by the simplicity of findings. It is not enough to know that someone has this or that characteristic. Instead, the goal when working within a cluster focuses on a conceptualization of the characteristic being studied in terms of the operations related to it. Stated differently, it involves asking the questions: (1) what are the characteristics of this feature in this person, and ultimately (2) how does this feature interact with or relate to other features in the psychology of this person?

THE CLUSTER SEARCH ORDER

The interpretation proceeds cluster by cluster until all of the data have been exhausted, but the order by which the clusters are addressed is not always the same. Twelve *Key* variables have been identified, which, when set in an order of dominance or priority, appear to define the best order of cluster review.

In effect, the presence of a *Key* variable predicts which combination of two or three clusters of data will yield the data sources that will contribute the most substantial information about the core psychological features of the person. Generally, these are features that will be given considerable emphasis in forming any description of an individual. They are dominant elements of personality structure, and have a major impact on the psychological organization. They exert a significant influence on the way in which other features

are organized, and usually afford considerable direction to the psychological functioning of the person. Thus, the decision about which cluster of data to use as the starting point is important because the yield should form a centerpiece in the network of descriptive statements that ultimately will be generated.

The 12 Key variables and the recommended interpretive search strategies that should be employed are shown in Table 13.4. They are listed in an order of priority. The first Key variable that is positive defines the interpretive routine for the record.

An examination of the 12 Key Variables indicates that they represent two sorts of features. Although six of the variables (PTI > 3, DEPI > 5 and CDI > 3, DEPI > 5, D Score < Adj D Score, CDI > 3, Adj D Score < 0) deal with personality structure, they also focus more on the presence of

psychopathology or the potential for disorganization. The remaining six variables involve more basic personality styles, any of which can form the cornerstone of organization and functioning.

Most of the routines are straightforward, but in some cases the entire routine cannot be defined by simply using the first positive Key Variable. When this occurs, subsequent Key Variables, or Tertiary Variables, must also be used before the complete routine is established. Each of the strategies follows in a logical sequence so that each new finding merges neatly with those already developed. The routines shown in Table 13.4 are both empirically and logically developed. They are empirical in the sense that the first two or three clusters reviewed are likely to yield the greatest amount of information concerning the core features of the person. They are logical in the sense that the

Table 13.4 Interpretive Search Strategies Based on Key Variables.

Positive Variable	Typical Cluster Search Routine
PTI > 3	Processing > Mediation > Ideation > Controls > Affect > Self-Perception > Interpersonal Perception
DEPI > 5 and CDI > 3	Interpersonal Perception > Self-Perception > Controls > Affect > Processing > Mediation > Ideation
DEPI > 5	Affect > Controls > Self-Perception > Interpersonal Perception > Processing > Mediation > Ideation
D < ADJ D	Controls > Situation Stress > (The remaining search routine should be that identified for the next positive key variable or the list of tertiary variables.)
CDI > 3	Controls > Interpersonal Perception > Self-Perception > Affect > Processing > Mediation > Ideation
ADJ D is Minus	Controls > (The remaining search routine should be that identified for the next positive key variable or the list of tertiary variables.)
Lambda > 0.99	Processing > Mediation > Ideation > Controls > Affect > Self-Perception > Interpersonal Perception
FR+RF > 0	Self-Perception > Interpersonal Perception > Controls (The remaining search routine should be selected from that identified for the next positive key variable or the list of tertiary variables.)
EB IS Introversive	Ideation > Processing > Mediation > Controls > Affect > Self-Perception > Interpersonal Perception
EB IS Extratensive	Affect > Self-Perception > Interpersonal Perception > Controls > Processing > Mediation > Ideation
$p > a+1$	Ideation > Processing > Mediation > Controls > Self-Perception > Interpersonal Perception > Affect
HVI Positive	Ideation > Processing > Mediation > Controls > Self-Perception > Interpersonal Perception > Affect

sequence is designed so that each new finding merges with those already developed.

It is important to note that the twelve search strategies are not markedly discrete. Three of the clusters concerning cognitive activity, processing, mediation, and ideation are always interpreted in tandem, although not necessarily in the same order, because they are interrelated. Likewise, the clusters pertaining to self-perception and interpersonal perception also are always interpreted in tandem because of their interrelationship.

Tertiary Variables As Starting Points

Some protocols may not contain any positive Key Variables. When this occurs the starting point can be selected from positive findings among numerous Tertiary Variables. Table 13.5 provides a list of the Tertiary Variables that are used most frequently to determine the initial interpretive search pattern when *none* of the Key Variables is positive.

Unlike the Key Variables, Tertiary Variables do not have much predictive power. They do tend to highlight which cluster will yield the most

significant information about a person but do not predict which subsequent clusters will contain the most relevant supplemental information. Thus, the search routines shown in Table 13.5 that have been developed for Tertiary Variables should be considered as general guidelines for beginning the interpretations. They should not be regarded as inviolate. The recommended search pattern can be altered by the interpreter whenever some unusual circumstances exist that seem to warrant a different routine.

THE INTEGRATION OF FINDINGS

One of the special features of the Rorschach is that, typically, the resulting description of the person is generated from both nomothetic and idiographic findings. As such, it *can* capture something of the uniqueness of the person. The word "*can*" is afforded emphasis here because some interpretive summaries will fall short of highlighting the idiography of the individual. Sometimes this may happen because the data are very sparse. In most such cases, however, this happens because

Table 13.5 Search Strategies Based on Tertiary Variables.

Positive Variable	Typical Cluster Search Routine
OBS Positive	Processing > Mediation > Ideation > Controls > Affect > Self-Perception > Interpersonal Perception
DEPI = 5	Affect > Controls > Self-Perception > Interpersonal Perception > Processing > Mediation > Ideation
EA > 12	Controls > Ideation > Processing > Mediation > Affect > Self-Perception > Interpersonal Perception
M- > O or Mp > Ma or Sum6 Sp Sc > 5	Ideation > Mediation > Processing > Controls > Affect > Self-Perception > Interpersonal Perception
Sum Shad > FM+m or CF+C > FC+1 or Afr < 0.46	Affect > Controls > Self-Perception > Interpersonal Perception > Processing > Mediation > Ideation
X-% > 20% or Zd > +3.0 or < -3.0	Processing > Mediation > Ideation > Controls > Affect > Self-Perception > Interpersonal Perception
3r+(2)/R < .33	Self-Perception > Interpersonal Perception > Affect > Controls > Processing > Mediation > Ideation
MOR > 2 or AG > 2	Self-Perception > Interpersonal Perception > Controls > Ideation > Processing > Mediation > Affect
T = 0 or > 1	Self-Perception > Interpersonal Perception > Affect > Controls > Processing > Mediation > Ideation

the interpreter fails to integrate findings and, instead, presents a series of statements that simply summarize findings cluster by cluster.

Interpreters should strive for a conceptual integration of findings, that is, findings from each cluster are integrated with findings from the other clusters so that any hypotheses or conclusions are based on the total available information. The accumulated postulates and conclusions should be integrated logically with a careful view of the relationships between the numerous psychological features of the individual. It is not always an easy task, and this is one of the reasons that an understanding of people and the notion of personality were identified as important prerequisites for interpreters at the beginning of this chapter.

Actually, the process of conceptual integration is continuous throughout the interpretation. It occurs as the interpreter works through the data for each of the clusters and studies the personality features or psychological operations to which they are related. As findings accumulate within and across clusters of data, a picture gradually unfolds that

permits the interpreter to *conceptualize* the person in a broad framework of features such as response styles, controls, defensive strategies, cognitive activities, self-image, and interpersonal sets.

The final description requires an intelligent merging of the findings, both positive and negative, so that an overall portrait of a unique person gradually evolves and is cast in a framework that addresses the assessment issues that have been posed. Interpretation can be a time consuming process, but the actual amount of time involved lessens considerably as skill develops. In fact, once the interpreter reaches a semi-expert level, most Rorschachs can be interpreted accurately and thoroughly in 90 minutes or less.

The next several chapters focus on the tactics of within cluster interpretation. The order by which the variables are addressed and the interpretive rules that are applied are reviewed in detail. The final chapter in this part illustrates how the propositions and conclusions developed from the various clusters are integrated into a comprehensive description of the individual.

CHAPTER 14

Controls and Stress Tolerance

The order by which the clusters should be studied for purposes of learning the principles of interpretation regarding within cluster data could follow almost any sequence. It is probably most appropriate to begin with the cluster concerning controls for two reasons. First, the issue of controls appears early in most of the search strategies derived from Key Variables. Second, the concepts of control and resources often relate directly to the study of other psychological features. This is especially true when an interpreter is struggling to understand the emotional and ideational functioning of a person.

THE CONCEPT OF CONTROL

The notion of control has not been a topic of systematic research in psychology, except for studies in experimental psychopathology. However, most of those investigations have focused on issues of classical and instrumental conditioning. As such, the findings can be related only indirectly to most of the theoretical concepts of control. Usually, theories about control have been cast in the psychoanalytic model of ego functioning and secondary process activity, or in models of personality in which need reduction or homeostasis are the centerpiece.

On the other hand, there have been numerous studies concerning emotional impulsiveness and, by implication, someone who is impulsive does not have good controls. Unfortunately, the term impulsive often has been applied loosely, and the criteria that have been used to identify impulsive

behaviors sometimes fails to discriminate between impulsive-like behaviors that are controlled versus those that are not controlled. For example, it is not unusual to find activities such as temper tantrums or crimes of passion included under the rubric of impulsive behaviors. Crimes of passion probably do include many cases in which *lability* does exist. Lability is a circumstance in which emotions become overwhelming and direct behavior. On the other hand, the vast majority of temper tantrums are *not* the products of lability. Instead, most are controlled actions that the child has learned to invoke as a way of influencing the actions of significant others.

In general, the concept of control is probably best defined as *the capacity to form decisions and implement deliberate behaviors that are designed to contend with the demands of a situation*. In effect, it refers to ability of the person to remain organized and directed, but this is not an *either-or* postulate. Controls may vary, and as such, they may diminish or strengthen depending on the circumstances of a situation. The best illustrations of this can be gleaned from an examination of the feelings and thinking of people in general.

Almost every person has had embarrassing moments during which their display of some emotion, such as joy, enthusiasm, fearfulness, apprehension, frustration, anger, and so on, was much more intense and/or more dramatic than appropriate for the situation. Typically, these are moments in which brief lapses of control occur and a response that is less adaptive or effective results.

Likewise, most people can recall occasions during which their feelings became so intense that reason was overwhelmed and behaviors occurred for which no control seemed to exist.

Similarly, thoughts usually are organized and directed, but almost every person has experienced times during which they have difficulty concentrating or maintaining focus, and almost everyone can recall incidents, usually brief, during which their thinking seemed random and aimless. These are instances in which the control of thinking is lessened and ideation becomes less well directed. In fact, some circumstances, created either by internal or external forces, can even cause thinking to become irrational and/or disconnected.

Most lapses in control are related to needs, in which the expression of more intense, less well-controlled feelings brings a sense of relief or gratification. Likewise, when concentrated thinking becomes interrupted and thoughts wander, as in daydreaming, or even when thoughts become disconnected, a welcome escape from the drudgery or stress of maintaining a more precise ideational focus is provided. When lapses in control over feelings or thinking occur, the issue of why this happened becomes quite important to any understanding of the psychology of the person. Sometimes, lapses in control are *psychologically permitted*. In other words, the person has sufficient capacity for control to prohibit a lapse but, for various reasons, does not. On the other hand, there are people who have more limited capacities for control, and they are prone to becoming overwhelmed, either temporarily or chronically. For them, the loss of control over feelings or thinking can happen frequently. In effect, they are victimized by their own limitations.

RORSCHACH ASSUMPTIONS RELATED TO CAPACITY FOR CONTROL

As noted, the capacity for control is contingent on a person's ability to draw on available resources to form and implement deliberate actions that are designed to contend with demand situations. There are three important conceptual issues that relate

directly to understanding control capabilities: resources, stimulus demand, and stress tolerance.

Resources

The concept of resource refers to the collective of cognitive capabilities that have been developed, including the manner by which feelings are identified and utilized. Available resources has little or nothing to do with the potential for psychopathology. Limited resources does not automatically breed faulty adjustment, and an abundance of resources does not necessarily lead to good adjustment and a pathology free existence. Seriously disturbed people often have a wealth of available resources, and many persons with limited resources are able to adjust to their world quite effectively.

The concept of resource does not necessarily mean that there is a closed energy system. It should not be considered to be the same concept as ego strength, although there can be a relation. Ego strength can be thought of as the effectiveness of mental activity (secondary process activity) when mediating between the needs, values, and external realities, while selecting and directing behaviors. When ego strength is weak or limited, faulty adjustment or pathology can be expected because of a failure to contend with internal conflict and/or a failure to weigh external reality adequately when selecting behaviors. Thus, while ego strength has a direct relationship to the potential for pathology, it is not necessarily contingent on the availability of resources.

There is a modest relationship between intelligence and available resources. People who are intellectually limited are likely to have less available resources than those who are intellectually average or above. However, the opposite does not seem to be true. Those who are of average intellectual ability often have as much, or even more, available resources when compared to those of above average intellectual ability.

Resource does have a direct relationship to the ability of the individual to control his or her behaviors. The more resources available, the more

likely the person is able to form and direct behaviors, *regardless* of whether or not those behaviors are productive or adaptive.

Stimulus Demand

The demands experienced by a person are an important issue in understanding capacities for control because, logically, if the level of demand exceeds the level of resource available to contend with demand, some sort of psychological disarray seems bound to occur. The result is a reduction in, or loss of control. Demands on the individual can originate either externally or internally, but the impact is always internal and takes the form of mental and/or emotional activity that is not initiated or necessarily controlled by the person.

This sort of psychological activity usually is not in the direct focus of attention. Instead, it is a more peripheral process involving either or both ideation and emotion. It tends to serve a stimulating function, like a signal system that prompts a person into action. Most of the time it serves a useful alerting purpose, but if it becomes excessive or inordinately diverse, it can be a disruptive force. For instance, emotions are created by any of a variety of sources. Some are created by needs. Others can result from instances in which feelings are not expressed openly or fully, and others may be the products of rumination about self image or self esteem.

Stress Tolerance

The third concept that relates directly to the capacity for control is stress tolerance. In effect, stress tolerance is a byproduct of available resources. As resources increase, so too does the ability to tolerate stress. Conversely, as resources are more limited, so too is a person's ability to tolerate stress. It is important to emphasize again that adequate capacity for control, or good stress tolerance, does not necessarily equate with good adjustment. It does not mean that behaviors selected and implemented will necessarily be effective, adaptive, or even logical. It simply means

that the person has sufficient resources accessible to be able to form and direct behavior. On the other hand, if a person's capacity for control is limited or inadequate, that is often a precursor to maladjustment as the tolerance for stress is also lowered.

When there is a limited or inadequate tolerance for stress, it is because either of two circumstances exist. One is that fewer resources are routinely accessible than expected, and the person is vulnerable to becoming overwhelmed by the complex stimulus demands that are encountered in everyday living. The result is a state of *stimulus overload*, in which the frequency and/or intensity of stimulus demands exceeds the range of responses that can be formulated or implemented effectively. The second circumstance is one in which, even though stress tolerance is usually adequate, the level of stimulus demand sharply increases, and also creates an overload situation in which the demands exceed the range of responses that can be formed or delivered effectively. In either of these circumstances, the resulting overload tends to disorganize some of the psychological operations of the person. Some people are in an almost continuous state of overload. They are beset with more experienced demands for responses than they can handle easily. The result is that many of their behaviors are insufficient or even inappropriate and, when new demands occur, their lives can become marked by some disarray, or even chaos.

RORSCHACH VARIABLES RELATED TO CONTROLS

When using the Rorschach to describe a person's capacity for control, the interpreter must exercise good judgment and not attempt to form a hypothesis or draw conclusions from single data points. Each of the major elements in the cluster—D, Adj D, EA, es, Adj es, and the CDI—do provide important information. However, the substance of an interpretive postulate drawn from any one is contingent on the findings from most, or even all of the others.

For instance, the Adjusted D Score probably is the most direct single Rorschach index of the ability to maintain control under demand or stress situations and obviously its value is quite important. However, if studied alone it offers relatively little information about the capacity for control, and might even render misleading information about stress tolerance.

Frequently, the values for the components of *EA*, *EB*, and/or *Adj es* provide important keys to fleshing out a broader understanding of the control and stress tolerance features. In other instances, findings for *Lambda* or the CDI are critical to the formation of any postulates about these characteristics.

PRESEARCH ISSUES

When the controls cluster is the first to be reviewed in the interpretive routine, it is because the first positive Key Variable (CDI is positive, $D < \text{Adj } D$, or *Adj D* has a minus value) suggests that some control problems appear to exist. When this is true, the within cluster review will address issues such as, (1) the source of the problem and the validity of the presearch postulate, (2) the chronicity of the problem, and (3) the extent to which the problem is resulting from a disorganization in previously established patterns of using resources.

These are issues that might not be raised if the cluster concerning controls were not first in the interpretive search order. When the review of the cluster does not occur first in the interpretive routine, the search proceeds with no preconceptions. It is designed to determine if there are any unusual features regarding control and/or stress tolerance.

Routinely, the values for all of the variables in the cluster are expected to fall within average limits. Both *D* scores are expected to have the same value, usually zero, except for young children. The values for *EA*, *Adj es*, and *es* are expected to be in the average range, with no unusual scores for the variables in the *eb*, and the CDI

value is expected to be less than 4. If the observed and expected values coincide, the conclusion is rather simple: that the person appears to have about as much capacity for control and tolerance for stress as do most others, and he or she seems to have a level of resource access that is also similar to most others.

On the other hand, when any of the values are different from the expected, the task of the interpreter becomes more complex as the several relationships between the variables must be reviewed carefully before any meaningful conclusions can be formed. Regardless of whether the cluster is addressed first or later in the interpretive routine, the search procedure is the same.

Data for the variables in the controls cluster from two adult protocols, shown as Cases 1 and 2, will be used to illustrate some of the inductive-deductive logic that is involved in forming interpretive hypotheses regarding controls as they are reviewed systematically. They are displayed at each step in the search unless the data are no longer relevant to the issues being addressed.

Case 1

This 30-year-old male was tested as part of an evaluation related to his work. He has been a police officer for seven years and currently holds the rank of detective. He has received three citations for meritorious service, including one for heroism, but there are also concerns about some of his job performance. Approximately four years ago, he was subject to a departmental inquiry following a complaint that he had been unduly aggressive during an arrest and caused physical injury to a suspect. He was cleared of the charge. During the past four years, he has wrecked five department cars while in pursuits, the most recent of which occurred approximately two months ago. During that incident, he crashed his car into one being driven by a suspect and, again, has been accused of excessive force during the arrest of the suspect. As a result, he has been suspended with pay, pending the outcome of the evaluation.

He is the oldest of three children. His father, age 60, is a carpenter, and his mother, age 59, is a housewife. He has two younger sisters, ages 27 and 25, who

Case 1. Control-Related Variables for a 30-Year-Old Male.

EB = 6:2.5	EA = 8.5		D = 0	CDI = 2
eb = 5:4	es = 9	Adj es = 9	AdjD = 0	L = 0.47
FM = 5 m = 0	SumC' = 1	SumT = 1	SumV = 1	SumY = 1

are both married. His younger brother, age 22, has recently graduated from college. He graduated from high school at age 18 and entered a junior college with the intent of majoring in criminal justice. After completing two years, he entered the army and worked in the military police for most of his three-year tour of duty. When he was discharged at age 23, he obtained a position with the police department for which he currently works.

He married at age 24 to a woman two years younger than himself who he had known since high school. The marriage only lasted 18 months, at the end of which time she filed for a divorce, which he did not contest. He admits that during that time he often drank heavily and that on at least two occasions he was physically abusive to his wife. He expresses regret about this and states that he has "been dry" since the divorce. He notes that he has had a sustained relationship with a woman two years older than himself for the past three years and they have been living together for the past year. He says that he is not sure about marriage but that it is a possibility. He dismisses the current charges of excessive force as being the result of "one of those lawyers that looks for anything they can." He states that while he has drawn his revolver numerous times during arrests, he has never had cause to fire it in the line of duty. Approximately two years ago, he developed an ulcer and continues to take medication related to it. During one of the auto accidents in which he was involved, he did develop a mild concussion and was hospitalized for four days. He has not received any injuries as a result of the other accidents.

The main issue being raised concerns his capacity for control. One supervisor has specifically asked whether or not he is a "loose cannon." Other issues concern whether he should be returned to duty or

reassigned to another division in the department. He is very opposed to reassignment. He believes that his department is too preoccupied with political correctness and that too many restrictions and cautions are issued frequently by his superiors. The referral also raises the question of whether there is any evidence of a psychiatric problem that requires treatment, and if so, to make specific recommendations concerning a treatment methodology.

Case 2

This 26-year-old female was tested as part of a routine pretreatment evaluation for persons entering a 30-day inpatient substance abuse program. She has been admitted to the program on the recommendation of a psychiatrist to whom she was referred after being suspended from her job as a nurse on a pediatric care unit. Her suspension occurred after being apprehended using cocaine while at work. No final decision concerning her employment will be made until evaluation and treatment are completed. She is single and completed a three-year nursing program at age 22. She has been working for the same hospital for four years and has received consistently favorable evaluations. She admits to the casual use of drugs for several years and states that her use became more frequent during the last few months. She attributes this to bouts of depression that she has experienced after a man to whom she was engaged broke up with her about four months ago.

As noted in Chapter 12, normative data for introverted and extroverted adults differ significantly for many variables, and these differences are impossible to detect if norms for the entire adult non-patient sample are used as points of reference.

Case 2. Control-Related Variables for a 26-Year-Old Female.

EB = 0:6.0	EA = 6.0		D = -1	CDI = 3
eb = 6:4	es = 11	Adj es = 9	AdjD = -1	L = 0.67
FM = 4 m = 2	SumC' = 1	SumT = 2	SumV = 0	SumY = 2

Thus, if comparisons to an "average" range are required, the normative data for introversive adults will be used for Case 1 ($EB = 6:2.5$), whereas the data for extroverted adults will be used for Case 2 ($EB = 0:6.0$).

INTERPRETIVE ROUTINE

The first step focuses on the Adjusted D Score (Adj D) and the CDI. This is because, as noted earlier, the Adj D typically provides the most direct information about one's capacity for control. However, even if the Adj D is in the expected range (0) or above, a positive CDI may pose a challenge to the validity of the Adj D.

Step 1: Adj D and CDI

This review of the values for the Adj D Score and the CDI is to obtain some preliminary information regarding control and stress tolerance.

Potential Finding 1: If the value for the Adj D is zero and the value for the CDI is less than 4, it can be assumed that ordinarily the individual's capacity for control and tolerance for stress is similar to that of most others. Proceed to Step 2.

Case 1 Finding Positive

The Adj D is zero and the value for the CDI is 3. Therefore, it is appropriate to hypothesize that this person's capacity for control is like that of most adults.

Potential Finding 2: If the Adj D value is zero but the value for the CDI is 4 or 5, it suggests that the personality organization of the person is somewhat less mature than might be expected. This tends to create a vulnerability for problems in coping with the requirements of everyday living. Such difficulties usually are manifest in the interpersonal sphere and can easily contribute to problems in control when they occur.

Potential Finding 3: If the Adj D value is in the *plus* range, it signifies that the person has a more sturdy tolerance for stress than do most, and is far less likely to experience problems in control, regardless of the value for the CDI. An Adj D score in the plus range *does not* indicate better adjustment. It simply suggests a greater capacity for volitional control of behavior. Proceed to Step 2.

Potential Finding 4: If the Adj D Score value is -1 , it can be postulated that the person is in a state of chronic stimulus overload. As a consequence, his or her control capacity and ability to deal with stress effectively is less than might be expected, regardless of the value for the CDI. Some decisions and behaviors will not be well thought through and/or implemented, and a proclivity for impulsiveness exists. Although the person is more vulnerable to control problems or more susceptible to disorganization under stress, those events are less likely to occur in structured, well-defined situations.

Unless serious psychological difficulties exist, people such as this usually function adequately in environments with which they are familiar and in which demands and expectations are routine and predictable. The risk of losing control becomes more substantial as demands and expectations increase beyond levels for which the person is accustomed. Proceed to Step 2.

Case 2 Finding Positive

The Adj D is -1 and the CDI is 3. Thus, it is reasonable to postulate that this person is in some sort of overload and her capacity for control is probably rather limited, especially in situations that are not well structured.

Potential Finding 5: If the Adj D Score is less than -1 , it can be assumed that the person is highly vulnerable to loss of control and becoming disorganized under stress, regardless of the value for the CDI. People with Adj D Scores of less than -1 usually have histories

that include numerous events marked by faulty judgment, emotional disruption, and/or behavioral ineffectiveness. They are chronically vulnerable to ideational and/or affective overload and typically function adequately for extended periods only in environments that are highly structured and routine and over which they have some sense of control.

Note: In some cases, the history will contain information about significant achievements in complex endeavors such as educational or occupational success. High levels of achievement are extremely rare among people who have Adj D Scores in the minus range, especially less than -1. Therefore, if a minus Adj D Score occurs in the record of a person with a significant achievement history, it is reasonable to assume that, *if the minus Adj D score is valid*, it reflects some ongoing disorganization. Proceed to Step 2.

Step 2: EA

The EA is reviewed to evaluate the credibility of the Adj D Score. As noted earlier, EA usually is the centerpiece variable in this cluster as it is a crude index of available resource. However, it can be misleading, either because of a high *Lambda* value or unusual EB data (both of which are reviewed in Step 3). Thus, if the Adj D Score is zero, it is expected that EA will fall at least in the average range. If the Adj D score falls in the *plus* range it is expected that EA will have a higher than average value. When this is true, it reflects

an abundance of available resource *but not* necessarily good adjustment or more effective psychological organization. How the resources are used is an altogether different matter.

Potential Finding 1: If the value for EA is in the average range, which is 7 to 11 for adults and adolescents, 6 to 10 for children ages 10 to 12, and 4 to 9 for children under age 10, an Adj D Score of 0 is expected. If the Adj D is 0, it probably reflects a reliable and valid index of capacity for control and stress tolerance. Proceed to Step 3.

Case 1 Finding Positive

The EA of 8.5 is in the expected range for adults. There does not seem to be any reason to challenge or modify the hypothesis that was developed in Step 1.

Potential Finding 2: If the value for EA is in the average range and the Adj D Score is in the *plus* range, this is unusual and signals a lower than expected value for Adj *es*. The Adj *es* provides information about internal stimulus demands and usually can be expected to be about one point lower than the *es* when an adjustment is made for situational stress factors. Typically, the Adj *es* will fall in a range of plus or minus 2.5 from the value for EA. Thus, a higher than expected Adj D Score for a person whose EA is only in the average range may be misleading and requires further evaluation during Step 4 of this review which focuses on the *es* and the Adj *es*. Proceed to Step 3.

Case 1. Control-Related Variables for a 30-Year-Old Male.

EB = 6:2.5	EA = 8.5		D = 0	CDI = 2
eb = 5:4	es = 9	Adj es = 9	AdjD = 0	L = 0.47
FM = 5 m = 0	SumC' = 1	SumT = 1	SumV = 1	SumY = 1

Case 2. Control-Related Variables for a 26-Year-Old Female.

EB = 0:6.0	EA = 6.0		D = -1	CDI = 3
eb = 6:4	es = 11	Adj es = 9	AdjD = -1	L = 0.67
FM = 4 m = 2	SumC' = 1	SumT = 2	SumV = 0	SumY = 2

Potential Finding 3: If the value for *EA* is in the average range or above and the Adj D Score is in the *minus* range, it is an unusual finding that signals an unexpectedly higher value for the Adj *es*. It is important to remember that the Adj *es* is calculated by adjusting for some situationally related stress factors. Therefore, any unexpected elevation in the Adj *es* will be evaluated during Step 4 and conclusions regarding the credibility of Adj D deferred until then. Proceed to Step 3.

Potential Finding 4: If the value for *EA* exceeds the average range, an Adj D Score in the *plus* range is expected and probably represents a reliable and valid index of capacity for control and tolerance for stress. Proceed to Step 3.

Potential Finding 5: If the value for *EA* exceeds the average range and the Adj D Score is zero, an unexpectedly elevated Adj *es* is present which may indicate that capacity for control has been greater than currently indicated. This possibility should be carefully evaluated during Step 4. Proceed to Step 3.

Potential Finding 6: If *EA* is significantly lower than average (below 6.5 for most adults) it suggests more limited available resources. An Adj D Score in the *minus* range is not unexpected. If the Adj D Score is zero or greater, it is possibly misleading as people with a low *EA*, other than young children, are chronically more vulnerable to becoming disorganized by many of the natural everyday stresses of living in a complex society. They function most effectively in environments that are well structured and reasonably free of ambiguity. Proceed to Step 3.

Case 2 Finding Positive

The *EA* value is 6 whereas the Adj *es* value is 9, which is not unexpected for adults. The hypothesis concerning limited controls, generated during Step 1, seems supported. However, the favorable academic and work history seems somewhat contradictory to that postulate, and suggests that it should be regarded very tentatively until the remaining interpretive steps have been reviewed.

Step 3: *EB* and *Lambda*

This step begins with a review of the values on each side of the *EB*. Neither is expected to be zero. A zero on either side of an *EB* in which the other side contains a substantial value casts doubt on the reliability of the *EA*. Typically, such a finding signals the presence of an unusual affective problem that may have served as a predisposition to a disorganizing stress state, or could be the product of some sort of psychological disorganization. In either event, it raises serious questions about the validity of the Adj D Score.

This step also includes a review of *Lambda*. *Lambda* represents the proportion of *Pure F* responses in a record. Usually, *Pure F* answers relate to a natural process of dealing with stimuli on a simple, economical level. They reflect the tactic of psychologically ignoring the complexity and/or ambiguity of a field, even though those features probably have been processed, and contending only with the more basic or obvious features of the field. Children do this more often than adults, but all people do it from time to time.

Whatever the age of the person, the process is one of avoidance. Thus, the issue does not center on whether it occurs, but how often it occurs. Usually, the *Lambda* value will be less than 1.0, but if it is 1.0 or higher, and especially if it is greater than 1.2 for adults or 1.3 for children over the age of seven, it represents *either* a basic *avoidant* response style *or* a form of situational defensiveness while taking the test.

There is no perfect guideline for distinguishing high *Lambda* values that are situationally related from those that represent a more trait-like avoidant response style. Generally, when a high value for *Lambda* represents a form of situational defensiveness by the subject when taking the test, the number of responses (*R*) usually is less than 17 and the *EA* will have a value of 3.5 or less. Often, the *EB* also will have a zero value on at least one side. Typically, when a high *Lambda* ($L > 0.99$) represents an *avoidant style*, the value for *EA* will be at least 4.0 or, if the *EA*

is less than 4.0, the subject will have given more than 16 responses.

When the combination of *Lambda* greater than 0.99 and *EA* less than 4.0 appears in a brief protocol depicting situational defensiveness, the interpreter must be alert to the possibility that the *EA* may not be reliable and/or valid. In turn, this raises questions about the validity of the Adj D Score. This composite of data suggests that it is probably futile to attempt to develop an accurate description about control capabilities.

Conversely, if a *Lambda* value of 1.0 or greater reflects an *avoidant* style, it signals the fact that the person has developed a marked tendency to simplify a stimulus field whenever possible by ignoring its complexity or even denying the presence of complex or ambiguous elements. This avoidant style can, in some instances, relate to the capacity for control. When it is used successfully, the process of avoiding complexity and ambiguity by ignoring or denying it represents an indirect form of control in which the possibility of being overwhelmed by it is substantially reduced. On the other hand, if the avoidant style is not successful because the field is intrinsically complex or ambiguous, there is a risk that the situation may create demands that exceed capacities for adequate control. This is because the stylistic tendency to avoid aspects of a situation conflicts with the necessity to respond to those aspects.

Potential Finding 1: If the values on both sides of the *EB* are greater than zero and result in a value for *EA* greater than 3.5, if the value for *Lambda* is less than 1.0, or in a value for *EA* greater than 6.0 if the value for *Lambda* is greater than 0.99, the resulting *EA* is probably reliable, and estimates concerning controls derived from the Adj D are likely to be valid. Proceed to Step 4.

Case 1 Finding Positive

The *EB* is 6:2.5 and the value for *Lambda* is 0.47. There does not seem to be any reason to challenge or modify the postulate formulated during Step 1.

Potential Finding 2: If the values on both sides of the *EB* are greater than zero but result in an *EA* of less than 4.0, the *EA* is probably reliable if the value for *Lambda* is less than 0.99. However, the Adj D may be misleading and should be evaluated very carefully during Steps 4 and 5 in light of data for the *es* and Adj *es*. Proceed to Step 4.

Potential Finding 3: If the values on both sides of the *EB* are greater than zero and result in an *EA* that is greater than 3.5 but less than 6.5 for an adult, or less than average for a younger person, and the *Lambda* is 1.0 or higher, the *EA* is probably reliable but the Adj D Score may be misleading. Adj D Scores that are greater than zero are *not* valid and result only because the Adj *es* is very low. If the Adj D is greater than zero, the hypothesis concerning the capacity for control should be revised after careful evaluation of the *es* during Step 5.

Potential Finding 4: If the addition of values on both sides of the *EB* result in an *EA* of less than 4.0, and the value for *Lambda* is 1.0 or greater, the resulting *EA* should not be considered as reliable, especially if fewer than 17 responses have been given. When this condition is positive it is impractical to form postulates about controls from either the D or Adj D Scores, or the *EA*. Thus, the attempt to evaluate and describe controls with reasonable accuracy should be abandoned and the interpreter should proceed to another data cluster.

Potential Finding 5: If *EB* value for *M* is zero and the value for *Sum C* is greater than 3.5,

Case 1. Control-Related Variables for a 30-Year-Old Male.

EB = 6:2.5	EA = 8.5	D = 0	CDI = 2
eb = 5:4	es = 9	AdjD = 0	L = 0.47
FM = 5 m = 0	SumC' = 1	SumT = 1	SumY = 1
	Adj es = 9	SumV = 1	

regardless of the value for *Lambda*, it is reasonable to conclude that the subject is being overwhelmed or flooded by affect. Emotional flooding usually is not a chronic or trait-like process. Instead, it is a condition that develops when a person has been unable to contend effectively with unusually powerful emotions. The intensity of these feelings is disruptive and creates a form of lability in which the emotions become provocative and overwhelming. This usually leads to behaviors that might not occur otherwise. The behaviors are a form of release, and after they occur, some sort of psychological reconstitution typically follows.

Flooding creates a major impact on thinking, especially the ability to invoke the forms of delay in ideational activity that are necessary to maintain adequate attention and concentration during decision operations. Thus, the possibilities of ideational or behavioral impulsiveness increase significantly under this condition. When this finding is positive, the Adj D Score is not a valid indicator of the typical capacities for control. Therefore, any propositions that have been developed from the Adj D Score or from the value for *EA* must be discarded and the review of the data concerning controls should be discontinued. It is reasonable to conclude that the current capacities for control are, at best fragile. Sometimes, the D Score may afford a crude indication of the current capacity for control, but it also can be misleading. It probably should not be considered to have any interpretive value unless the *Lambda* value is less than 1.0 and the *EA* value is greater than 5.0.

It is not necessary to elaborate on the issue of emotional flooding in any statement concerning controls as that issue will be addressed

more extensively when the cluster regarding affect is reviewed, or even earlier if the D Score is less than the Adj D Score.

Case 2 Finding Positive

The *EB* is 0:6.0. It is realistic to assume that the *EA* of 6.0 is lower than ordinarily is the case because of the current flooding. As such, the Adj D Score and the *EA* cannot be used as a basis from which to draw conclusions about her *typical* capacities for control and there is no reason to continue a review of control related variables beyond this point. The findings should be summarized by first noting that it is impossible to form any conclusions about her customary capacity for control because the data that usually provide that information are obscured by some currently intense emotional problems. It can be concluded that her current controls are fragile. In fact, when considered in the context of the D Score of -1 and the evidence of flooding, it seems reasonable to indicate that she is in some sort of emotional overload which makes her capacity for control very tenuous and increases the likelihood that she is currently vulnerable to impulsiveness.

Potential Finding 6: If the value for *Sum C* is zero and the value for *M* is more than 3, regardless of the value for *Lambda*, it is reasonable to assume that the subject is investing considerable energy in a massive containment or shutdown of affect. Usually this requires much more resource than the average person has available and thus the vulnerability to stimulus overload and consequent disorganization is considerable.

When this finding is positive, the Adj D Score is not a valid indicator of the typical capacities for control. Therefore, any propositions that have been developed from the Adj D

Case 2. Control-Related Variables for a 26-Year-Old Female.

EB = 0:6.0	EA = 6.0		D = -1	CDI = 3
eb = 6:4	es = 11	Adj es = 9	AdjD = -1	L = 0.67
FM = 4 m = 2	SumC' = 1	SumT = 2	SumV = 0	SumY = 2

Score or from the value for *EA* must be discarded. As an alternative, it is reasonable to hypothesize that the current capacities for control are, at best, fragile. The D Score may afford a crude indication of the current capacity for control but it can be misleading. It should not be regarded as having interpretive value unless the *Lambda* is less than 1.0 and the *EA* is greater than 5.0. The review of the data concerning controls should be discontinued. The issue of emotional constriction will be addressed when the cluster regarding affect is reviewed. It may even be addressed earlier if the D Score is less than the Adj D Score.

Step 4: Adj *es*

As noted earlier, there are instances in which Adj D Scores of zero or *plus* are not the result of an average or higher *EA*. Instead, they are produced by unexpectedly low values for Adj *es*. Similarly, Adj D Scores in the *minus* range may be produced by an unexpectedly high level of persistent demands that could indicate much more psychological complexity than is common, or might even signal the presence of a deteriorative state that is creating a picture quite different than existed previously.

Potential Finding 1: If the value for Adj *es* is in the expected range (usually between 5 and 9; slightly lower for children under age 12), and there are no significant findings to challenge the reliability of *EA*, it can be concluded that the Adj D Score is reliable and probably a valid indicator of capacities for control and tolerance for stress. Proceed to Step 5.

Case 1 Finding Positive

The Adj *es* of 9 is not unexpected for an adult. Thus, the hypothesis derived from the Adj D Score, that his capacity for control is like that of most adults, seems reasonable.

Potential Finding 2: If the value for Adj *es* is greater than expected and there are no significant findings to challenge the reliability of *EA*, it is possible that the Adj D Score could reflect a conservative estimate or even an underestimate of the capacities for control and stress tolerance of the subject. A high Adj *es* suggests the likelihood of some unusual psychological complexity. This possibility should be evaluated carefully during Step 5. Proceed to Step 5.

Potential Finding 3: If Adj *es* is lower than expected, the Adj D Score may overestimate the subject's capacities for control and stress tolerance. This is especially true if the Adj D Score is greater than zero. This possibility should be evaluated carefully during Step 5. Proceed to Step 5.

Step 5: *eb*

This step involves a review of the values for *eb* and the values for the variables contributing to Adj *es* that usually *are not* stress related (*FM*, *SumC'*, *SumT*, *SumV*). The purpose is to assess the kinds of psychological activities that are promoting frequent demands. The issue is whether unusual values for any of these variables have created an Adj *es* which may have caused a misleading value for the Adj D Score to occur.

Case 1. Control-Related Variables for a 30-Year-Old Male.

EB = 6:2.5	EA = 8.5	D = 0	CDI = 2
eb = 5:4	es = 9	Adj es = 9	AdjD = 0
FM = 5 m = 0	SumC' = 1	SumT = 1	SumV = 1
			SumY = 1

Potential Finding 1: The left side value in the *eb* is expected to be greater than the right side. If the right side value is greater, and the value for *es* is 4 or higher, it can be assumed that the person is experiencing some distress. This may have no effect on the Adj D Score. However, the astute interpreter will take note of this when forming conclusions about controls and stress tolerance.

Potential Finding 2: If *FM* is greater than 5, it is probable that the person is experiencing more seemingly random, disconnected patterns of thinking than is customary. Ideational activity such as this usually is provoked by the presence of more ungratified needs than typically should be the case. These need-related demands intrude on more deliberate patterns of thought and often interfere with concentration and attention.

Potential Finding 3: If the value for *FM* is less than 2 it suggests that need states are not being experienced in typical ways, or that they are being acted on more rapidly than is the case for most people.

Potential Finding 4: The expected value for *SumC'* is one or two. If the value for *SumC'* exceeds 2 it indicates that there is an excessive internalization of feelings that the subject would prefer to externalize. This psychological process can lead to any of several experiences of subjective discomfort, including anxiety, sadness, tension, apprehensiveness, and may also contribute to somatic disruption.

Potential Finding 5: If the value for *SumV* is greater than zero, it suggests that the person is involved in more self inspecting that focuses on negative features of the self than is common for most people. This type of introspection

frequently leads to the experience of discomfort and self-deprecation and is often a precursor to depression and self destructive thinking. In most cases, this is a persistent form of self-degradation. However, there is evidence to suggest that, at times, the presence of one or more *Vista* responses can be situationally prompted by experiences of guilt or shame. If any *Vista* responses have appeared in the protocol, it will be important for the interpreter to review the recent history carefully in an attempt to determine if they might be situationally provoked. If the history supports this possibility, the interpreter should calculate whether the absence of *Vista* would change the Adj *es* to the extent that the Adj D Score would be altered. If the Adj D Score would change, the summary of conclusions about controls should include an alternative statement.

Case 1 Finding Positive

There is one *Vista* response in his record, which possibly could relate to some rumination about his current circumstance. Regardless of whether that is true, if the Adj *es* were revised to exclude the *Vista* answer, there would be no change in the Adj D score.

Potential Finding 6: If the value for *SumT* is greater than 1, it signals the presence of experienced emotional deprivation. In *most instances*, this experience may be situationally related and should be easily identified from a close inspection of the recent history of the individual. *If* this is confirmed by the history, the value for the Adjusted D Score may be misleading. In other words, it could reflect a situationally related problem such as the recent loss of an emotionally important object. If the history supports this contention, the interpreter should calculate an Adj *es* that includes a value

Case 1. Control-Related Variables for a 30-Year-Old Male.

EB = 6:2.5	EA = 8.5		D = 0	CDI = 2
eb = 5:4	es = 9	Adj es = 9	AdjD = 0	L = 0.47
FM = 5 m = 0	SumC' = 1	SumT = 1	SumV = 1	SumY = 1

Case 2. Control-Related Variables for a 26-Year-Old Female.

EB = 0:6.0	EA = 6.0		D = -1	CDI = 3
eb = 6:4	es = 11	Adj es = 9	AdjD = -1	L = 0.67
FM = 4 m = 2	SumC' = 1	SumT = 2	SumV = 0	SumY = 2

of one for T to determine if a change in the Adj D would occur. If the Adj D does change, a summary of conclusions regarding controls should include postulates from both the original and revised Adj D Scores.

If the history does not indicate such a loss, it is more prudent to assume that the state of emotional deprivation (or loneliness) has a long standing origin and may be the product of needs for closeness that exceed the normal parameters experienced in interpersonal relationships. No recalculations for Adj es or Adj D should be made.

Case 2 Finding Positive

Even though an attempt to accurately characterize her customary capacity for control was abandoned at Step 3, it is of interest to note that she does have two texture responses in her record. This modest elevation in $SumT$ seems to coincide with the recent breakup of her engagement. In spite of the fact that the EA is not valid, an adjustment of the Adj es, by removing one T from the calculation, would yield an Adj es of 8 which, in turn, would yield an Adj D of zero. On a very speculative level, it may be that her current capacity for control is not quite as fragile as has been implied.

SUMMARIZING FINDINGS CONCERNING CONTROLS

In some cases, the findings regarding controls contribute only modestly to the total personality description and can be summarized in a sentence or two. Usually, these are instances in which the Adj D Score is zero or greater, and is not different than the D Score (see next chapter), the CDI is not positive, and there are no unusual values among the variables that contribute to the Adj es. Findings such as these suggest that brief descriptive

statements are appropriate, such as "This person has no obvious problems with issues of control or stress tolerance. (He or she) appears to have as much resource available as most adults (Step 2) and should have as much capacity for control as most adults (Step 1). The current stimulus demands that (he or she) routinely experiences are not unusual, and do not have any noticeable impact on (his or her) control capabilities (Step 5)."

Statements such as these do not necessarily mean that the overall psychological description will be positive. They simply note that there are no obvious control problems. For example, the issue of controls was raised in Case 1, the 30-year-old police officer who was evaluated following his suspension from active duty. The data from the controls cluster indicate that he has no obvious problems with control and seems to be able to handle stress as well as most adults. In other words, he usually has sufficient resources to formulate and implement decisions, and there is no reason to believe that he is vulnerable to impulsiveness. Other issues, such as his reality testing, the impact that emotions have on his decisions, his view of himself and others, and so on, will provide information about the features that influence his decisions and behaviors, but none of those are addressed when evaluating controls.

In other cases, the findings may be of more importance to the formation of the personality description and questions concerning diagnosis, disposition, or treatment planning. Case 2 is an illustration. She is the 26-year-old who is entering an inpatient substance abuse program after being suspended from her position as a pediatric nurse. The findings indicate that she is in an overload state and that her capacity for control and tolerance for stress are, at best, fragile, especially in situations that are unfamiliar and/or complex

(Step 1). There also is evidence to suggest that she is experiencing more stimulus demands than might be expected for an adult (Step 2). However, both of these findings could be somewhat misleading. This is because other data indicate that she is currently being overwhelmed by emotions (Step 3). The intensity of these feelings is quite disruptive and can interfere with thinking and provoke impulsive behaviors. Clearly, her current capacity for control is very limited, but it is impractical to speculate about what her more customary capacities for control might be if the current emotional disruption did not exist. A retest in 10 to 14 days should offer clarification regarding this issue.

RESEARCH AND POSTULATES REGARDING CONTROL-RELATED VARIABLES

The Experience Actual (*EA*)

The notion that some variables might provide indications about capacities for control and/or tolerance for stress evolved gradually during the development of the Comprehensive System. Early on, when the basic components of the System were being selected and tested, *EA* was not regarded as an easily interpreted variable and was almost discarded. However, findings by Beck, who had conceptualized *EA* (1960), provoked a closer scrutiny of the variable. Beck's notion about *EA* came in part from a suggestion of Rorschach, but crystallized mainly from data for persons who had completed psychotherapy.

Beck noted that persons completing treatment successfully usually have retest *EB*'s showing the same directionality as in their pretreatment protocols, but the numbers in the ratio tend to be considerably larger, even though the posttreatment records were not significantly longer. He postulated that by summing the two sides of the *EB*, the result would provide an index of the extent to which resources are organized in a manner that makes them accessible. Beck argued that the

increases in *M* and *WSumC* represent the development of more inner life and affective experiences, thereby constituting a broadening of available resources. Beck's findings paralleled those of Piotrowski and Schreiber (1952) who studied 13 patients before and after prolonged psychoanalytic treatment. They also report that values on both sides of the *EB* ratio increased significantly after treatment, although the directions of the ratio generally remained constant.

Another study, indirectly related to the notion of *EA*, was reported by Bash (1955). He administered Card IX to 28 subjects 200 times in succession, using a 5-second exposure and a 15-second response interval. He found that the *M:SumC* ratio for 18 of these adults gradually became nearly equal. The value for the component with the higher number at the first exposure gradually declined, whereas the value for the other component gradually increased. Although the values in this experimental *EB* gradually became almost equal for 23 of his 28 subjects, the sum of the numerical values comprising the *EB* remained relatively stable. In 22 of the 28 cases, the sum (*EA*) never changed by more than one point.

In a similar study, Erginel (1972) used data from an earlier investigation (Kemalof, 1952) in which six series of inkblots, similar to the Rorschach, had been administered to 12 persons on six consecutive days. Erginel illustrates that the *M + SumC* (*EA*) does tend to fluctuate slightly on a daily basis, even though the *EB*'s generally maintain a relatively constant direction, and suggests that this is a function of mood shifts. However, it is of interest to note that the *EA*'s fluctuated 3.0 or less in 50 (70%) of the 72 observations.

These findings, plus Beck's conceptualization of available resources, prompted a review of data from three retest studies (Exner, 1974). One data comparison involved the protocols of 30 patients and 30 nonpatients who were retested after an 18-month interval. The 30 nonpatients were all males who had not completed high school, but who were functioning satisfactorily in various types of semi-skilled employment. The mean *EA* for that group was 6.25 in the first test and 6.75 at the second

test. The patient group also consisted of school "dropouts" who were in treatment by court. They were subdivided, based on therapist reports, into "improved" and "unimproved." The mean *EA*'s for the unimproved patient group were 3.65 at pretreatment and 4.25 at the second test, whereas the group rated as improved showed a mean *EA* at pretreatment of 3.75 versus a mean of 7.25 in the second test ($p < .02$).

A second data set concerned two groups of 12 patients each, tested prior to, and at the termination of treatment. One group, designated as long-term, had averaged 131 sessions during an average period of 20.2 months. The second group, designated as supportive-directive, averaged 47.4 sessions, extending over an average period of 10.3 months. Both groups received medication as deemed appropriate, but the medication was not considered as a primary treatment method. The pretreatment mean *EA*'s were very similar for both groups, 4.51 for the long-term group, and 4.76 for the supportive-directive group. The post-treatment mean *EA*'s are different, 5.51 for the supportive-directive versus 8.26 for the long-term group ($p < .01$).

Similar findings have been reported for larger patient samples tested prior to treatment and retested two or more times during the following one to five years. Weiner and Exner (1991) studied two groups of 88 patients each. One, treated in short term therapy, averaged 62.1 sessions, and all terminated within 27 months. The second group, treated in dynamically oriented therapy, averaged 224 sessions by the end of 30 months. Twenty one persons in the short term group had values for *EA* of less than 7.0 at the onset of treatment. Only 11 of the 21 continued to show *EA*'s of less than 7.0 when retested 27 to 30 months later. Thirty of the 88 persons in the dynamic therapy group had *EA* values of less than 7.0 at the onset of treatment, whereas only seven had low *EA* values when retested after 27 to 30 months.

Exner and Sanglade (1992) studied two groups of 35 persons each in short-term and brief treatment. The short-term treatment group averaged

47 treatment sessions on a once per week basis, whereas the brief treatment group averaged only 14.2 treatment sessions. Fifteen of the 35 short-term treatment patients had *EA* values of less than 7.0 at the onset of intervention. Only eight of the 15 continued to have low *EA* values at termination. Eleven persons entering brief treatment had *EA* values less than 7.0 at the onset of treatment and nine of the 11 continued to show low *EA* values at termination. Abraham, Lepisto, Lewis, Schultz, and Finkelberg (1994) reviewed data for 50 adolescents who had not improved in outpatient treatment and were placed in residential treatment. In the baseline test, 48 (96%) of the 50 had *EA* values of less than 7.0. The mean *EA* for that group was 3.19. Two years later, the proportion continuing to have *EA* values less than 7.0 had decreased to 38 (76%), but the mean *EA* for those subjects had increased to 5.38.

As noted in Chapter 12, the temporal stability of *EA* is very substantial among nonpatient adults, regardless of whether the retest is administered after a brief interval or a much longer period. Data show *EA* retest correlations of .83 after 1 year and .85 after 3 years. Conversely, the *EA* retest correlation for a group of 30 patients retested after only six months of intensive psychotherapy is .70, and for the same group retested after 18 months is .58 (Exner, 1978). Similarly, the *EA* retest correlations for nonpatient children, although ranging from .80 upward when retested after brief intervals, are very modest and often not significant when the retest is administered after a period of nine months or longer, ranging from .19 to .45 (Exner & Weiner, 1982; Exner, Thomas, & Mason, 1985). The mean values for *EA* among nonpatient children increase each year from ages 5 through 13, but rarely more than by 0.5 in any one year. These data suggest a relationship between *EA* and some of the elements of development.

Exner, Viglione, and Gillespie (1984) have reported a consistently positive significant correlation between *EA* and *Zf*. *Zf* has a modest positive significant correlation with intelligence and also with the need for achievement. Thus, either of

these elements may be integral to *EA*. However, *EA* is not significantly correlated with intelligence when the range of IQ's used falls on a normal distribution from 80 to 120 ($r = .12$). On the other hand, if the IQ range is restricted from 110 to 140, the correlation increases ($r = .38$). The most conservative explanation for this finding is that more intelligent people are able to identify and organize resources in ways that make them more easily accessible.

Probably the best sources from which to understand *EA*, and its relation to the two D scores, concerns two variables involved in its calculation, *M* and the *WSumC*. Both are manifestations of the use of resources. They are related to deliberately initiated psychological behaviors. The data supporting this conclusion are mainly of an inferential variety, but substantial in quantity. Some have evolved from studies focusing specifically on *M* or the chromatic color responses, but much has generated from studies concerning the *EB*. Research concerning these three structural elements are described in subsequent chapters.

Experience Base and Experienced Stimulation (*eb*, *es* and Adj *es*)

Although the findings concerning *EA* seemed important enough to include it in the System, its usefulness remained elusive, mainly because of a conceptual error concerning the interpretation of two other variables, *Experience Base* (*eb*) and *Experienced Stimulation* (*es*) which, early on, was erroneously called *Experience Potential* (*ep*). The *eb* was derived from a Klopfer ratio that he believed to represent response tendencies, not yet fully accepted or available to the person (B. Klopfer, Ainsworth, Klopfer, & Holt, 1954).

Klopfer's conceptualization of the ratio was based mainly on findings from an investigation leading to the development of a Prognostic Scale (B. Klopfer, Kirkner, Wisham, & Baker, 1951) in which *FM*, *m*, and some shading variables were shown to load positively into an index predicting a favorable response to treatment. Both Klopfer and

Piotrowski (1957) had long argued that *FM* and *m* responses reflected introversive tendencies and reflected types of primitive or less available forms of ideation, whereas some shading answers represented extratensive tendencies not fully developed.

The Klopfer and Piotrowski postulates concerning a "potential" element for the *eb* variables led to the logical assumption that if the variables did represent forms of undeveloped or unavailable response tendencies, their frequencies would diminish as *EA* increased as a function of treatment or development. This erroneous assumption concerning the *eb* persisted until more data accumulated to suggest that such a conceptualization might be faulty. The first hints of this evolved from two small laboratory studies (Exner & Bryant, 1975, 1976). One involved a difficult mirror tracing task, and the second studied performance on the pursuit rotor. The results of each indicated that persons with values of *ep* that were higher than *EA* performed much more poorly than when the reverse was true.

Those studies prompted a more elaborate investigation by Wiener-Levy and Exner (1981) of 80 nonpatients who had been administered the Rorschach. They were asked to do a pursuit rotor tracking task with their nonpreferred hand, in which auditory feedback was provided when they were off-target. Half of the subjects tracked the target as it moved in a constant 60 rpm clockwise direction. The other half began their tracking the same way, but the speed of the rotor was increased 5 rpm every second minute and the direction was reversed. All participants were encouraged to strive for a 70% on-target rate, which is impossible at those high rotation speeds, and given the option to terminate their effort at any time. The findings revealed that those with higher *EA* values discontinued their effort during the third or fourth minute, soon after recognizing they had reached the asymptote of their performance, even though falling far short of the 70% on-target objective. The persons with *ep* values greater than *EA* persisted substantially longer at the task, typically until the seventh minute, even though their

performance continued to deteriorate. The findings suggested that the variable, $EA - ep$ has a relationship with the effectiveness of processing and mediational operations that, in turn, relates to the breadth and flexibility of coping strategies.

The results of these studies forced a reevaluation of the notion of potential and a closer review of available data. These included normative data that had accumulated concerning children (Exner & Weiner, 1982), the available data for the adult nonpatient sample (Exner, 1986), the third retest in a longitudinal study of children (Exner et al., 1985), and a host of data regarding first time outpatients, first admission inpatients, plus follow-up testing of patients in treatment had been collected. Several intercorrelational studies, using this data pool, failed to provide any support for the notion that FM and m relate to introversive tendencies, or that the sum of achromatic and shading responses relate to extratensive features. For instance, intercorrelations between M and FM range from .11 to .19, and between .10 and .20 for M and $FM + m$. Similarly, the intercorrelations between Sum of Achromatic and Shading (SH) and $WSumC$ range from .22 to .24, between SH and FC range from -.14 to -.19, and between SH and $CF + C$ from .23 to .37 (Exner, 1983; Exner, Viglione, et al., 1984).

An examination of the data for nonpatient children revealed that although EA does increase gradually during developmental years, the values for FM , m , and SH change only slightly. The findings comparing pre- and posttreatment records revealed an increase in EA for patients judged as improved, and some decrease in the ep which usually was accounted for by lower values for m and $SumY$, or some of the other shading variables that had unexpectedly high values in the pretreatment test.

The composite of these data made it obvious that the use of the term potential had been erroneous, and supported the notion that ep represents an index of psychological activity *not* accessible to organization or control. As a result, the ep was relabeled Experienced Stimulation (es), discarding the Klopfer-Piotrowski assumption that the

eb variables reflected some psychological potential (Exner, 1986). However, it did seem clear that much of what had been postulated about ep , namely, that it represents some form of impingement or demand was indeed true. This is supported by various investigations concerning the variables included in the eb .

Animal Movement Responses (FM)

Both FM and m seem related to the presence of mental activity, provoked by need or demand states, which is not in the direct focus of attention. Instead, it is a more peripheral process that tends to act as an ideational signal system that often prompts a person to alter their focus of attention. This is a naturally useful alerting activity, but if it becomes inordinately diverse or excessive, it can become a disruptive force that creates difficulties in attention and concentration, and interrupt or divert efforts at reasoning. This is probably what happens in cases of insomnia, or in people who complain about "racing thoughts," or "having too many things on my mind." In these instances, the peripheral ideation tends to interfere with concentration, and the person has difficulty keeping the focus of attention on a specific objective or "train" of thought.

Although FM and m relate to the same sort of mental process, the origins of the activity to which they relate are very different. The m variable is unstable, apparently related to situational stress. The FM variable is reasonably stable over time. The retest data for FM are somewhat intriguing in that they show correlations ranging from the lower to upper .70's, regardless of whether the retest is done after a brief or lengthy interval. Most other Rorschach variables that have retest correlations in the .70's for lengthy intervals will have retest correlations in the .80's, or even into the .90's over brief periods of time. The relative consistency of the retest correlations for FM suggests that, although it is reasonably stable, situational variables may also influence the process to which it relates.

FM has been researched less than many other Rorschach variables, possibly because it did not appear in all of the systems. Nonetheless, the data that have accumulated offer several consistent findings from which some judgments concerning the process can be made. *FM* has been shown to increase under diminished states of consciousness, such as those produced by alcohol (Piotrowski & Abrahamsen, 1952) and sodium amytal (Warshaw, Leiser, Izner, & Sterne, 1954). Exner, Zalis, and Schumacher (1976) studied the records of 15 frequent amphetamine users, on the first day of admission to a drug treatment program. They noted a substantially high frequency of *FM* ($M = 6.94$) than in a group of 15 chronic marijuana users being admitted to the same program ($M = 4.11$). Actually, the amphetamine users showed many of the features of acute schizophrenia, whereas the marijuana users did not. The protocols of 10 heroin addicted, streetwalker prostitutes, culled from a larger study concerning prostitution (Exner, Wylie, Leura, & Parrill, 1977) were matched, on the basis of age, marital status, intelligence, birth order, and educational level, with 10 controls who were not prostitutes. There were many features in the protocols that differentiated one group from the other, including the fact that the 10 addicted prostitutes gave almost twice as many *FM* answers as did the controls.

Much of the data concerning *FM* suggest that the ideational activity related to this variable is provoked by unmet need states. In theory, these are the unprovoked thoughts that occur most often when a person is not deliberately focusing attention on a coping issue. Exner, Cooper, and Walker (1975) studied the Rorschach changes of nine very overweight males during a 10-day medically supervised dietary program. Each of the patients began the program with at least 50 pounds of excess weight, and the first segment of an extended weight control regimen required 12 days of hospitalization, during which only the intake of fluid was permitted. Rorschachs were administered the day before hospitalization, and again on the 10th day of hospitalization. The average weight loss during this period was 18.4

pounds and, at least psychologically, all nine men were "very hungry" on the 10th hospital day. The average number of *FM* answers given in the pretest protocols was 3.77 (range of two to six), which is within the expected range. In the second test, the variation was more extensive. Two men produced fewer *FM* answers, one moving from three to zero, and a second from four to one. Another man gave three *FM*'s in the first record and four in the second. The other six men increased substantially for *FM* in the second test, the smallest increase being from two to four, the largest increase being from three *FM*'s in the first test to eight in the second.

A second study in this series involved the testing of 15 juvenile offenders (Exner, Bryant, & Miller, 1975) at the time of entry to a juvenile detention center and again at the 60th day of detention. All 15 had histories of antisocial behavior and had been sentenced to an "indeterminant period" of detention for offenses ranging from auto theft to assault. At the 60-day interval, none of these individuals knew the probable date of release. The average for *FM* responses in the first test was 4.27 ($SD = 1.3$), whereas in the second test, the mean *FM* increased to 6.89 ($SD = 1.9$, $t = 4.68$, $p < .02$).

Ridgeway and Exner (1980) administered the Rorschach and the McClelland Need Achievement Scale (McClelland, Atkinson, Clark, & Lowell, 1953) to 16 first year medical school students twice. Rank Order Correlations were calculated for several Rorschach variables and *NAch*. None were significant for the first test, but a $\rho = .41$ ($p < .01$) was noted between *FM* and *NAch* in the second test, administered 2 or 3 days before their first major anatomy examination, a situation that logically should give rise to the achievement need. Exner (1979) paid 15 male volunteers to participate in a physical restraint study. Each was tested one week prior to the laboratory restraint to establish baseline data. Volunteers were paid in relation to the amount of time they elected to remain in restraint. The subjects were restrained in a large wooden chair using 32 leather straps, so that when all were secured the

subject could do little more than move fingertips, toes, and eyes. They were able to terminate the restraint by signaling the experimenter, using a button attached to one arm of the chair that caused a bell to ring. However, prior to being released, the person was administered a second Rorschach, with the examiner holding the cards. The mean *R* for the baseline test was 23.3, and the mean for *FM* was 3.26 ($SD = 1.64$). The mean *R* in the retest was 18.6, whereas the mean *FM* was 5.42 ($SD = 2.02$), $p < .02$. This collection of findings suggest that *FM* is related to a process that is not deliberately initiated, and less well-controlled or directed.

Haan (1964) reported that when *FM* exceeds *M*, there is a high correlation with several measures of defensiveness, including intellectualization, rationalization, regression, and substitution. She suggests that *FM* may reflect either an overt expression of impulse, or an internalization of behavior, oriented toward containment of the impulse. However, this defensiveness is apparently not very effective if relapse is used as a criterion. Exner, Murillo, and Cannavo (1973) followed 105 non-schizophrenic patients for one year following discharge from hospitalization. Twenty-four were rehospitalized during the first 12 months and 17 had more *FM* than *M* in their discharge records, as contrasted with only 9 of 81 nonrelapsers. Exner (1978) has also noted that withdrawn children tend to have more *M* than *FM*. Ihanus, Keinonen, and Vanhamaki (1992) found that 19 physically handicapped persons, ages 11 to 25, gave substantially more *FM* answers than did matched controls.

Some studies suggest that elevations in *FM* are related to behavioral dysfunction. Piotrowski and Abrahamsen (1952) report that persons who give more *FM*'s than *M*'s tend to be much more aggressive under states of diminished consciousness, such as under the influence of alcohol or drugs. Thompson (1948) found that *FM* is significantly correlated with MMPI measures of irresponsibility, aggressiveness, and distractability. Sommer and Sommer (1958) reported a significant correlation between *FM* and assaultive behavior, and Altus (1958) reported that students scoring high

on the MMPI Schizophrenia Scale give significantly more *FM* than do students scoring low on that scale. Berryman (1961) has suggested that *FM* is related to the level of productivity in creative artists. Piotrowski and Schreiber (1952) found that the quality of *FM*'s tend to change during treatment, generally becoming more assertive and less passive. They note that these changes correspond to behavioral changes in which successfully treated subjects demonstrate more "vitality and liveliness" in their actions. Exner (1978) has noted that a group of 480 adolescents, classified as behavior or conduct disorders, give slightly more *FM* ($M = 6.02$) as contrasted with nonpatient adolescents ($M = 4.33$).

The means for *FM* are relatively consistent across age groups in the nonpatient data, tending to hover between 3.5 and 5.0 through age 16, and is 3.74 in the adult sample of 600. The expected range is between three and five. All of the other variables in the *eb* are expected to have values of zero or one. It is for this reason that the value on the left side of the *eb* is always expected to be higher than the value on the right side, as noted in the Step 5 of the principles for interpretation of controls data. A higher left side *eb* occurs for at least 85% of nonpatients, both children and adults. A high left side *eb* is also common among patient groups, although the proportions of persons with a higher left side value tend to be less than for nonpatients. For instance, it occurs in between 70% and 75% of samples of character disorders, 60% to 70% of samples of outpatients, and 50% to 60% of samples of schizophrenics. On the other hand, the proportions of persons with a higher left side *eb* range only from 30% to 40% for most samples of seriously depressed persons. This is not surprising, because each of the four variables included in the right side value of the *eb* is related to irritating affective experiences.

The Texture, Vista, and Achromatic Variables

Although the symbol *SH* has often been used to represent a composite value of the four variables,

SumT, *SumV*, *SumC'*, and *SumY*, it can be somewhat misleading because it implies that each of the four share many common features. It is true that all four relate to impinging or irritating affect but, beyond that common element, they are quite different from each other. One, *SumY*, is highly unstable, and relates to situational experience. That is why it is essentially excluded when calculating the *Adj es*. Two others, *SumT* and *SumV*, are very stable for their presence or absence, with retest correlations ranging from the mid .80's to mid .90's. The fourth, *SumC'*, has retest correlations ranging from the mid .60's to the mid .70's, but rarely higher, or lower. Like *FM* it seems to have some trait like stability, but is also influenced by state conditions.

The composite of the four comprise the right-side value of the *eb*, and sometimes provides a crude index of subjectively felt distress when the value is inordinately higher than the expected range of two to four, or if it exceeds the left-side *eb* value.

The Texture Variable (*SumT*)

Texture answers appear most consistently among the records of nonpatients. Between 75% and 80% of the records in nonpatient samples give at least one texture response, and most give *only* one. Patients give texture answers less frequently than do nonpatients and the absence of *T*, as well as elevations in *T*, are interpretively important. B. Klopfer (1938) was the first to recognize the importance of a separate coding for texture answers, and later B. Klopfer et al. (1954) suggested that it is related to needs for affection and dependency. McFate and Orr (1949) have noted that *TF* and pure *T* answers occur more frequently among young adolescents than in older adolescents or adults. Kallstedt (1952) suggested that this is because young adolescents are more socially and sexually insecure. Montalto (1952) found that six- and seven-year-old children whose mothers were restrictive give significantly more texture answers than do those of the same ages who have mothers who are more

democratic. Breecher (1956) found more texture responses among patients who had been maternally overprotected as contrasted with those who had been maternally rejected. She suggested that maternal rejection causes a reduction in the "need to be liked."

Hertz (1948) reported that texture responses reflect a cautious sensitivity, related to a willingness to be more open with the environment. Brown et al. (1950) found that psychosomatic patients give significantly fewer texture answers than do patients being treated for other complaints. Steiner (1947) reported that unsuccessful workers give significantly more texture answers than do successful workers. Allerhand (1954) noted that texture responses correlate with an index of anxiety in an experimental induced conflict situation. Waller (1960) was unable to find a relation between texture and scores on the Welsh or Taylor anxiety scales, but did find texture related to an overall "impression" of anxiety. Potanin (1959) found that individuals who "acknowledge" dependency features prefer geometric designs with textural details significantly more than do people who describe themselves as independent. Coan, (1956) studied Rorschach variables factorially, and concluded that the blends containing *M* and texture relate to inner sensitivity or empathy.

Exner (1978) demonstrated that when patients do articulate texture, they tend to give more texture answers than do nonpatients. This is probably because people who become patients are often troubled by long-standing feelings of emotional deprivation, or have experienced recent emotional losses, either of which will give rise to elevations in the frequency of texture answers. For instance, Exner and Bryant (1974) found that 30 recently separated or divorced individuals averaged 3.57 texture responses ($SD = 1.21$) and none had *T*-less protocols, whereas persons in a demographically matched control group averaged 1.31 texture answers ($SD = 0.96$) and 4 of those 30 records contained no texture answers. Twenty-one of the 30 separated or divorced persons were retested after six months, at which time 14

reported having reconstituted or replaced their lost relationship. They had averaged 3.49 texture answers in the first test, as compared with 2.64 in the second test. Similarly, Exner and Leura (1975) found an average of 2.87 texture answers ($SD = 1.12$) in a group of 23 children, ages 8 to 12, who had been placed in foster homes for the first time within the preceding 60 days because of the loss of one or both parents.

Exner, Levantrosser, and Mason (1980) found that 36 of 50 first admission depressed patients who had at least one texture response also reported having a transitional object as a young child, such as a teddy bear, favorite blanket, and so on. Conversely, only 10 of 50 first admission depressed patients who gave no texture answers reported having a transitional object. Those findings are similar to those concerning transitional objects reported by adult nonpatients (Exner & Chu, 1981). Persons who have T-less protocols appear to have several psychological characteristics that are quite different from those who deliver texture answers. The first hint of this was noted by Leura and Exner (1976), who tested 32 foster-home children, age 7 to 11, who had no placement lasting longer than 14 months, and a control group of 32 children of about the same intellectual level who had lived with their biological parents since birth. The mean *SumT* for the foster-home group was 0.457 ($SD = 0.26$), and 20 of the 32 records contained no texture answers. The mean *SumT* for the 32 controls was 1.47 ($SD = 0.52$), and only three of those protocols had no texture responses.

A retest after four months of 16 of the 20 foster home children who gave no texture in their first test showed that 15 of the 16 remained void of texture answers. This marked difference cannot be attributed to a "failure of articulation" element. In the first test, 16 of the 20 foster home children gave at least one grey-black or shading answer (mean = 1.4). Most involved C' or Y variables. In the retest, the 15 T-less children average 1.7 gray-black or shading answers, with at least one in every record. These data appear to support the premise that, for some individuals, the affective

experience of emotional or dependency needs may become "neutralized," and if this occurs, it takes on a durable characteristic. Pierce (1978) reported a similar finding in the protocols of 52 children who had experienced an absent parent prior to age eight. In that sample, texture answers appeared in only seven protocols.

Exner (1978) arranged for 33 therapists, unaware of any Rorschach findings, to rate more than 150 patients for various characteristics after the first six to eight treatment sessions. A significantly greater proportion of patients who had no texture in their pretreatment records were rated as being less well motivated for treatment than patients who gave at least one texture answer in their pretreatment records. Exner, Martin, and Thomas (1983) found that T-less persons tend to select seats in a waiting room that are more distant from a collaborator who was seated diagonally from the entry door than did subjects who gave T in their records. Persons who had more than one texture answer in their protocols tended to sit close to the collaborator, and frequently initiated a conversation, whereas persons who gave no texture in their records rarely spoke during the 10-minute waiting period.

Marsh and Viglione (1992) administered six of the 10 Rorschach cards to 81 adult females and requested two answers per card. Subsequently, all subjects participated in a series of 10 sorting tasks involving 54 three-dimensional blocks. The blocks varied for size (large and small), were of three colors, three shapes, and three textures (rough, smooth, or soft). Touching activity was rated from videotapes recorded during the sorting. Persons who gave texture answers during the modified Rorschach procedure were significantly more likely to sort by tactile features than those who gave no texture answers. Casella (1999) divided 79 adults into three attachment styles, secure, preoccupied, and avoidant. He found that persons with a secure style tended to give one texture answer, whereas those classified as preoccupied frequently gave more than one texture response. Those with avoidant attachment

styles were more likely to have no texture in their protocols.

Gacono and Meloy (1991) differentiated 42 male offenders, who met the criteria for antisocial personality disorder, into two categories related to psychopathy, moderate, and severe. They note that persons in the moderate category produced significantly more texture answers than those designated as severe. Weber, Meloy, and Gacono (1992) report a significantly lower frequency of texture answers among inpatient conduct disorder adolescents as compared with inpatient dysthymic adolescents. Loving and Russell (2000) differentiated 66 male juvenile offenders into three categories, high, moderate, and low, for degrees of psychopathy. They found that about 75% of persons in the moderate and low categories gave at least one texture answer while less than 20% of those in the high category did so. Blais, Hilsenroth, and Fowler (1996) have found that texture responses are significantly and meaningfully correlated with the *DSM-IV* diagnosis of histrionic personality disorder.

The composite of findings concerning *SumT* are rather compelling. They suggest that persons who give more than one texture answer have relatively strong needs for closeness. They apparently experience loneliness and/or their needs to be emotionally close to others have, somehow, been exacerbated. On the other hand, people who give no texture answers appear to be more guarded and/or distant in interpersonal contacts. They also appear to be more concerned with issues of personal space than are most people. Interestingly, persons who have no texture answers in their pretreatment protocols usually give at least one texture response in records that are taken after 9 to 15 months of treatment, regardless of the type of intervention (Exner, 1978; Weiner & Exner, 1991; Exner & Sanglade, 1992).

The Vista Variable (*SumV*)

Vista responses were first noted by Rorschach in a passing reference to answers containing dimensional

features (Rorschach & Oberholzer, 1923). B. Klopfer and Kelley (1942) and Beck (1944) both created separate codings to account for the dimensional answers based on the shading features of the blots. Both suggested that they are related to a form of introspection. Klopfer posited that they represent efforts at taking distance to handle anxiety, whereas Beck perceived them as related to a more morose feeling tone created by depression and/or feelings of inferiority. Vista responses are the least frequently given type of shading response, occurring in only 21% of the adult nonpatient sample records ($M = 0.28$). It is extremely rare among young nonpatient children, appearing in only 2 of 905 records of nonpatient youngsters between the ages of 5 and 11. The frequency of *SumV* is greater among nonpatient adolescents. It appears significantly more often among 12-year-olds, and occurs with about the same proportional frequency among youngsters ages 12 to 16 as for nonpatient adults. Vista answers appear more often in the records of seriously depressed subjects. About 55% of the records from a sample of 279 depressed inpatients contain at least one vista answer.

W. Klopfer (1946) and Light and Amick (1956) found very low frequencies of vista responses among the elderly. Meltzer (1944) has shown that vista answers occur with a significantly greater frequency among stutterers than nonstutterers. Bradway, Lion, and Corrigan (1946) reported that vista responses are related to "treatability" in delinquent adolescent females. Buhler and LeFever (1947) found that alcoholics give significantly more vista answers than do psychopathic personalities. They interpret this to indicate that alcoholics are more self-critical. Rabinovitch (1954) has shown that vista answers are significantly correlated with the greater GSR deflections and perceptual thresholds, and interprets this as reflecting an attempt to avoid unpleasant stimuli. Fiske and Baughman (1953) have noted that the incidence of vista answers tends to increase among outpatients with the length of the record.

Exner (1974) found that vista answers occur more frequently among subjects who make suicidal

gestures within 60 days after being tested. Exner and Wylie (1977) found that an elevation in vista responses is significantly correlated with effected suicides that occur within 60 days after being tested, and included that finding as one variable in the Suicide Constellation. Exner, Martin, and Mason (1984) have cross-validated the efficacy of the Suicide Constellation using a sample of 101 subjects who effected their own death within 60 days of being tested. They found that the presence of vista remains as a highly important variable in the Constellation. Exner (1978, 1991) reported that vista answers tend to increase in records of patients who have been in uncovering forms of psychotherapy for at least six months as contrasted with pretreatment records. Exner (1974) also noted that patients in group psychotherapy who have vista answers in their pretreatment records tend to give more self-focusing statements during the group sessions. Epstein (1998) found that traumatic brain injured patients tend to give more vista answers than do nonpatients.

The retest correlations for *SumV* are substantial, ranging from the low to mid .80's over long intervals, and from the high .80's to low .90's for brief intervals. Their magnitude tends to represent the persistent *absence* of vista answers. In that context, the presence of vista answers is typically regarded as representing a more chronic trait-like feature. However, Exner (1993) reported on two retrospective studies suggesting that some vista answers may have a situational relationship. The first compared two sets of 34 protocols each. The "target" set of records were from persons who had been arrested for the bodily assault of a close friend or relative, or who were charged with manslaughter or negligent homicide because of an auto accident in which a close friend or relative was killed. The control set of records were from 34 persons who had done harm to individuals they did not know, and had been variously charged with aggravated assault, assault with intent to kill, manslaughter, and so on. Slightly more than half (18) of the records in the target group contained at least one vista answer as

compared to only 2 of the 34 records in the control sample.

The second study involved a review of the protocols of 18 women who had recently suffered miscarriages during their second trimester of pregnancy. They were compared with the records of 18 women briefly hospitalized for the evaluation or treatment of internal complaints. Eight of the 18 records given by the women who had miscarried contained at least one vista response as contrasted with only one protocol from the comparison group. Interestingly, most of the records containing vista answers in both "target" groups had Egocentricity Index values in the expected range, which is somewhat unusual for persons who have chronic tendencies to self-degradation. Thus, it may be that the vista responses, in these instances, represent a more situational sense of guilt or remorse related to recent actions or events.

Much of the data concerning vista answers appear to support the Klopfer-Beck positions that it signals an introspective process. However, it is doubtful that the relation is direct. Instead, vista answers seem related to a negative emotional experience generated by the self-focusing or self-examining behavior. Obviously, the very low frequency by which the vista answer appears makes its presence in any record interpretively important. Its absence is generally a more favorable sign than its presence. When vista is present, it signals the presence of discomfort, and possibly even pain, that is being produced by a kind of ruminative introspection which is focusing on *perceived* negative features of the self.

Although the presence of one or more vista responses might be considered positively in the context of prognosis for early treatment motivation, the self-defacing aspects of the process that give rise to the negative feelings can be a marked obstacle to early treatment gains. Probably the only time that the presence of vista answers can be viewed positively, is when the person has been in some form of uncovering or developmental intervention for several months. In that circumstance, the intervention is designed to promote

self-inspection, much of which will focus on negative features and can be expected to generate the experiences of pain and/or irritation. However, *vista* answers are not expected to appear in the records of patients who are nearing termination. Although self-inspection will undoubtedly continue after treatment, irritation and/or pain should not be a routine product of the process. Usually, this sort of introspection is indicated in the Rorschach by another Rorschach variable, *FD*, that also relates to taking distance and self-inspecting, but in a way that does not provoke painful affective experiences.

The Achromatic Color Variable (*SumC'*)

B. Klopfer (1938) was the first to provide a specific coding for responses in which the white, gray, or black features of the blots are used as color. He postulated that these answers correlate with a tendency to tone down affect, but cautioned that the specific process involved would be defined by the presence or absence of other test features. For instance, he hypothesized that achromatic answers involving white space as color might relate to a euphoric characteristic if the record is also marked by a substantial number of chromatic color responses. Later, Klopfer hypothesized that achromatic answers involving gray and black might be related to depressive features (B. Klopfer & Spiegelman, 1956). Rapaport, Gill, and Schafer (1946) suggested that the process related to achromatic responses might be a more conscious defense against direct affective expression. Piotrowski (1957) also postulated that achromatic responses are related to depressive feelings, but emphasized that a euphoric element is likely to be present if the responses involve white or light-gray areas of the blots, citing the findings of Weber (1937) that alcoholics give significantly more achromatic answers involving the white and light-gray areas.

Exner (1974) found that achromatic color responses are given about twice as frequently by psychosomatics, obsessives, and schizoids than by

nonpatients, and about three times more frequently than given by patients diagnosed as passive-aggressive or psychopathic. He also reviewed the pretreatment protocols of 64 first admission affective disorders who had been placed on a "suicide watch" at the time of admission. Sixteen of the 64 made suicide gestures within 55 days of admission, and only 5 of those 16 records (31%) contained *SumC'* responses as contrasted with 34 of the 48 (71%) of the patients who did not make such a gesture. These findings tend to support the postulate that a relationship does exist between affective constraint and *SumC'*.

Exner and Leura (1977) found that the records of 20 adolescents, being evaluated for disposition recommendations related to "acting out" offenses, contained significantly more *SumC'* answers ($M = 2.77$, $SD = 1.03$) than did the records of 20 nonpatient adolescents ($M = 1.12$, $SD = 0.79$) used as controls, $p < .01$. Both groups were retested after 8 weeks, at which time all disposition decisions concerning the acting out youngsters had been made and implemented. The control group gave about as many achromatic color answers in the retest as they had in the first test ($M = 1.07$, $S = 0.87$), whereas the acting out group gave significantly fewer *SumC'* responses than they had in the first test ($M = 1.11$, $SD = 0.94$). These data tend to support Rapaport's suggestion that the process related to *SumC'* may be defensive. The findings also coincide with retest correlational data mentioned earlier, indicating that, although *SumC'* is relatively stable, it is apparently subject to fluctuation under some state influences.

It is not uncommon to find three or more achromatic color responses in the protocols of markedly depressed persons. Exner (1978) has noted that inpatient depressives, retested at discharge when the clinical manifestations of depression have abated, usually have values for *SumC'* that are less than half the value in their pretreatment records, even though the retest records tend to be significantly longer. An elevation in value for *SumC'* has been found to be useful in the identification of some serious affective disturbances (Exner, 1983, 1991).

Assuming that achromatic color answers do relate to a form of affective constraint, it is important for the interpreter to evaluate the use of form in those responses. When form is dominant, as in the *FC'* response, the operations involved in the constraint are probably more cognitively controlled than when the reverse is true. The process of constraint should not be confused with anxiety, although anxiety may sometimes accompany the experience. Rather, it is like a psychological "biting of one's tongue," whereby the emotion is internalized and consequently creates some irritation. It is the irritation that is represented by the *C'* variables which, experientially, can probably take any of several forms, ranging from a vague uneasiness or discomfort to a much more marked experience of tension.

The D Scores (D, Adj D)

The accumulated data regarding *EA* and the variables comprising the *eb*, supported the notion that a formula concerning the relationship between the two could offer information about control capacity and stress tolerance. A difference score seemed logical, formulating it in the framework of concepts such as stimulus demand and stimulus overload, both of which have been commonly used in experimental psychopathology. They have their origins in a large number of works concerning frustration, stress, stress tolerance, and emotion. Some of the most direct explications of these concepts can be found in older, but still valuable literature, such as French (1947), Gantt (1947), Liddell (1944), Mair (1949), Maslow (1947), Miller (1944), and Selye (1956). They remain implicit in newer literature concerning stress and/or emotion (Seligman, Abramson, Semmel, & von Baeyer, 1979; Lazarus, 1983; Lazarus & Folkman, 1984; Lazarus, 1991).

Two interrelated factors argue against a simple *EA - es* difference score. One concerns the psychometric integrity of a raw score difference, and the second concerns the instability of some *eb* variables. Thus, a method was selected in which

standard deviations are used to establish D Score ranges. The value for *EA* is within 2.5 points of the value for *es* in the records of 65% of the 600 nonpatient adults. Therefore, a range of + or -2.5 is the range selected to represent a D Score of zero and subsequent intervals of + or -2.5 are used to identify D Score values greater than or less than 0. However, the formula *EA - es* includes two unstable variables from the *eb* that are related to situational stress (*m* and *SumY*). Consequently, it was decided to make adjustments for those variables (Adj *es*) and create a second difference score (Adj D). Actually, when the *es* is adjusted for *m* and *SumY*, in the nonpatient sample of 600 persons, 87% have Adj D Scores of 0 or greater.

The Adj D is, in some ways, the more important of the two difference scores, as it relates to control features that are more typical of the person. Although negative Adj D Scores are unwanted, they do not automatically signal adjustment problems. Nearly 5% of the adult nonpatient sample have Adj D values that are less than zero. On the other hand, it is not uncommon to find negative Adj D values among patients. Sometimes, this will occur because *EA* is lower than expected, but often it occurs because the values for the Adj *es* are much higher than *EA*. Weiner and Exner (1991) have reported that Adj *es* tends to become lower as both long-term and short-term treatment progresses. Similarly, Exner and Sanglade (1992) noted that values for *es* and Adj *es* tend to become lower for almost all persons in both brief and short-term treatment and, consequently, an increase in both the D and Adj D Scores tends to occur.

Although Adj D values greater than zero are often regarded positively, indications of unusually sturdy capacities for control or tolerance for stress can actually be a hindrance in some treatment situations. For instance, Beck (1960) noted that *EA* tends to be highest among schizophrenics in which manifest symptoms are clinically most obvious, yet they are often most difficult to treat. Most of those patients manifest paranoid features. He suggested that, "the greater the supply of inner

energy, the more it is converted into pathologic symptoms, given a personality that is taking recourse to a symptomatic solution" (p. 20). Data concerning some outpatients also coincide with this postulate. Patients who respond most rapidly to treatment typically are those who are in distress. Patients with D Scores greater than zero tend to react more casually to stress and are slower to develop the patient-therapist alliance that seems so necessary for progress. This has been one of the findings that led to the conclusion that the D Scores have a relation to stress tolerance.

REFERENCE

- Abraham, P. P., Lepisto, B. L., Lewis, M. G., Schultz, L., & Finkelberg, S. (1994). An outcome study: Changes in Rorschach variables of adolescents in residential treatment. *Journal of Personality Assessment*, 62, 505-514.
- Allerhand, M. E. (1954). Chiaroscuro determinants of the Rorschach test as an indicator of manifest anxiety. *Journal of Projective Techniques*, 18, 407-413.
- Altus, W. D. (1958). Group Rorschach and Q-L discrepancies on the ACE. *Psychological Reports*, 4, 469.
- Bash, K. W. (1955). Einstellungstypus and Erlebnistypus, C. G. Jung and Herman Rorschach. *Journal of Projective Techniques*, 19, 236-242.
- Beck, S. J. (1944). *Rorschach's test. I: Basic processes*. New York: Grune & Stratton.
- Beck, S. J. (1960). *The Rorschach experiment: Ventures in blind diagnosis*. New York: Grune & Stratton.
- Berryman, B. (1961). Poet's responses to the Rorschach. *Journal of General Psychology*, 64, 349-358.
- Blias, M. A., Hilsenroth, M. J., & Fowler, J. C. (1998). Rorschach correlates of the DSM-IV histrionic personality disorder. *Journal of Personality Assessment*, 70, 355-364.
- Bradway, K., Lion, E., & Corrigan, H. (1946). The use of the Rorschach in a psychiatric study of promiscuous girls. *Rorschach Research Exchange*, 9, 105-110.
- Breecher, S. (1956). The Rorschach reaction patterns of maternally overprotected and rejected schizophrenics. *Journal of Nervous and Mental Disorders*, 123, 41-52.
- Brown, M., Bresnolan, T. J., Chakie, F. R., Peters, B., Poser, E. G., & Tougas, R. V. (1950). Personality factors in duodenal ulcer: A Rorschach study. *Psychosomatic Medicine*, 12, 1-5.
- Buhler, C., & LeFever, D. (1947). A Rorschach study on the psychological characteristics of alcoholics. *Quarterly Journal of Studies on Alcoholism*, 8, 197-260.
- Casella, M. J. (1999). The Rorschach texture response: A conceptual validation study. *Dissertation Abstracts International*, 60, 2405.
- Coan, R. (1956). A factor analysis of Rorschach determinants. *Journal of Projective Techniques*, 20, 280-287.
- Epstein, M. (1998). Traumatic brain injury and self perception as measured by the Rorschach using Exner's comprehensive system. *Dissertation Abstracts International*, 59, 0870.
- Erginel, A. (1972). On the test-retest reliability of the Rorschach. *Journal of Personality Assessment*, 36, 203-212.
- Exner, J. E. (1974). *The Rorschach: A Comprehensive System. Volume 1*. New York: Wiley.
- Exner, J. E. (1978). *The Rorschach: A Comprehensive System. Volume 2. Current research and advanced interpretation*. New York: Wiley.
- Exner, J. E. (1979). *The effects of voluntary restraint on Rorschach retests*. Rorschach Workshops (Study No. 258, unpublished).
- Exner, J. E. (1983). Rorschach assessment. In I. B. Weiner (Ed.), *Clinical methods in psychology* (2nd ed.). New York: Wiley.
- Exner, J. E. (1986). *The Rorschach: A Comprehensive System. Volume 1: Basic foundations* (2nd ed.). New York: Wiley.
- Exner, J. E. (1991). *The Rorschach: A Comprehensive System. Volume 2: Interpretation* (2nd ed.). New York: Wiley.
- Exner, J. E. (1993). Vista and guilt or remorse. *Alumni Newsletter* (pp. 3-7). Asheville, NC: Rorschach Workshops.
- Exner, J. E., & Bryant, E. L. (1974). *Rorschach responses of subjects recently divorced or separated*. Rorschach Workshops (Study No. 206, unpublished).
- Exner, J. E., & Bryant, E. L. (1975). *The EA and ep variables as related to performance on a mirror tracing task*. Rorschach Workshops (Study No. 209, unpublished).
- Exner, J. E., & Bryant, E. L. (1976). *The EA and ep variables as related to performance on an accelerated pursuit rotor task*. Rorschach Workshops (Study 219, unpublished).

- Exner, J. E., Bryant, E. L., & Miller, A. S. (1975). *Rorschach responses of some juvenile offenders*. Rorschach Workshops (Study No. 214, unpublished).
- Exner, J. E., & Chu, A. Y. (1981). *Reports of transitional objects among nonpatient adults as related to the presence or absence of T in the Rorschach*. Rorschach Workshops (Study No. 277, unpublished).
- Exner, J. E., Cooper, W. H., & Walker, E. J. (1975). *Retest of overweight males on a strict dietary regimen*. Rorschach Workshops (Study No. 210, unpublished).
- Exner, J. E., & Leura, A. V. (1975). *Rorschach responses of recently foster placed children*. Rorschach Workshops (Study No. 196, unpublished).
- Exner, J. E., & Leura, A. V. (1977). *Rorschach performances of volunteer and nonvolunteer adolescents*. Rorschach Workshops (Study No. 238, unpublished).
- Exner, J. E., Levantrosser, C., & Mason, B. (1980). *Reports of transitional objects among first admission depressives as related to the presence or absence of T in the Rorschach*. Rorschach Workshops (Study No. 266, unpublished).
- Exner, J. E., Martin, L. S., & Mason, B. (1984). *A review of the Suicide Constellation*. 11th International Rorschach Congress, Barcelona, Spain.
- Exner, J. E., Martin, L. S., & Thomas, E. A. (1983). *Preference for waiting room seating among subjects with elevations or absence of T in the Rorschach*. Rorschach Workshops (Study No. 282, unpublished).
- Exner, J. E., Murillo, L. G., & Cannavo, F. (1973). *Disagreement between ex-patient and relative behavioral reports as related to relapse in non-schizophrenic patients*. Eastern Psychological Association, Washington, DC.
- Exner, J. E., & Sanglade, A. A. (1992). Rorschach changes following brief and short term therapy. *Journal of Personality Assessment*, 59, 59-71.
- Exner, J. E., Thomas, E. A., & Mason, B. (1985). Children's Rorschachs: Description and prediction. *Journal of Personality Assessment*, 49, 13-20.
- Exner, J. E., Viglione, D. J., & Gillespie, R. (1984). Relationships between Rorschach variables as relevant to the interpretation of structural data. *Journal of Personality Assessment*, 48, 65-70.
- Exner, J. E., & Weiner, I. B. (1982). *The Rorschach: A Comprehensive System. Volume 3. Assessment of children and adolescents*. New York: Wiley.
- Exner, J. E., & Wylie, J. R. (1977). Some Rorschach data concerning suicide. *Journal of Personality Assessment*, 41, 339-348.
- Exner, J. E., Wylie, J. R., Leura, A. V., & Parrill, T. (1977). Some psychological characteristics of prostitutes. *Journal of Personality Assessment*, 41, 474-485.
- Exner, J. E., Zalis, T., & Schumacher, J. (1976). *Rorschach protocols of chronic amphetamine users*. Rorschach Workshops (Study No. 233, unpublished).
- Fiske, D. W., & Baughman, E. E. (1953). The relationship between Rorschach scoring categories and the total number of responses. *Journal of Abnormal and Social Psychology*, 48, 25-30.
- French, T. M. (1947). Some psychoanalytic applications of the psychological field concept. In S. S. Tomkins (Ed.), *Contemporary psychopathology* (pp. 223-234). Cambridge, MA: Harvard University Press.
- Gacono, C. B., & Meloy, J. R. (1991). A Rorschach investigation of attachment and anxiety in antisocial personality disorder. *Journal of Nervous and Mental Diseases*, 179, 546-552.
- Gantt, W. H. (1947). The origin and development of nervous disturbances experimentally produced. In S. S. Tomkins (Ed.), *Contemporary psychopathology* (pp. 414-424). Cambridge, MA: Harvard University Press.
- Haan, N. (1964). An investigation of the relationships of Rorschach scores, patterns and behaviors to coping and defense mechanisms. *Journal of Projective Techniques and Personality Assessment*, 28, 429-441.
- Hertz, M. R. (1948). Suicidal configurations in Rorschach records. *Rorschach Research Exchange*, 12, 3-58.
- Ihanus, J., Keinonen, M., & Vanhamaki, S. (1992). Rorschach movement responses and the TAT Transcendence Index in physically handicapped children. *Perceptual and Motor Skills*, 74, 1115-1119.
- Kallstedt, F. E. (1952). A Rorschach study of 66 adolescents. *Journal of Clinical Psychology*, 8, 129-132.
- Kemalof, S. (1952). The effect of practice in the Rorschach test. In W. Peters (Ed.), *Studies in Psychology and Pedagogy*. Istanbul: University of Istanbul Press.
- Klopfer, B. (1938). The shading responses. *Rorschach Research Exchange*, 2, 76-79.
- Klopfer, B., Ainsworth, M., Klopfer, W., & Holt, R. (1954). *Developments in the Rorschach technique. Vol 1*. Yonkers-on-Hudson, NY: World Books.

- Klopfer, B., & Kelley, D. (1942). *The Rorschach technique*. Yonkers-on-Hudson, NY: World Books.
- Klopfer, B., Kirkner, F., Wisham, W., & Baker, G. (1951). Rorschach prognostic rating scale. *Journal of Projective Techniques*, 15, 425-428.
- Klopfer, B., & Spiegelman, M. (1956). Differential diagnosis. In B. Klopfer and others, *Developments in the Rorschach technique. II: Fields of application*. Yonkers-on-Hudson, NY: World Books.
- Klopfer, W. (1946). Rorschach patterns of old age. *Rorschach Research Exchange*, 10, 145-166.
- Lazarus, R. S. (1983). The costs and benefits of denial. In S. Breznitz (Ed.), *The denial of stress* (pp. 1-30). New York: International Universities Press.
- Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer.
- Leura, A. V., & Exner, J. E. (1976). *Rorschach performances of children with a multiple foster home history*. Rorschach Workshops (Study No. 220, unpublished).
- Liddell, H. S. (1944). Conditioned reflex method and experimental neurosis. In J. McV. Hunt (Ed.), *Personality and the behavior disorders* (Vol. 1, pp. 389-412). New York: Ronald Press.
- Light, B. H., & Amick, J. (1956). Rorschach responses of normal aged. *Journal of Projective Techniques*, 20, 185-195.
- Loving, J. L., & Russell, W. F. (2000). Selected Rorschach variables of psychopathic juvenile offenders. *Journal of Personality Assessment*, 75, 126-142.
- Mair, N. R. F. (1949). *Frustration*. New York: McGraw-Hill.
- Marsh, A., & Viglione, D. J. (1992). A conceptual validation study of the texture response on the Rorschach. *Journal of Personality Assessment*, 58, 571-579.
- Maslow, A. H. (1947). Conflict, frustration and the theory of threat. In S. S. Tomkins (Ed.), *Contemporary psychopathology* (pp. 588-594). Cambridge, MA: Harvard University Press.
- McClelland, D. C., Atkinson, J. W., Clark, R. W., & Lowell, E. L. (1953). *The achievement motive*. New York: Appleton-Century-Crofts.
- McFate, M. Q., & Orr, F. G. (1949). Through adolescence with the Rorschach. *Rorschach Research Exchange*, 13, 302-319.
- Meltzer, H. (1944). Personality differences between stuttering and nonstuttering children as indicated by the Rorschach test. *Journal of Psychology*, 17, 39-59.
- Miller, N. E. (1944). Experimental studies of conflict. In J. McV. Hunt (Ed.), *Personality and the behavior disorders* (Vol. 1, pp. 431-465). New York: Ronald Press.
- Montalto, F. D. (1952). Maternal behavior and child personality: A Rorschach study. *Journal of Projective Techniques*, 16, 151-178.
- Pierce, G. E. (1978). The absent parent and the Rorschach "T" response. In E. I. Hunter & D. S. Nice (Eds.), *Children of military families*. Washington, DC: U.S. Government Printing Office.
- Piotrowski, Z. (1957). *Perceptanalysis*. New York: Macmillan.
- Piotrowski, Z., & Abrahamsen, D. (1952). Sexual crime, alcohol, and the Rorschach test. *Psychiatric Quarterly Supplement*, 26, 248-260.
- Piotrowski, Z., & Schreiber, M. (1952). Rorschach perceptanalytic measurement of personality changes during and after intensive psychoanalytically oriented psychotherapy. In G. Bychowski & J. L. Despert (Eds.), *Specialized techniques in psychotherapy*. New York: Basic Books.
- Potantin, N. (1959). Perceptual preferences as a function of personality variables under normal and stressful conditions. *Journal of Abnormal and Social Psychology*, 55, 108-113.
- Rabinovitch, S. (1954). Physiological response, perceptual threshold, and Rorschach test anxiety indices. *Journal of Projective Techniques*, 18, 379-386.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Psychological diagnostic testing* (Vol. 2). Chicago: Yearbook Publishers.
- Ridgeway, E. M., & Exner, J. E. (1980). *Rorschach correlates of achievement needs in medical students under an arousal state*. Rorschach Workshops (Study No. 274, unpublished).
- Rorschach, H., & Oberholzer, E. (1923). The application of the interpretation of form to psychoanalysis. In *Zeitschrift für die Gesamte Neurologie und Psychiatrie*, 82, 240-274.
- Seligman, M. E. P., Abramson, L. Y., Semmel, A., & von Baeyer, C. (1979). Depressive attributional style. *Journal of Abnormal Psychology*, 88, 242-247.
- Selye, H. (1956). *The stress of life*. New York: McGraw-Hill.
- Sommer, R., & Sommer, D. T. (1958). Assaultiveness and two types of Rorschach color responses. *Journal of Consulting Psychology*, 22, 57-62.

- Steiner, M. E. (1947). The use of the Rorschach method in industry. *Rorschach Research Exchange*, 11, 46-52.
- Thompson, G. M. (1948). MMPI correlates of movement responses on the Rorschach. *American Psychologist*, 3, 348-349.
- Waller, P. F. (1960). The relationship between the Rorschach shading response and other indices of anxiety. *Journal of Projective Techniques*, 24, 211-216.
- Warshaw, L., Leiser, R., Izner, S. M., & Sterne, S. B. (1954). The clinical significance and theory of sodium amytal Rorschach testing. *Journal of Projective Techniques*, 18, 248-251.
- Weber, A. (1937). Delirium tremens und alkoholhalluzinose in Rorschachschen Formdeutversuch. *Zeitschrift für die Gesamte Neurologie und Psychiatrie*, 159.
- Weber, C. A., Meloy, J. R., & Gacono, C. B. (1992). A Rorschach study of attachment and anxiety in inpatient conduct disordered and dysthymic adolescents. *Journal of Personality Assessment*, 58, 16-26.
- Weiner, I. B., & Exner, J. E. (1991). Rorschach changes in long-term and short-term psychotherapy. *Journal of Personality Assessment*, 56, 453-465.
- Wiener-Levy, D., & Exner, J. E. (1981). The Rorschach EA-ep variable as related to persistence in a task frustration situation under feedback conditions. *Journal of Personality Assessment*, 45, 118-124.

CHAPTER 15

Situationally Related Stress

The majority of people who are administered the Rorschach, especially those tested in mental health settings, are likely to be under some stress. Typically, this stress has persisted over time and the products of it become evident as the various clusters of data are studied. In some cases, however, stress may have evolved from more recent, specific events. These are situational stresses. Situationally created stresses can evolve from any of a variety of personal trauma, such as failures, disappointments, emotional loss, conflicts about decisions. Usually, they create considerable psychological discomfort for even the most well-adjusted person. If the situational stress experience overlays a chronic stress condition, the new experience will amplify the pre-existing discomfort and sometimes can wreak psychological havoc on a person. Regardless of pre-existing circumstances, situationally related stress experiences almost always impact on some aspects of psychological functioning.

In most instances, a well-taken history will detect the presence of situationally related stress and provide a basis from which Rorschach findings can be readily cast in an appropriate perspective. In some cases, however, the history may be vague, incomplete, or unavailable, thereby making the task of the interpreter somewhat more difficult. Regardless of the history, the responsibility of the interpreter is to determine if the Rorschach data include any findings that might be attributable to situational factors. The presence of such findings often can be quite relevant for some of

the conclusions that are formulated from the data in the various clusters. In fact, if information concerning situational stress effects is neglected, there is a risk of developing misleading or erroneous conclusions during the interpretation of the various clusters because findings are not presented in an appropriate context that considers the impact of the situational stress.

RORSCHACH DATA RELATED TO SITUATIONAL STRESS

Ordinarily, the presence of situationally related stress is evidenced in Rorschach data by a difference in the values for the D Scores; that is, the value for D will be less than the value for Adj D. When a difference between D Score values exists, it triggers a systematic search of the array of variables that are, or can be, related to situational stress. As noted in the preceding chapter, the Adjusted D Score affords a crude index of the typical or customary capacity for control. The D Score, on the other hand, provides an indication of *current* control and stress tolerance capabilities. When the values for the two D Scores differ, it is logical to assume that some circumstance exists that has reduced the person's capacity for control and has caused stress tolerance to be lower than usual.

All of the variables in this array [D, Adj D, *m*, *SumY*, Blend complexity, Color-shading blends, *SumT*, *SumV*, Pure *C*, *M*-, and Formless *M*] may relate to situational stress, but they also relate to other psychological features. As such, they

also are studied in one or more of the cluster based interpretive routines, but none of those routines include an evaluation of these variables as a collective.

For instance, some of the variables in the array are drawn from the cluster related to controls and will have already been reviewed once before the array is addressed. Others appear in the clusters concerning affect, ideation, self-perception and interpersonal perception. They are studied as a collective *only* when the third Key Variable is positive ($D < \text{Adj } D$) because that finding implies the presence of situationally related stress and presumes that the array will yield important information concerning the impact of a situational stress state.

Presearch Issues

The major objectives of the interpretive search are threefold: (1) to confirm that the difference in the D Scores does reflect situational stress and does not simply represent a spurious finding, (2) to assess the magnitude of the stress experience and formulate the description of it as realistically as possible, and (3) to establish a conceptual framework concerning the effects of the situational experience that may afford some clarification about other findings when studying the psychological features reflected in the various clusters.

Data for the variables in the array concerning situational stress from the protocols of three adults, identified as Cases 3, 4, and 5, will be used to illustrate the steps in the interpretive search. Each is displayed prior to each step in the

review unless it is not relevant to the issue(s) being addressed.

Case 3

This is a 36-year-old male who is currently involved in divorce proceedings initiated by his wife, which includes a custody dispute regarding their two daughters, ages 6 and 9. He and his wife have been married for 10 years. He is the older of three children (two sisters, ages 33 and 30). Both parents are still living. His father, age 62, works for a radio station. His mother, age 60, is a housewife. He describes his family as being very close. He completed high school at age 18 and enrolled at a university with the intention of majoring in communications, but discontinued his education after two years to begin working in the public relations department of an insurance firm. At age 27, he accepted a position with an advertising firm. He now works there in a middle management position.

His wife, also age 36, is a college graduate and works as a high school biology teacher. She taught full time during the first two years of their marriage, then worked part time as a substitute teacher until two years ago when she returned to full time teaching. Their oldest daughter is in the fourth grade and the younger daughter is in the first grade. Both children are reported to be progressing satisfactorily. Approximately eight months ago, his wife demanded that he move out of their home after learning that he had been having an affair with a woman from his workplace. He lives in an apartment since the separation.

As per a separation agreement, his daughters live with their mother and he is permitted to take them for one day each weekend. He has asked for more time with them but his wife has refused. She is seeking full custody. In the divorce action, his wife has argued that it would be unfair to the children to force them into a

Case 3. Situational Stress Data for a 36-Year-Old Male.

EB	= 3:7.0	EA = 10.0	D	= -1	Blends
eb	= 6:7	es = 13 Adj es = 10	AdjD	= 0	M.FD.FY = 1
FM	= 4 m = 1	C' = 1 T = 2 V = 1 Y = 4 (3r+(2) / R) = .43)			M.CF = 1
					FM.CF = 1
					FM.FT = 1
					m.CF = 1
Pure C = 1	M- = 0	MQnone = 0	Blends = 7		CF.YF = 1
					FC.FC' = 1

split residence. In the pretest interview, he reported that his emotional life is fine except for the anger that he harbors about his wife's unwillingness to compromise about the custody arrangement. He claims that he is a good father and wants to participate more actively in any decisions concerning his children. He implied that he may remarry after the divorce is final, but was somewhat vague about that decision when asked about specific details. Psychological assessment of both parents, which included the Rorschach, was agreed to by the opposing attorneys.

Case 4

This 23-year-old female has been employed as a flight attendant for the past two years. She graduated from college at age 21 and accepted her current position, "because it seemed like fun and I like to travel." Approximately four weeks ago she was suspended by the airline after three ounces of cocaine was found during a routine inspection of her travel luggage. She claims that she was transporting it for a friend, but later admitted that she has used cocaine on "a few occasions, but always on days off from work." She says that she has been very upset and depressed since the event and is seeking reinstatement. This evaluation was arranged by her union in hopes that favorable information will result and can be used as part of her appeal for reinstatement.

She is the second of three daughters (sisters ages 26 and 17). Her father, age 51, is a university professor. Her mother, age 52, does not work outside of the home. She denies any personal problems, noting that she has a wide range of friendships and dates regularly but not with "any special person." She freely admits to occasional drug use during college. She states that she has not been certain about being a career flight attendant but had intended to try it for at least five years. She says that she would like to marry "when I'm in my

late 20s, but I also want to keep working." She argues that "I'm really good at my job," and feels that she is being treated unfairly, "some of the others really are into drugs but they never get caught." She recognizes that it might be difficult to obtain another position if she is discharged.

Case 5

This 57-year-old male has been referred for evaluation by his family physician. The referral, which also requests a neuropsychological evaluation, was prompted after he complained to his doctor about experiencing dizzy spells. He also reports difficulties concentrating, and notes that he often wakes during the night, has trouble falling asleep again, and feels very fatigued the next day. He has a history of good health before the onset of these symptoms. Prior to the referral, a thorough physical examination, including cardiovascular and neurological tests, yielded negative results.

He married at age 22 after graduating with a bachelor's degree in engineering from a state university. His wife, also age 22, graduated at the same time, having majored in art. Shortly thereafter, he was drafted and served three years in the army, including 16 months in Vietnam. During that time, his wife taught art classes in a junior high school. After being discharged, he accepted a position with a machinery construction firm and worked there for seven years. While there, his wife gave birth to their two children, a boy, now age 29, and a girl, now age 27. Both children are now married and live in distant parts of the country. At age 32, he and a coworker started their own business, specializing in the use of stress frames for bridge construction. The business has been very successful and they currently have 34 employees.

About two years ago, his wife was diagnosed with cervical cancer. She died eight months ago. He says that the time since her death has been difficult, but

Case 4. Situational Stress Data for a 23-Year-Old Female.

EB	= 5:6.0	EA = 11.0	D	= -2	Blends
eb	= 8:8	es = 16	AdjD	= 0	M.CFFC' = 1
		Adj es = 13			M.FD = 1
FM	= 5 m = 2	C' = 3	T = 1	V = 1	FM.CFFr = 1
				Y = 4	FM.FC' = 1
				(3r+(2)/R) = .48)	m.CF = 2
Pure C = 0	M- = 1	MQnone = 0		Blends = 8	FC.FY = 2

Case 5. Situational Stress Data for a 57-Year-Old Male.

EB	= 8:5.0	EA = 13.0	D	= 0	Blends
eb	= 7:8	es = 15 Adj es = 10	AdjD	= +1	M.FC.FY = 1
					M.CF = 2
FM	= 4 m = 3	C' = 2 T = 2 V = 0 Y = 4			FM.FT.FY = 1
		(3r+(2) / R = .38)			FM.FC' = 1
Pure C = 0	M = 0	MQnone = 0	Blends = 7		m.CF = 1
					m.YF = 1

feels that he is gradually adjusting. During the past few months, he has taken more time away from work than usual. He has used that time to visit each of his children, go on an extensive fishing trip with two friends, and "just gradually get my life together." He says that he was very "angry and depressed" during his wife's illness and that he felt helpless after her death, but notes he has not experienced much sadness or depression during the past few months. He says that "two or three of my friends have tried to fix me up with divorced women, but they don't interest me much." Recently, he has been devoting much of his time to a new construction design "that I've been thinking about for a long time" and suggests that he has made good progress on the project. He cannot account for his dizzy spells or the episodes in which he loses his concentration, except to note that "I thought maybe I had a tumor or something."

BASIC HYPOTHESES WHEN D SCORES DIFFER

As noted earlier, when the value for D is less than the value for Adj D, a basic hypothesis establishes a framework for the interpretation of this collective of variables. In effect, it is assumed that *the person is experiencing an increase in stimulus demands as a result of some sort of situationally related stress. As a consequence, some decisions and/or behaviors may not be as well organized as is usually the case.*

A secondary assumption or hypothesis is added if the D Score is in the minus range, namely that, *he or she currently is in an overload state and, as a result, may be more prone to some form of impulsiveness than ordinarily is the case.*

PRESEARCH REVIEW OF SCORES

As emphasized in Chapter 13, it is always wise to challenge findings. This is especially important when reviewing the D Score. Often, a D Score will be in a lower range because of a single point difference in the formula $EA - es$. For example, if the EA is 9 and the es is 12, the three point difference yields a D Score of -1. Conversely, if the difference were only two points the D Score would be zero. Similarly, if EA is 10.5 and es is 15, the D Score will be -1 whereas if the es were 16 the D Score would be -2. The astute interpreter will always be alert to these one point phenomena and be prepared to review the codings for responses containing m, Y, and C' variables to ensure that correct values have been entered for the es and Adj es.

The need to challenge the data regarding the D scores is so important in marginal cases that a systematic review is required when studying the array of variables related to situational stress. It formally constitutes the first step in the interpretive routine, and focuses on the issue of whether a one point difference between D Scores is a valid indicator of situational stress. The answer is not always simple.

INTERPRETIVE ROUTINE

Step 1: D, EA, es, Adj es, and History (if appropriate)

Review the D Score in relation to the difference between $EA - es$ and $EA - Adj es$ to consider the

possibility of a false positive finding. Consideration here is whether the scoring for a single response causes a difference in D scores to occur.

Potential Finding 1: The D Score is less than the Adjusted D Score and the difference between *es* and Adj *es* is two points or greater. If this finding is positive, the likelihood of a false positive difference between the D Scores is remote. Proceed to Step 2.

Cases 3, 4, and 5 Findings Positive

In these cases, the difference between *es* and Adj *es* ranges from two to five points.

Potential Finding 2: The D Score is less than the Adj D Score and the *es* is only one point greater than the Adj *es*. Because the difference in D Scores is created by a marginal difference between *es* and Adj *es*, one, or sometimes two issues should be considered that challenge the integrity of the basic hypothesis created by the difference between the D Scores.

The first concerns the coding of the answers that create the difference between *es* and Adj *es*, that is, responses containing the *m* and *Y* determinants. If any have been scored incorrectly, there would be no difference between *es* and Adj *es*, and thus, no difference between the D Scores. If this proves to be true, the hypothesis concerning the presence of situational stress is incorrect and the search of the array of variables related to it should be discontinued.

Potential Finding 2a: If the scoring of the *m* and *Y* determinants is correct, a second challenge to the basic hypothesis should focus on the recent history seeking information about any of a broad variety of circumstances that can create situational stress. Typically, the review of the history will yield one of three results:

1. The history is elaborate and does identify recent situations that could be experienced by

the subject as stressful. When this occurs, the basic hypothesis is strengthened and, if the D Score is in the minus range, the secondary proposition regarding the potential for impulsiveness remains viable. The search of the array should continue. Proceed to Step 2.

2. The history is very brief or imprecise, offering essentially no useful information regarding recent stress experiences. When this is the case, the basic and secondary hypotheses should be cautiously retained *as speculations*, and the search through the array continued. Sometimes, the data for other variables in the array, especially an unexpected elevation in the values for *SumT* (more than 1) or *SumV* (more than zero), tend to support the notion of situational stress. If such data are not detected in the array, a judgment must be made by the interpreter about whether to include the basic hypothesis among final conclusions. In most instances, interpreters will probably decide *not* to include it. If it is included, it should be couched in very speculative terms, such as "may be experiencing," but it is probably unwise to include mention of the impulsiveness issue. Proceed to Step 2.
3. The history has been well developed but contains no information concerning situational stress experiences. In this circumstance, the interpreter should be very conservative about the basic hypothesis concerning situational stress and even more so about the secondary proposition regarding impulsiveness. In fact, if a quick scan of the other data in the array *do not* include unexpected values for *SumT*, or *SumV*, a judgment call is warranted. Some interpreters may decide that it is probably best to discard both hypotheses, discontinue the search of the array, and proceed to the next cluster of data. Others may want to adhere more closely to the data and include the finding. If the latter strategy is selected, the finding should be stated in a most conservative manner.

Step 2: Adj D—D

The difference between the D Score and the Adjusted D Score should be reviewed to establish a preliminary estimate regarding the magnitude of the stress.

Potential Finding 1: Ordinarily, the resulting value will be a one point difference, suggesting that the impact of the situational stress will probably range from mild to moderate. Although a one point difference between D Scores signals the presence of some psychological disruption, it is not necessarily disorganizing. The data review in Steps 3 through 7 address this issue more precisely. Proceed to Step 3.

Cases 3 and 5 Findings Positive

In each case, the Adj D Score is one point greater than the D Score of -1. Some disruption is likely.

Potential Finding 2: If the value of the D Score is more than one point less than the Adj D, it usually indicates that the experience of the stress is substantial. The impact of the stress typically creates considerable interference in some of the customary patterns of thinking and/or behavior. The data review in Steps 3 through 6 addresses this issue more precisely. Proceed to Step 3.

Case 4 Finding Positive

The Adj D Score is zero and the D Score is -2. Disruption is probably considerable and some

Case 3. Situational Stress Data for a 36-Year-Old Male.

EB	= 3:7.0	EA = 10.0	D	= -1	Blends
eb	= 6:7	es = 13 Adj es = 10	AdjD	= 0	M.FD.FY = 1
FM	= 4 m = 1	C' = 1 T = 2 V = 1 Y = 4			M.CF = 1
		(3r+(2) / R) = .43)			FM.CF = 1
Pure C = 1	M- = 0	MQnone = 0	Blends = 7		FM.FT = 1
					m.CF = 1
					CF.YF = 1
					FC.FC' = 1

Case 5. Situational Stress Data for a 57-Year-Old Male.

EB	= 8:5.0	EA = 13.0	D	= 0	Blends
eb	= 7:8	es = 15 Adj es = 10	AdjD	= +1	M.FC.FY = 1
FM	= 4 m = 3	C' = 2 T = 2 V = 0 Y = 4			M.CF = 2
		(3r+(2) / R) = .38)			FM.FT.FY = 1
Pure C = 0	M- = 0	MQnone = 0	Blends = 7		FM.FC' = 1
					m.CF = 1
					m.YF = 1

Case 4. Situational Stress Data for a 23-Year-Old Female.

EB	= 5:6.0	EA = 11.0	D	= -2	Blends
eb	= 8:8	es = 16 Adj es = 13	AdjD	= 0	M.CF.FC' = 1
FM	= 5 m = 2	C' = 3 T = 1 V = 1 Y = 4			M.FD = 1
		(3r+(2) / R) = .48)			FM.CF.Fr = 1
Pure C = 0	M- = 1	MQnone = 0	Blends = 8		FM.FC' = 1
					m.CF = 2
					FC.FY = 2

disorganization of psychological operations is quite likely.

Step 3: *m* and *SumY*

Situational stress can have an adverse effect on the thinking and/or emotions of the person. At times, the effect may be greater on one than the other. The impact of the stress on thinking or feelings is crudely reflected by the magnitude of the values for *m* and *SumY*. It is because one or both of those values are elevated that the D Score is less than the Adj D. The purpose of this step is to determine if the values for these variables provide information that can be useful in understanding the current psychological state of the person.

The *m* variable relates to forms of intrusive ideation not in the person's focus of attention. When such thinking increases, it tends to interfere with attention and concentration and can cloud judgment. The *SumY* variable is associated with feelings that are prompted by a sense of helplessness or an inability to make a response. When these feelings intensify, they usually manifest as apprehension, anxiety, or sadness and can be very disruptive.

If the situational stress does impact more on thinking than emotion, or *vice versa*, the finding not only has importance in understanding the consequences of the stress, but also can be very important when planning intervention strategies to deal with it.

Potential Finding 1: If the value for *m* or the value for *SumY* is not more than three times greater than the other, it can be assumed that the psychological consequences of the stress tend to be diffuse, impacting on both thinking and emotion. However, if the value for either is noticeably elevated (more than two), even though not three times greater than the other, it can provide some clues about the stress impact that may be worth mentioning when describing the person. Proceed to Step 4.

Cases 4 and 5 Findings Positive

In both of these cases, neither *m* or *SumY* is more than three times greater than the other. Thus, a general conclusion is that, in each instance, the effect of the situational stress tends to be diffuse. However, there are some elevations in the values that are worth noting in a description.

While the stress effect in Case 4 is probably diffuse, the 4 *Y* responses suggest that it may be worthwhile to note that she is experiencing considerable discomfort because of a sense of helplessness, apparently related to her current situation. In Case 5, elevated values appear for the two variables, suggesting that his reactions to the stress that he is experiencing include both noticeable disruptions in attention-concentration, and substantial discomfort because of a sense of helplessness.

Potential Finding 2: If the value for *m* is more than three times that of *SumY*, it is likely that the stress is having a more substantial impact on ideation. As a result, attention and concentration are likely to be noticeably impaired. Proceed to Step 4.

Potential Finding 3: If the value of *SumY* is more than three times that of *m*, it is likely that the stress is having a greater impact on emotion. Experiences of anxiety, tension and/or discomfort for which the person has little or no explanation are quite probable. Proceed to Step 4.

Case 3 Finding Positive

The value for *SumY* is four times greater than the value for *m*. This suggests that the stress is impacting mainly on his feelings, and most likely is creating considerable tension and/or anxiety.

Step 4: Adj D, D, *SumT*, and *SumV*

Reconsider the difference between the Adj D and D Scores in light of the values for *SumT* and *SumV*. Both D scores are standard scores based on standard deviations and, as such, the difference between them provides only an unrefined estimate of the impact of situational stress. The

ancillary data for *SumT* and *SumV* are important sources from which hypotheses derived from the difference between the two D scores might be strengthened or modified.

Usually, the texture and vista variables are considered to be related to stable, trait-like phenomena. It is for this reason that they are not routinely included in adjustments to *es*. In some instances, however, the values for *SumT* or *SumV* may reflect a situational or state-like phenomena. Therefore, it is necessary to review the *SumT* and *SumV* values to determine if either are higher than expected and if so, to review the history to ascertain if the higher scores may be related to situational circumstances.

Potential Finding 1: If the value for *SumT* is not greater than 1 and the value for *SumV* is not greater than zero, or if the *SumV* is greater than zero but the Egocentricity Index ($3r + (2/R)$) is not greater than .32, there is no reason to reconsider the difference between the D scores. Proceed to Step 5.

Note: The Egocentricity Index cutoff value of .33 is applicable only for persons who are age 15 or older. The following cutoff scores should be used for younger persons:

Age 14 = .37; Ages 12 and 13 = .38; Ages 9, 10, and 11 = .45; Age 8 = .48; Ages 5, 6, and 7 = .52.

Potential Finding 2: If the value for *SumT* is greater than 1, or the value for *SumV* is greater than zero and the value for the Egocentricity Index ($3r + (2/R)$) is .33 or higher (adjusted for children), the D Score value may be misleading. In either instance, a reconsideration of the D Score may be warranted. *The decision to do so is contingent on the history.*

For instance, if the value for *SumT* is 2 or more, it is very possible that some of the situational stress being experienced may relate to recent emotional loss. This should be confirmed easily by the history. If the history does not reveal an obvious recent emotional loss, no

reconsideration of the D score differences, based on the *SumT* variable, should occur.

Similarly, a *SumV* value of one or more in a record in which the Egocentricity Index is .33 or higher suggests that some situational stress may relate to recently developed feelings of guilt or remorse. This should be confirmed by the history. If the history does not include reasonably clear evidence for the possibility of guilt or remorse, no reconsideration of the D score differences, based on the *SumV* variable, should occur.

When the history provides support concerning recent emotional loss in the instance of *SumT*, or a recent event from which feelings of guilt or remorse might have developed in the instance of *SumV*, the difference between the D scores should be reconsidered. This is done by reviewing the $EA - Adj\ es$ formula again to determine whether the Adj D Score would be increased if the number of points above the expected value for each variable is also subtracted from the Adj *es* value. As noted above, the expected value for *SumT* is one and the expected value for *SumV* is zero. For example, if a protocol for which the difference between D scores is being reconsidered contained two texture responses and no vista responses, one additional point would be subtracted from the Adj *es* and the Adj D recalculated. Likewise, if a protocol being reconsidered contained three texture responses and two vista responses, four points would be subtracted from the Adj *es*.

In the majority of cases, the subtraction of one or two points from the Adj *es* will not change the Adj D. In some cases, however, the difference between the D scores may increase, and when this occurs, the hypothesis developed in Step 2 should be altered. The nature of the alteration depends largely on the certainty that the history has confirmed a recent emotional loss when *SumT* is involved, or that sense of guilt or remorse is highly likely when *SumV* is an issue. If the history leaves little doubt about the issue(s), the hypothesis should

be restated in a manner that clearly reflects the increased difference between the D scores. On the other hand, if the history is equivocal about the issue(s), the hypothesis developed in Step 2 should merely be supplemented with a more speculative statement.

Case 3 Finding Positive

His protocol has a *SumT* of 2 and a *SumV* of 1 with an Egocentricity Index of .43. The history suggests that both of these higher than expected values may have a situational basis. Evidence of emotional loss may be reflected by the fact that his marriage is being dissolved, he has limited contact with his daughters, and his current relationship with another woman seems unclear. The fact that his affair has led to the marital breakup and the potential loss of custody rights suggests that some feelings of guilt or remorse are possible. When the one point

difference between D scores is reconsidered by subtracting 2 points from the *Adj es* ($10 - 2 = 8$), the *Adj D* Score remains at zero, but the fact that *EA* is now greater than the *Adj es* strengthens the hypothesis about his usual capacities for control and tolerance for stress.

Thus, the hypothesis developed from Step 2 should be retained, but supplemented. It might be best stated as (from the Steps 2 and 3 findings), "He seems to be experiencing the effects of situational stress that may cause some psychological disruption that seems to impact mainly on his feelings. (Supplement from Step 4.) Some of this disruption may be related to a sense of loss concerning his children and/or feelings of remorse about his actions that have led to the dissolution of the marriage. The disruption may be severe at times, causing some disorganization to occur, especially in situations that are complex and/or unfamiliar."

Case 3. Situational Stress Data for a 36-Year-Old Male.

EB	= 3:7.0	EA = 10.0	D	= -1	Blends
eb	= 6:7	es = 13	AdjD	= 0	M.FD.FY = 1
		Adj es = 10			M.CF = 1
FM	= 4 m = 1	C' = 1 T = 2 V = 1 Y = 4			FM.CF = 1
		(3r+(2) / R) = .43)			FM.FT = 1
					m.CF = 1
Pure C = 1	M-- = 0	MQnone = 0	Blends = 7		CF.YF = 1
					FC.FC' = 1

Case 4. Situational Stress Data for a 23-Year-Old Female.

EB	= 5:6.0	EA = 11.0	D	= -2	Blends
eb	= 8:8	es = 16	AdjD	= 0	M.CF.FC' = 1
		Adj es = 13			M.FD = 1
FM	= 5 m = 2	C' = 3 T = 1 V = 1 Y = 4			FM.CF.Fr = 1
		(3r+(2) / R) = .48)			FM.FC' = 1
					m.CF = 2
Pure C = 0	M-- = 1	MQnone = 0	Blends = 8		FC.FY = 2

Case 5. Situational Stress Data for a 57-Year-Old Male.

EB	= 8:5.0	EA = 13.0	D	= 0	Blends
eb	= 7:8	es = 15	AdjD	= +1	M.FC.FY = 1
		Adj es = 10			M.CF = 2
FM	= 4 m = 3	C' = 2 T = 2 V = 0 Y = 4			FM.FT.FY = 1
		(3r+(2) / R) = .38)			FM.FC' = 1
					m.CF = 1
Pure C = 0	M-- = 0	MQnone = 0	Blends = 7		m.YF = 1

Case 4 Finding Positive

There is one *Vista* response in her protocol, and the Egocentricity Index is .48. It may relate to a sense of guilt or remorse concerning her current situation but, if it is subtracted from the *Adj es*, there is no change in the *Adj D* Score.

Case 5 Finding Positive

His protocol includes two texture responses, which are quite likely related to the loss of his wife. If one point is subtracted from the *Adj es*, there is no change in the *Adj D* Score value of +1.

Step 5: D Score

Review the D Score value to address the issue of stimulus overload and the possibility of impulsiveness and, if appropriate, consider the ancillary data for Pure *C*, *M*–, and Formless *M*.

Potential Finding 1: If the D Score value is zero or greater, the impact of the situational stress is probably rather modest. Nonetheless, the fact that D is less than the *Adj D* does support a basic hypotheses that (1) some situational stress is present, and (2) the stress tolerance of the person is lower than usual and typical capacities for control may be less sturdy than is customary. There is no evidence supporting a secondary hypothesis that a loss of control leading to impulsiveness is likely, because the D Score is zero or greater.

The presence of Pure *C* responses when the D Score is zero or greater *does not* reflect impulsiveness. Instead, it signifies that, in some

instances, available resources are not committed to the modulation or containment of affect. This issue will be studied when the cluster concerning affect is reviewed. Similarly, when the D Score is zero or greater, the presence of *M*–, or Formless *M* answers does not indicate situationally provoked loss of ideational control. They do raise a question about more enduring problems in thinking which will be addressed when the ideation cluster is reviewed. Proceed to Step 6.

Case 5 Finding Positive

The D Score is zero and, although he is apparently under considerable situationally related stress, the impact on his overall functioning seems to be modest, mainly because his usual capacities for control are sturdy. There are no Pure *C*, *M*–, or formless *M* responses. Thus, there is no reason to suspect that he is vulnerable to disorganization or impulsiveness.

Potential Finding 2: If the D score has a minus value, an overload state exists in which the individual is experiencing more internal demands than he or she can respond to easily and/or effectively. As a result, the capacity for control is lessened, decisions or behaviors may not be well thought through or implemented, and a proclivity for impulsiveness exists.

If this finding is positive, the presence of Pure *C* responses, *M*– answers, or Formless *M* responses are also very important. The presence of one or more Pure *C* answers, when the D Score has a minus value, suggests that some

Case 5. Situational Stress Data for a 57-Year-Old Male.

EB	= 8:5.0	EA = 13.0	D	= 0	Blends
eb	= 7:8	es = 15 Adj es = 10	AdjD	= +1	M.FC.FY = 1
FM	= 4 m = 3	C' = 2 T = 2 V = 0 Y = 4			M.CF = 2
		(3r+(2) / R = .38)			FM.FT.FY = 1
Pure C = 0	M– = 0	MQnone = 0	Blends = 7		FM.FC' = 1
					m.CF = 1
					m.YF = 1

impulsiveness is likely to manifest in affective displays. Likewise, when the D Score has a minus value, the presence of *M-* or Formless *M* responses denotes the possibility that ideational controls may be impaired because of the overload state.

Potential Finding 2a: If the D Score value is -1 , the individual can be expected to function adequately in environments with which he or she is familiar, and especially in situations that are structured and well defined. On the other hand, there is an increasing vulnerability to disorganization and impulsive thinking or behavior as situations become more complex or ambiguous. This vulnerability increases markedly as *EA* falls below the expected range.

The presence of Pure *C* responses in a protocol with a D Score of -1 suggests that emotional impulsiveness is likely and this usually manifests in behaviors that are not well controlled. The presence of *M-* or Formless *M* responses when the D Score is -1 raises a tentative hypothesis that the situational stress may be clouding judgment or creating strangeness in thinking. This hypothesis should be

evaluated carefully during the review of the cluster concerning ideation. Proceed to Step 6.

Case 3 Finding Positive

The D Score is -1 , and there is a Pure *C* answer in the record. This indicates that he is in an overload state and some of his decisions or behaviors may not be well thought through, especially in situations that are unstructured or unfamiliar. It is also possible that his emotions may get out of hand at times, and more impulsive-like behaviors than is customary may occur.

Potential Finding 2b: If the D score is less than -1 , it is reasonable to assume that the person is highly susceptible to difficulties in control. The potential for disorganization is substantial, regardless of the value of *EA*, and people such as this are highly vulnerable to ideational and/or behavioral impulsiveness. Adequate or effective functioning usually is quite irregular except in situations that are very structured and routine. As the D Score becomes less, that is, -3 , -4 , these handicaps increase in almost geometric proportions. Proceed to Step 6.

Case 3. Situational Stress Data for a 36-Year-Old Male.

EB	= 3:7.0	EA	= 10.0	D	= -1	Blends
eb	= 6:7	es	= 13	AdjD	= 0	M.FD.FY = 1
			Adj es = 10			M.CF = 1
FM	= 4 m = 1	C'	= 1			FM.CF = 1
		T	= 2			FM.FT = 1
		V	= 1			m.CF = 1
		Y	= 4			CE.YF = 1
		(3r+(2) / R)	= .43)			FC.FC' = 1
Pure C	= 1	M-	= 0		Blends = 7	
		MQnone	= 0			

Case 4. Situational Stress Data for a 23-Year-Old Female.

EB	= 5:6.0	EA	= 11.0	D	= -2	Blends
eb	= 8:8	es	= 16	AdjD	= 0	M.CF.FC' = 1
			Adj es = 13			M.FD = 1
FM	= 5 m = 2	C'	= 3			FM.CF.Fr = 1
		T	= 1			FM.FC' = 1
		V	= 1			m.CF = 2
		Y	= 4			FC.FY = 2
		(3r+(2) / R)	= .48)			
Pure C	= 0	M-	= 1		Blends = 8	
		MQnone	= 0			

Case 4 Finding Positive

The D Score is -2, indicating considerable overload and the likelihood of persistent difficulties in control. It is probable that her overall functioning is less consistent than has been the case and, because she is prone to impulsiveness, some of her decisions may not be very well thought through and/or implemented effectively. There are no Pure *C* or Formless *M* responses but there is one *M-* answer. This suggests that if impulsiveness occurs, it may include problems in ideational control, and faulty judgments or decisions can result. This requires further study when the ideation data are reviewed.

Step 6: Blends Created by *m* or *Y* Variables

Blend responses provide a rough index of psychological complexity. This step seeks to ascertain if psychological complexity has been increased significantly as a result of greater stimulus demands that have been created by the presence of situational stress. It requires two steps involving reasonably simple calculations.

The first is a tally of the number of Blends in the protocol that have been created *exclusively* by the presence of an *m* or *Y* variable. Usually, these are two variable blends such as *M.FY*, *m.CF*, *CF.YF*, but occasionally they may include three variable blends in which *m* and *Y* are both present such as, *M.m.YF*, or *m.CF.YF*. The second step is a calculation to determine what percentage of the total number of blends in the record are created exclusively by the presence of an *m* or *Y* variable.

Potential Finding 1: If the number of blends created exclusively by *m* or *Y* variables is greater than zero but represents less than 20% of the total number of blends, it can be assumed that there is only a very mild increase in psychological complexity because of the stress condition. Proceed to Step 7.

Potential Finding 2: If the number of blends created exclusively by *m* or *Y* variables represents between 20% and 30% of the total number of blends it can be assumed that there is a moderately significant increase in psychological

complexity as a result of the situational stress. This is especially important if the D Score is in the minus range because increases in complexity during overload conditions increases the potential for impulsive-like behaviors. Proceed to Step 7.

Cases 3 and 5 Findings Positive

Both records contain seven blends and each includes two that are created by the *m* or *Y* variables (Case 3 includes *m.CF* and *CF.YF*; Case 5 includes *m.CF* and *m.YF*). They constitute about 29% of the total number of blends. Therefore, it should be assumed that complexity of each of these men has increased moderately because of the situational stress. In Case 3, this increase tends to increase his potential for impulsiveness.

Potential Finding 3: If the number of blends created exclusively by the presence of *m* or *Y* variables represents more than 30% of the total number of blends, it can be assumed that a substantial increase in psychological complexity has occurred as a result of the situational stress. This is very important because a substantial increase in complexity tends to increase a person's vulnerability for disorganization. This can be especially impairing to individuals who have a D Score in the minus range because the likelihood for disorganization and impulsiveness both escalate. Proceed to Step 7.

Case 4 Finding Positive

The protocol contains eight blends, four of which (two *m.CF* and two *FC.FY*) appear to be situationally related. They represent 50% of the blends in the record and signify that she is much more psychologically complex now than usually is the case. This added complexity increases the potential for disorganization and impulsiveness.

Step 7: Color-Shading Blends

Information that a person often may be confused by feelings can be important to understanding the psychology of that individual. Color-shading

Case 5. Situational Stress Data for a 57-Year-Old Male.

EB	= 8:5.0	EA = 13.0	D	= 0	Blends
eb	= 7:8	es = 15 Adj es = 10	AdjD	= +1	M.FC.FY = 1
FM	= 4 m = 3	C' = 2 T = 2 V = 0 Y = 4			M.CF = 2
		(3r+(2) / R = .38)			FM.FT.FY = 1
Pure C = 0	M- = 0	MQnone = 0	Blends = 7		FM.FC' = 1
					m.CF = 1
					m.YF = 1

blends, that is, blends containing *both* a chromatic color determinant and an achromatic color or shading determinant such as *FC.FY*, *CF.FC'*, *M^a.FC.FV*, are a source that appears to signal some sort of confusion or ambivalence about feelings.

Most people are confused by their feelings from time to time, and the presence of a single color-shading blend in a protocol is not unusual. However, more than one color-shading blend in a protocol is an unusual finding. When situational stress exists, it is important to ascertain if the experience of the stress may have created or increased a sense of confusion about feelings. To do this, two steps are required.

First, the interpreter should study the list of blends to determine if any color-shading blends are present that *are created exclusively* by the combination of a chromatic color determinant and a texture, vista, or achromatic color determinant, such as *CF.C'F*, *FM^a.FC.FT*, *FC.FV*. Color-shading blends of this type indicate the probability of a more persistent confusion or ambivalence about feelings.

In the second step, the interpreter should review the list of blends to ascertain if any color-shading blends present *are created exclusively* by the combination of a chromatic color determinant plus a *Y*

determinant, such as *M^pFC.FY*, *m^a.CF.YF*, *FC.* Color-shading blends of this type suggest the possibility of situational confusion about feelings.

Potential Finding 1: If the list of blends contains no color-shading blends involving a combination of chromatic color and a *T*, *V*, *C'* determinant but does include *one* color-shading blend that is created by the combination of chromatic color and *Y* determinants, can be postulated that the stress condition may have created some modest emotional confusion. Proceed to the next cluster in the interpretive routine.

Case 5 Finding Positive

There is only *one* color-shading blend in the record and it involves a *Y* determinant (*M.FC.FY*). It suggests that the situational stress he is experiencing probably creating some confusion about his feeling

Potential Finding 2: If the list of blends contains at least one involving the combination of chromatic color and a *T*, *V*, or *C'* determinant and also includes *one* color-shading blend created by the combination of chromatic color and *Y* determinants, it can be assumed that

Case 3. Situational Stress Data for a 36-Year-Old Male.

EB	= 3:7.0	EA = 10.0	D	= -1	Blends
eb	= 6:7	es = 13 Adj es = 10	AdjD	= 0	M.FD.FY = 1
FM	= 4 m = 1	C' = 1 T = 2 V = 1 Y = 4			M.CF = 1
		(3r+(2) / R = .43)			FM.CF = 1
Pure C = 1	M- = 0	MQnone = 0	Blends = 7		FM.FT = 1
					m.CF = 1
					CF.YF = 1
					FC.FC' = 1

Case 4. Situational Stress Data for a 23-Year-Old Female.

EB	= 5:6.0	EA = 11.0	D	= -2	Blends
eb	= 8:8	es = 16 Adj es = 13	AdjD	= 0	M.CF.FC' = 1
FM	= 5 m = 2	C' = 3 T = 1 V = 1 Y = 4			M.FD = 1
		(3r+(2) / R) = .48)			FM.CF.Fr = 1
					FM.FC' = 1
					m.CF = 2
Pure C = 0	M- = 1	MQnone = 0	Blends = 8		FC.FY = 2

pre-existing confusion about emotions exists and it has been increased by the situational stress condition. Proceed to the next cluster in the interpretive routine.

Case 3 Finding Positive

In Case 3, there are two color-shading blends (CF.YF, FC.FC'). The first of the two appears to be situationally related and suggests that the stress has likely increased a pre-existing confusion that he has about his feelings.

Potential Finding 3: If there are no color-shading blends involving the combination of a chromatic color determinant and a T, V, or C' determinant, but includes *more than one* color-shading blend that is created by the combination of chromatic color and Y determinants, it can be assumed that the stress condition has created considerable emotional confusion. If the D Score is in the minus range, this added confusion about feelings greatly increases the likelihood of disorganization and impulsiveness.

Potential Finding 4: If the list of blends contains at least one involving the combination of a chromatic color determinant and a T, V, or C' determinant and also includes *more than one* color-shading blend that is created by the combination of chromatic color and Y determinants, it can be assumed that the situational stress condition has substantially intensified a pre-existing confusion about emotions. Regardless of the D Score, this added confusion about feelings increases the vulnerability for episodes of psychological disorganization. If the D Score is

in the minus range, the magnitude of this confusion escalates the likelihood of impulsiveness rather markedly.

Case 4 Finding Positive

In Case 4, there are three color-shading blends (M.CF.FC', and two FC.FY responses). The latter two are likely to be situationally related and appear to indicate a marked increase in ambivalent or equivocal feelings. This is especially important because she has a D Score of -2, and the potential for disorganization and impulsiveness seems to be increased considerably by this sort of emotional confusion.

SUMMARIZING FINDINGS REGARDING SITUATIONAL STRESS

Generally, findings concerning the presence of situational stress will be cast in relation to issues of control and stress tolerance. However, in some instances, findings may be equivocal, and the interpreter should use his or her judgment about how best to broach the issue when writing a description of the person. For instance, when the Adj D Score is zero and the D Score is -1, the history does not include any hints of situational stress experiences, and the difference in the D Scores is created by a single point differential between the es and Adj es, the descriptive statements about situational stress should be very cautious. They should note that the capacities for control and stress tolerance usually are similar to those of most adults, however, the person *may be* experiencing some mild situationally related stress that could cause some modest reduction in those capacities.

In most cases, the data are more definitive and, often, the statements about the person can be more precise. Case 3 concerning the 36-year-old man involved in a divorce and custody dispute is a good illustration. The findings from his record could be summarized as follows: "Ordinarily his capacities for control and tolerance for stress are like that of most adults; however, they have currently become more limited because of situational stress (Step 2). The result is a marked potential for some psychological disruption and a proclivity for impulsiveness (Steps 2 and 4). He appears to feel somewhat helpless about his situation (Step 3). It also seems that he is feeling lonely and may be experiencing a sense of guilt or remorse concerning the dissolution of his marriage (Step 4). He probably functions adequately in structured or familiar situations, but is likely to be less effective in complex or ambiguous circumstances. In effect, he is vulnerable to being overwhelmed by his feelings and, if that occurs, they will tend to drive his behaviors, regardless of how effective or ineffective the behaviors might be (Step 5). Another byproduct of the situational stress is a moderate increase in his psychological complexity, and also in a tendency that he has to become confused by some of his feelings (Steps 6 and 7)."

The Case 4 summary concerning the 23-year-old flight attendant might state, "Ordinarily, her capacities of control and tolerance for stress are like that of most adults but, currently, they have become much more limited because of situationally related stresses. The impact creates a potential for substantial disruption of her psychological operations and a proclivity for impulsiveness (Step 2). Although this disruption will tend to be diffuse, affecting both her emotions and her thinking (Step 3), some of the findings indicate that the stress is affecting her feelings rather markedly (Step 5). The stress situation has also caused her to become much more complex psychologically than usually is the case (Step 6), and there is reason to suspect that it exacerbates a more chronic tendency to become confused about her feelings. This is likely to increase her potential for disorganization and impulsiveness (Step 7)."

A summary concerning the findings for Case 5 is different from either of the other cases, "He usually has very sturdy capacities for control and tolerance for stress, but situationally related elements have caused some modest impairment to those features (Step 2). The stress that he is currently experiencing appears to be very substantial. It does not disorganize him (Step 5), but it does have a significant impact on both his thinking and feelings (Steps 3 and 4). He is probably more distracted than is customary. He also appears to harbor a sense of loneliness and helplessness, and both give rise to feelings of discomfort (Steps 3 and 4). At times, he finds his feelings confusing and seems unable to contend easily with them. As a consequence, some of his decisions or behaviors may not be as well-organized as usually is the case."

Although the remainder of the Case 5 record has not been reviewed, the findings about situational stress should already alert the interpreter to some possible treatment recommendations. His wife of 35 years passed away eight months ago. Usually, in that period of time, people make considerable progress in adjusting to a loss. However, in this case, it seems likely that he has not contended adequately with his grief, and it is likely that he is attempting to persist in a way of life that only serves to exacerbate the sense of loss that he has experienced.

RESEARCH AND POSTULATES ABOUT THE *M* AND *Y* VARIABLES

Research concerning *m* was rather sparse prior to the 1970s. It was included as a coding variable in the Klopfer, Hertz, and Piotrowski Systems, and generally posited to represent the thoughts or drives that are not well integrated into the cognitive framework. Klopfer, Ainsworth, Klopfer, and Holt (1954), Hertz (1948), and Piotrowski (1957) have suggested that *m* is probably associated with the experience of frustration, especially regarding interpersonal relations.

The pre-1970s literature concerning the *Y* variable is more extensive than for *m*, but also is

more contradictory. Some of the contradiction was created by the fact that each of the systematizers used different criteria and symbols for the coding of diffuse shading. Binder (1932) was the first to offer a detailed approach to the coding of achromatic and shading answers. Following his lead, each of the systematizers included a variety of scores to denote different types of achromatic and shading responses, but failed to agree on the criteria for most of them, including diffuse shading, although each considered it to be an important determinant in the test. Although most of the systematizers postulated that diffuse shading answers have some relation to anxiety, they have differed concerning its form and impact.

Beck (1945) suggested that diffuse shading responses reveal a painful "absence of action." Later, Beck and Molish (1967) expanded this explanation, postulating that diffuse shading signals a sense of paralysis. They speculated that when the answer is form dominated (*FY*), the experience might be regarded more favorably, because it serves as a stimulus to action. Conversely, they argued that the *YF* and pure *Y* type of responses are indicative of an inability to respond. Rapaport, Gill, and Schafer (1946) hypothesized that diffuse shading responses represent a form of anxiety of a magnitude that often supersedes other need states in forcing and/or directing behavior. Klopfer et al. (1954) postulated that diffuse shading answers represent a form of free floating anxiety. Both positions, Beck's diffuse shading-passivity hypothesis and the Rapaport diffuse shading-anxiety hypothesis, have been studied in many investigations and some support is available for each.

Prior to the 1970s, many investigations concerning inanimate movement and diffuse shading focused on only one of the two variables. McArthur and King (1954) found that a combination of *m* plus a preponderance of chromatic color responses differentiated unsuccessful college students, whereas Majumber and Roy (1962) reported a significant elevation in *m* among juvenile delinquents. Neel (1960), using models of motoric and ideational inhibition, found that either condition causes an elevation in *m* as compared with control subjects.

She interpreted her findings as evidence for tension and/or conflict created by the inability to integrate needs with behavior. Piotrowski and Schreiber (1952) found that *m* responses tend to disappear in the posttreatment records of patients who are judged as responding successfully to treatment.

Shalit (1965) was the first to report definitive findings concerning the relation of *m* to situational stress. He was able to collect retest Rorschachs from 20 Israeli seamen under the natural stress conditions of being on a relatively small ship during a severe storm condition. All had been tested previously, about one year earlier, when they entered the Israeli Navy. Shalit found that the retest frequencies for *M* and *FM* remained essentially the same, but the frequencies for *m* increased significantly. He interpreted this finding as related to the stressful condition created by the storm, postulating that the elevations in *m* reflect a sense of disruption and fear of disintegration of controls. The Shalit finding posed an obvious challenge for research concerning *m*. If *m* does correlate with a sense of disruption of controls under stress, the issue of helplessness or lack of control should be an important independent variable in any study designed to test the validity of his findings.

Exner and Walker (1973) used four examiners in a retest design with 20 inpatient depressives. In the baseline test, administered five to seven days after admission, 14 of the 20 had at least one *m* in their protocol ($M = 1.26$, $SD = 0.83$), and 17 of the 20 records included at least one diffuse shading response ($M = 1.73$, $SD = 1.46$). The first retest was administered by a different examiner one day before their first unilateral ECT, 12 to 15 days after admission. The first retest protocols included 16 that contained at least one *m*, and the mean for the group increased significantly ($M = 2.57$, $SD = 1.09$, $p < .05$). Eighteen of the 20 first retest records contained at least one diffuse shading answer, but the mean did not increase significantly ($M = 1.94$, $SD = 1.72$). A second retest, also by a different examiner, was done at discharge, 27 to 40 days after admission. Although the records were generally longer than either of the first two tests, only 6 of the 20 discharge

protocols contained m responses ($M = 0.39$, $SD = 0.88$), and only 11 of the 20 contained diffuse shading responses ($M = 0.91$, $SD = 1.01$).

Armbruster, Miller, and Exner (1974) used two examiners to test 20 Army paratroop trainees on one of their first three days of training. Each was retested by a different examiner on the day or evening before their first parachute jump. Three of the 20 participants had m responses in their first test ($M = 0.16$, $SD = 0.48$), whereas 12 produced at least one m in the retest ($M = 1.68$, $SD = 0.73$, $p < .01$). Nine of the baseline records contained diffuse shading answers ($M = 0.72$, $SD = 0.84$) as contrasted with 14 of the retest records ($M = 1.22$, $SD = 0.93$).

In another natural stress study, 25 elective surgery patients were tested 25 to 63 days before surgery by one of four examiners. They were retested the day before, or morning of, the surgery by a different examiner (Exner, Armbruster, Walker, & Cooper, 1975). Ten of the 25 baseline records included a total of 16 m answers. Nineteen of the retest records contained 41 m responses ($p < .02$). In addition, 13 of the baseline records contained 21 diffuse shading responses ($M = 1.0$, $SD = .74$). Twenty-two of the retest protocols contained a total of 56 diffuse shading answers ($M = 2.5$, $SD = .96$, $p < .01$). A second retest was administered during an interval of 60 to 70 days after discharge. Fourteen m responses appeared in eight of the 25 records, and only 16 Y determinants occurred among 10 of the protocols.

Exner (1978) noted that 56 patients entering long-term dynamically oriented psychotherapy average nearly two m and about one diffuse shading answers, which is not very different than for nonpatients. When retested by different examiners after approximately 9 to 12 months of treatment, the mean for m increased from 1.74 to 2.93 and the mean for $SumY$ increased from 1.08 to 2.37. The increases appeared mainly in the protocols of patients judged by their therapists to be encountering significant struggles and experiencing considerable distress. Campo (1977) studied 72 patients, each of whom had at least three m

answers in their Rorschachs, and concluded that elevations in m do not relate the severity of disturbance, but do coincide with severe distress experiences.

Buhler and LeFever (1947) were among the earliest to test Beck's shading-passivity postulate in their study of alcoholics. They reported a significantly greater use of diffuse shading among alcoholics. Eichler (1951) and Cox and Sarason (1954) both noted significant increases in the use of diffuse shading under an experimentally induced stress situation. Similarly, Levitt and Grosz (1960) obtained significantly more diffuse shading responses after anxiety had been induced hypnotically. Lebo, Toal, and Brick (1960) treated 12 of 24 high-anxiety subjects with CO₂ and found a significant decrease in diffuse shading answers as compared with the untreated group. Although these studies tend to support the shading-anxiety hypothesis, numerous works contradict the hypothesis.

Several studies have found no relationship between scores on the Manifest Anxiety Scale and diffuse shading answers (Goodstein, 1954; Holtzman, Iscoe, & Calvin, 1954; Goodstein & Goldberger, 1955; Levitt, 1957; Waller, 1960). Merolle (1999) found no relationship between scores on the State-Trait Anxiety Scale and the m , Y , or T variables. Schwartz and Kates (1957) used an experimentally induced stress model and found that stressed subjects gave significantly fewer diffuse shading answers than did controls. Berger (1953), Fisher (1958), and Schon and Bard (1958) each used designs in which the Rorschach was administered under "real life" stress situations and found no evidence that the diffuse shading was associated with the stressful situation. Neuringer (1965) suggested that anxiety manifestations are probably better judged by a constellation of variables rather than by one variable such as the Y -type answers. A similar position is suggested by Goldfried, Stricker, and Weiner (1971) in their review of Elizur's Rorschach scoring for anxiety which focuses mainly on verbalizations in the test.

Studies concerning the diffuse shading-passivity hypothesis are less numerous than those dealing

with the anxiety issue, but the findings are clearly more consistent. Klebanoff (1946) found that flyers experiencing "operational fatigue" give significantly greater numbers of diffuse shading answers. He also noted a tendency of these subjects toward withdrawal and passivity. Elstein (1965) found the diffuse shading is significantly related to passivity toward the environment. He noted that "high Y" subjects are more inhibited and resigned to their situation, and suggests that they attempt to seal themselves off from the world. Salmon, Arnold, and Collyer (1972) report the use of a factorial model to study various determinants, however, they grouped all responses to gray-black features as "shading." Nonetheless, they did find a striking correlation between "shading" and emotion and intellectual control, the composite of which could equal withdrawal behaviors.

Unfortunately, many laboratory studies have failed to differentiate types of anxiety, levels of stress tolerance, or degrees of helplessness/passivity. In other words, the issue of control, or the potential for loss of control, may confound some findings. For instance, Viglione and Exner (1983) used an unsolvable anagram design to produce frustration among a randomly selected half of a group of volunteer college students. They were able to demonstrate a significant elevation in state anxiety among the participants in the experimental group, but their Rorschachs did not differ significantly from those of the nonfrustrated control subjects, and neither group showed elevations for *m* or *SumY*, or the sum of the achromatic and shading variables. Conversely, McCowen, Fink, Galina, and Johnson (1992), used a variation of the Viglione and Exner design and reported increases in *m* under stress conditions, whether the stress is perceived as controllable or not, and increases in diffuse shading when the stress is perceived as uncontrollable.

As noted previously, some laboratory studies may be well designed with effective independent variables, but participants may remain largely in control even though they may experience some

frustration. Under more natural stress conditions, that option is not available. For example, in the Ridgeway and Exner (1980) study, described in the preceding chapter, 16 first year medical students were administered the Rorschach and the McClelland *NACH* shortly after beginning training, and again shortly before their first major examination in anatomy. Substantial increases were found for both *m* and *SumY* in the nine of the 16 retest records.

In another retest study, Exner, Thomas, Cohen, Ridgeway, and Cooper (1981) used five examiners to test 54 medical inpatients one or two days prior to discharge. One group was comprised of 27 males who had been hospitalized 13 to 17 days because of a myocardial infarction. Although recovered from the incident, these men would remain at some risk for at least a 90-day postdischarge interval. The control group consisted of 27 males recovering from orthopedic surgery. Their average length of hospitalization was 15 days. Although most remained in casts, no significant risk factor existed concerning their recovery or future health.

In the baseline test, 24 of the 27 cardiac patients gave a total of 58 *m* responses ($M = 2.15$, $SD = 1.01$), and 25 of the 27 gave a total of 69 diffuse shading answers ($M = 2.56$, $SD = 0.84$). Inanimate movement appeared in 20 of the 27 orthopedic records, totaling 26 *m* answers ($M = 1.31$, $SD = 0.67$, $p < .01$), while a total of 29 diffuse shading responses was given by 19 of the 27 control patients ($M = 0.70$, $SD = 0.54$, $p < .01$). Both groups were retested during an interval of 93 to 118 days after discharge, when the risk factor for the cardiac patients had declined substantially. The cardiac group gave a total of 22 *m* responses (19 protocols), as contrasted with 21 *m* responses (17 protocols) given by the orthopedic group. The cardiac group gave 25 diffuse shading responses (20 protocols), while the orthopedic group gave 21 diffuse shading responses (18 protocols). Clearly, the retest data are very similar for the two groups and both have frequencies for *m* and *SumY* that are similar to nonpatient data.

The impact of situational stress, as manifest in *m* and *SumY* responses, appears to vary depending on other psychological features. For instance, Gacono and Meloy (1991) studied two groups of antisocial personality disorder offenders differentiated as severe versus moderate psychopaths. They found a significantly higher frequency of diffuse shading answers in the latter group. Likewise, Weber, Meloy, and Gacono (1992) found a significantly greater frequency of diffuse shading answers in the protocols of inpatient dysthymic adolescents as compared with a group of inpatient adolescent conduct disorders.

REFERENCES

- Armbruster, G. L., Miller, A. S., & Exner, J. E. (1974). *Rorschach responses of parachute trainees at the beginning of training and shortly before their first jump*. Rorschach Workshops (Study No. 201, unpublished).
- Beck, S. J. (1945). *Rorschach's test II: A variety of personality pictures*. New York: Grune & Stratton.
- Beck, S. J., & Molish, H. B. (1967). *Rorschach's test II: A variety of personality pictures* (2nd ed.). New York: Grune & Stratton.
- Berger, D. (1953). The Rorschach as a measure of real life stress. *Journal of Consulting Psychology*, 17, 355-358.
- Binder, H. (1932). *Die Helldunkeldeutungen im psychodiagnostischem experiment von Rorschach*. Zurich, Switzerland: Urell Fussli.
- Buhler, C., & LeFever, D. (1947). A Rorschach study on the psychological characteristics of alcoholics. *Quarterly Journal of Studies on Alcoholism*, 8, 197-260.
- Campo, V. (1977). *On the meaning of the inanimate movement response*. Ninth International Rorschach Congress, Fribourg, Switzerland.
- Cox, F. N., & Sarason, S. B. (1954). Test anxiety and Rorschach performance. *Journal of Abnormal and Social Psychology*, 49, 371-377.
- Eichler, R. M. (1951). Experimental stress and alleged Rorschach indices of anxiety. *Journal of Abnormal and Social Psychology*, 46, 344-356.
- Elstein, A. S. (1965). Behavioral correlates of the Rorschach shading determinant. *Journal of Consulting Psychology*, 29, 231-236.
- Exner, J. E. (1978). *The Rorschach: Comprehensive System. Volume 2: Recent developments and advanced interpretation*. New York: Wiley.
- Exner, J. E., Armbruster, G. L., Walker, E. J., & Cooper, W. H. (1975). *Anticipation of elective surgery as manifest in Rorschach records*. Rorschach Workshops (Study No. 213, unpublished).
- Exner, J. E., Thomas, E. A., Cohen, J. B., Ridgeway, E. M., & Cooper, W. H. (1981). *Stress indices in the Rorschachs of patients recovering from myocardial infarctions*. Rorschach Workshops (Study No. 286, unpublished).
- Exner, J. E., & Walker, E. J. (1973). *Rorschach responses of depressed patients prior to ECT*. Rorschach Workshops (Study No. 197, unpublished).
- Fisher, R. L. (1958). The effects of a disturbing situation upon the stability of various projective tests. *Psychological Monographs*, 72, 1-23.
- Gacono, C. B., & Meloy, J. R. (1991). A Rorschach investigation of attachment and anxiety in antisocial personality disorder. *Journal of Nervous and Mental Diseases*, 179, 546-552.
- Goldfried, M. R., Stricker, G., & Weiner, I. B. (1971). *Rorschach handbook of clinical and research applications*. Englewood Cliffs, NJ: Prentice-Hall.
- Goodstein, L. D. (1954). Interrelationships among several measures of anxiety and hostility. *Journal of Consulting Psychology*, 18, 35-39.
- Goodstein, L. D., & Goldberger, L. (1955). Manifest anxiety and Rorschach performance in a chronic patient population. *Journal of Consulting Psychology*, 19, 339-344.
- Hertz, M. R. (1948). Suicidal configurations in Rorschach records. *Rorschach Research Exchange and Journal of Projective Techniques*, 12, 3-58.
- Holtzman, W. H., Iscoe, I., & Calvin, A. D. (1954). Rorschach color responses and manifest anxiety in college women. *Journal of Consulting Psychology*, 18, 317-324.
- Klebanoff, S. A. (1946). Rorschach study of operational fatigue in Army Air Force combat personnel. *Rorschach Research Exchange*, 9, 115-120.
- Klopfer, B., Ainsworth, M., Klopfer, W., & Holt, R. (1954). *Developments in the Rorschach technique. Vol. 1*. Yonkers-on-Hudson, NY: World Books.
- Lebo, D., Toal, R., & Brick, H. (1960). Rorschach performances in the amelioration and continuation of observable anxiety. *Journal of General Psychology*, 63, 75-80.

- Levitt, E. E. (1957). Alleged Rorschach anxiety indices in children. *Journal of Projective Techniques*, 21, 261-264.
- Levitt, E. E., & Grosz, H. L. (1960). A comparison of quantifiable Rorschach anxiety indicators in hypnotically induced anxiety and normal states. *Journal of Consulting Psychology*, 24, 31-34.
- Majumber, A. K., & Roy, A. B. (1962). Latent personality content of juvenile delinquents. *Journal of Psychological Research*, 1, 4-8.
- McArthur, C. C., & King, S. (1954). Rorschach configurations associated with college achievement. *Journal of Educational Psychology*, 45, 492-498.
- McCowan, W., Fink, A. D., Galina, H., & Johnson, J. (1992). Effects of laboratory-induced controllable and uncontrollable stress on Rorschach variables m and Y. *Journal of Personality Assessment*, 59, 564-573.
- Merolle, P. (1999). The validity of anxiety-related variables in Exner's Comprehensive System. *Dissertation Abstracts International*, 60, 3010.
- Neel, F. A. (1960). Inhibition and perception of movement on the Rorschach. *Journal of Consulting Psychology*, 24, 224-229.
- Neuringer, C. (1965). The Rorschach test as a research device for the identification, prediction and understanding of suicidal ideation and behavior. *Journal of Projective Techniques and Personality Assessment*, 29, 71-82.
- Piotrowski, Z. (1957). *Perceptanalysis*. New York: Macmillan.
- Piotrowski, Z., & Schreiber, M. (1952). Rorschach perceptanalytic measures of personality changes during and after intense psychoanalytically oriented psychotherapy. In G. Bychowski & J. L. Despert (Eds.), *Specialized techniques in psychotherapy*. New York: Basic Books.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Psychological diagnostic testing* (Vol. 2). Chicago: Yearbook Publishers.
- Ridgeway, E. M., & Exner, J. E. (1980). *Rorschach correlates of achievement needs in medical students under an arousal condition*. Rorschach Workshops (Study No. 274, unpublished).
- Salmon, P., Arnold, J. M., & Collyer, Y. M. (1972). What do the determinants determine: The internal validity of the Rorschach. *Journal of Personality Assessment*, 36, 33-38.
- Schon, M., & Bard, M. (1958). The effects of hypophysectomy on personality in women with metastatic breast cancer as revealed by the Rorschach Test. *Journal of Projective Techniques*, 22, 440-445.
- Schwartz, F., & Kates, S. L. (1957). Rorschach performance, anxiety level and stress. *Journal of Projective Techniques*, 21, 154-160.
- Shalit, B. (1965). Effects of environmental stimulation on the M, FM, and m responses in the Rorschach. *Journal of Projective Techniques and Personality Assessment*, 29, 228-231.
- Viglione, D. J., & Exner, J. E. (1983). The effects of state anxiety and limited social-evaluative stress on the Rorschach. *Journal of Personality Assessment*, 47, 150-154.
- Waller, P. F. (1960). The relationship between the Rorschach shading response and other indices of anxiety. *Journal of Projective Techniques*, 24, 211-216.
- Weber, C. A., Meloy, J. R., & Gacono, C. B. (1992). A Rorschach study of attachment and anxiety in inpatient conduct disordered and dysthymic adolescents. *Journal of Personality Assessment*, 58, 16-26.

CHAPTER 16

Affect

The emotions of people are complex and often difficult to understand. Feelings tend to permeate most psychological activity, intertwining with thinking, and influencing judgments, decisions, and most all manner of behaviors. Emotions contribute significantly to the creation of sets and attitudes and probably play a major role in the formation of most response styles. They serve as a valuable asset, but they also can become a serious liability. Some emotions are very subtle, but others can be very intense. Sometimes they are easy to manage and direct but, at other times, it is quite difficult to control the influence that they exert in forming or implementing behaviors.

Although there are numerous Rorschach variables that relate to emotion, they tend to be more indirect than might be desired. Thus, the inferential hypotheses drawn from the data must be integrated with care. The interpretive objective is to determine, to the extent possible, the role of emotion in the psychological organization and functioning of the person. That role varies considerably among people and several issues should be addressed when attempting to weave together a meaningful description of this very complex psychological feature.

RORSCHACH VARIABLES RELATED TO AFFECT

The variables involving the chromatic color, achromatic color, and shading are included in the

cluster pertaining to affect. Frequency data for space responses, color projection, and blends also contribute to the data set. As with other clusters, most postulates are formulated from the values for derived variables, which may or may not be useful when considered alone. For instance, when the *Afr* is studied independently, a preliminary hypothesis usually is formed that may be expanded or clarified when other findings in the cluster are considered.

Some derived variables, however, have no importance unless reviewed directly in relation to other variables. Usually, these variables are evaluated in some form of ratio. For example, the *WSumC* has no interpretive usefulness when studied alone, but it becomes critically important when cast in ratios such as the *EB*, or *SumC' : WSumC*. In other instances, the frequency data for a single variable such as *S*, *CP*, *Pure C*, or some other variable can serve as the cornerstone for an important interpretive postulate. Some of the variables that relate to affect also appear in other clusters, but they are addressed differently here. For instance, as illustrated in Chapter 15, the data concerning *T*, *Pure C*, and the number and type of blends are relevant when evaluating the array of variables concerning situational stress. In that array, the data are used to discern some of the effects of the stress. When studying affect, the same data are used in a perspective that attempts to focus on a broader picture of emotional functioning.

Presearch Issues

There are several major questions that the interpretation should address: (1) Is emotion a core element in decision making and the behavioral implementation of those decisions, or are feelings more peripheral when coping or decision making occurs? (2) Is there any evidence of an unusual frequency of negative emotions? (3) Is the person usually willing to process emotional stimuli, or is there any evidence to suggest that he or she is unusually defensive about emotions? (4) Are feelings controlled easily and effectively? (5) Do feelings create unusual sets toward the environment? (6) Is the individual often confused by his or her feelings? Data for the variables concerning affect, selected from three protocols, Cases 6, 7, and 8, will be used to illustrate the steps in the interpretive routine.

Case 6

This 30-year-old single female was referred for evaluation by a psychologist with whom she is entering outpatient treatment. She is described as an attractive woman who seemed friendly and open during the pretesting interview. She says that she has been feeling "out of sorts" for at least a year. During the past six to eight months, she often has felt very tense and anxious "for no reason" and these experiences interfere with her work. She denies being sad or depressed, "It's not that, it's something else." She reports that her physical health is good and she exercises daily. She has no problems with her appetite or sleep. She is the youngest of three children (brother age 41, sister age 33). Her father, age 68, has been successful in business and

recently retired due to a heart condition. Her mother, age 64 is a housewife. Her parents and siblings are all college graduates.

After graduating from college she entered law school, obtaining a JD degree at age 25. After passing the state bar examination, she accepted a position as an associate in the firm at which she is currently employed in a section specializing in copyrights and patents. She states that she enjoys her work and feels strongly committed to her career. She believes that her work is well regarded, noting that she has been approached twice by other firms about accepting positions with them.

She reports that her social life has been varied. Her first sexual experience occurred during her first year in college and, during her junior and senior years, she became quite involved with a classmate, but her intention to go to law school caused that relationship to wane rapidly after their graduation. She says that during law school, and during the first two years after graduating, she maintained an active social life that included numerous sexual experiences, but says that she "became bored with the routine." Three years ago she began an affair with a married colleague, which terminated after a year when he accepted a position in another city. She admits, "I kept fooling myself that he would leave his wife, but I knew that wasn't true." She states that during the past two years she has been active socially, but that most of her contacts with men have been superficial. She admits to considerable rumination about her future and, although she is committed to her career, she feels that there may be something wrong with her regarding her inability to create and maintain a lengthy relationship. She says that she would like to marry and "possibly" have children. She emphasizes that her current symptoms seem to have

Case 6. Affect-Related Data for a 30-Year-Old Female.

EB	= 8:3.0		EBPer	= 2.7	Blends
eb	= 3:6	L = 0.31	FC:CF+C	= 4:1	M.CF.C'F = 1
DEPI	= 5	CDI = 1	Pure C	= 0	M.FC.FD = 1
					M.m = 1
C' = 4	T = 1		SumC':SumC	= 4:3.5	FD.FC' = 1
V = 0	Y = 1		Afr	= 0.50	FM.FD = 1
					FM.Fr = 1
Intellect	= 6	CP = 0	S = 2 (S to I,II,III = 1)		
Blends:R	= 6:21		Col-Shad Bl	= 1	
m + y Bl	= 1		Shading Bl	= 0	

the potential to interfere with her career and she wants to ensure that does not happen. It is for this reason that she has decided to explore the possibility of psychotherapy. The referral asked for a personality description, questions the sources of tension and anxiety, and asks about any evidence of depression.

Case 7

This 28-year-old male was a reluctant self-referral, having been encouraged to seek treatment by his older brother and his girlfriend. He says that he has been depressed "off and on" for several years. He says that it has caused difficulty for him in his work and also led to an abuse of alcohol. He reports that he has tried to contend with the depression by getting involved in more social activities, but says that this increased activity generally makes him more depressed. He is the second of three children (older brother, age 33, sister, age 24). His father, age 60, is an executive for a fabric manufacturer. His mother, age 58, is a housewife. He says his father disapproves of him because he has not lived up to his potential. He states that his mother tends to dote on him, which makes him uncomfortable. His relationship with his brother is close, but he says that he does not get along with his sister. Both siblings are married.

After completing three years of college, he decided to take a job as the assistant manager of a restaurant that had been opened by a friend. He worked there for three years, but resigned because he did not like dealing with people, "I just got tired of it." He now works for a landscaping firm but admits that it is a "dead-end" job. His parents have encouraged him to return to college but he feels ambivalent about doing so.

During the past two years, he has been living with a 27-year-old woman who has a well paying job. He says, "she is my best friend," but adds that she sometimes

complains that he is not more ambitious. He admits that he usually drinks heavily on the weekends and often becomes verbally abusive to her. He says that he loses his temper easily when drinking. He says he tried various drugs in college but claims he has not used any drugs during the past four or five years, "that's not a problem, it's the depression." He says that he should be in therapy because of his drinking and because he needs to "do something useful with my life." The referral asks about his "easy" loss of temper, whether findings confirm the presence of depression, and recommendations about treatment objectives and type of treatment.

Case 8

This 33-year-old married female was referred for evaluation by a psychiatrist that she has been seeing for two months. She has been experiencing frequent (about once per week) bouts of depression for about six months and was prescribed an antidepressant, but "it doesn't seem to help at all." She describes the episodes as lasting for two or three days. She says, "I've always been a jumpy person, kind of anxious I guess, but I've never been depressed like this." She says during the episodes she feels lethargic and detached from everything, and reports frequent difficulty sleeping. She says that she has been very anxious about the referral, "I feel like a nut."

She is described as being moderately attractive, but somewhat unkempt, conveying a disorganized appearance. She is the second of three children. Her father, age 60, is a high school teacher. Her mother, age 60, is a housewife. Her brother, age 34, is married and works in oil exploration. Her sister, age 26, is married and has two children. She reports a normal developmental history. She entered college at age 18 with the intention of majoring in art education. During her second

Case 7. Affect-Related Data for a 28-Year-Old Male.

EB	= 4:5.0		EBPer	= NA	Blends
eb	= 5:4	L = 1.30	FC:CF+C	= 1:4	M.CF.FC' = 1
DEPI	= 5	CDI = 5	Pure C	= 1	M.FC = 1
					m.CF = 1
C' = 1	T = 2		SumC':SumC	= 1:5.0	FM.FC = 1
V = 0	Y = 1		Afr	= 0.67	FM.FT = 1
Intellect = 2		CP = 0	S = 4 (S to I,II,III = 2)		
Blends:R = 5:24			Col-Shad Bl	= 1	
m + y Bl = 1			Shading Bl	= 0	

Case 8. Affect-Related Data for a 33-Year-Old Female.

EB	= 3:7.0		EBPer	= 2.3	Blends	
eb	= 7:10	L = 0.18	FC:CF+C	= 3:4	C.C'.m	= 1
DEPI	= 6	CDI = 1	Pure C	= 3	CF.m	= 1
					M.FY	= 1
C' = 1	T = 4		SumC':SumC	= 1:7.0	FM.FT.FY	= 1
V = 1	Y = 4		Afr	= 0.37	FM.FV	= 1
					FM.FY	= 1
Intellect	= 10	CP = 0	S = 4 (S to I,II,III = 4)		m.FC	= 1
Blends:R	= 7:26		Col-Shad BI	= 1		
m + y BI	= 4		Shading BI	= 1		

year, she became very interested in photography and dropped out in the middle of her junior year to accept a position as a commercial photographer for a weekly magazine.

She dated frequently during high school and had her first sexual experience at age 17. She dated several young men in college but notes that she did not become "deeply" involved with anyone. She met her husband while working at the magazine. At that time, he worked in the sales department. She says they dated for about one year before marrying when she was age 22. She reports that they have similar interests and enjoy many of the same activities. She became pregnant about six months after being married, but had a miscarriage during her fourth month of pregnancy. She has been told that it is highly unlikely that she will be able to have children, and she and her husband have discussed adopting but have not made any decision about that. She denies the likelihood that this relates to her depression.

She says that the depressive episodes interfere with her work and, recently, she has asked to be temporarily placed on a half-time schedule. Her husband, age 35, now works as a salesman for a television network. His work requires him to be away from home one or two days each week, and occasionally for longer periods. She believes that some of her problems can be attributed to the fact that her husband is away from home so much. The referral asks for clarification about the depression.

INTERPRETIVE ROUTINE

The interpretation begins with a review of the Depression and Coping Deficit Indices. Actually, the DEPI and CDI are not a part of the empirically established data set related directly to affect. The

failure of these two indices to load positively into the cluster concerning emotion is apparently because both consist of a heterogeneous mix of affective, cognitive, self-perception, and interpersonal variables.

The DEPI includes 14 variables, each of which is tested against a criterion, and ultimately yield DEPI scores from zero to seven. Five of the 14 relate directly to affect ($SumV > 0$, $Col-Shad BI > 0$, $S > 2$, $Sum Shad > Sum FM + m$, and $SumC' > 2$). Six others are related to cognitive features ($FD > 2$, $Egocentricity Index > .44$ [adjusted for age] and $Fr + rF = 0$, $Egocentricity Index < .33$ [adjusted for age], $Afr < .46$ [adjusted for age], $MOR > 2$, and $Intellectualization Index (2AB + Art + Ay) > 4$). Two of the remaining three concern interpersonal relations ($COP < 2$ and $Isolation Index > .24$) while the third ($Blends < 4$) is related to psychological complexity.

The CDI consists of 11 variables that are used in criterion tests yielding a CDI score of zero to five. Six of the 11 variables relate mainly to interpersonal perception or behavior ($Cop < 2$, $AG < 2$, $p > a + 1$, $Pure H < 2$, $Isolation Index > .24$, $Fd > 0$). Three of the other five variables are related to affect ($WSumC < 2.5$; $Afr < .46$ and $SumT > 1$). The remaining two ($EA < 6.0$ and $Adj D < 0$) pertain to resources and controls.

Even though both indices are formed by a mixture of heterogeneous variables, both must always be reviewed when issues of affect are at hand. When the DEPI, or both the DEPI and CDI are positive, the finding forms a framework within which the data of the affect cluster are evaluated.

Step 1: DEPI and CDI

If the DEPI has a positive value, that is, 5, 6, or 7, and the CDI is *not* positive (a value of less than 4), one of two postulates will create a basis against which other findings concerning affect are studied. Conversely, if the DEPI has a value of 5, 6, or 7 and the CDI is positive (a value of 4 or 5), either of two different postulates forms the basis against which other findings concerning affect are reviewed.

Potential Finding 1: When the value for DEPI is 6 or 7 and the value of the CDI is less than 4, it is reasonable to assume that a significant and potentially disabling affective problem exists. Typically, people with DEPI values of 6 or 7 complain of distress and/or depression and reports of behavioral dysfunction are common. This finding should be appraised carefully when issues of diagnosis and treatment are considered.

Case 8 Finding Positive

The DEPI is 6. This is not surprising in light of her presenting symptoms: bouts of depression, lethargy,

and difficulties sleeping. The finding supports the notion that a serious affective problem exists.

Potential Finding 2: If the value for DEPI is 5 and the CDI value is less than 4, it signifies that the personality organization of the subject includes a potential for frequent experiences of affective disruption. People who have DEPI values of 5 often complain about recurring bouts of depression, moodiness, tension, or anxiety, however, many *do not* report periodic episodes involving negative emotional experiences. Even without reports of negative emotional experiences, the interpreter should not casually discard the positive DEPI finding as unimportant. It does reflect a potential for emotional disruption, and warrants careful study.

Case 6 Finding Positive

The DEPI value is 5, suggesting a potential for frequent experiences of affective disruption. It is consistent with her complaints of tension and anxiety. The finding should not be interpreted to indicate the presence of an underlying depression, but that possibility should not be discarded.

Case 8. Affect-Related Data for a 33-Year-Old Female.

EB	= 3:7.0		EBPer	= 2.3	Blends
eb	= 7:10	L = 0.18	FC:CF+C	= 3:4	C.C'.m = 1
DEPI	= 6	CDI = 1	Pure C	= 3	CF.m = 1
					M.FY = 1
C' = 1	T = 4		SumC':SumC	= 1:7.0	FM.FT.FY = 1
V = 1	Y = 4		Afr	= 0.37	FM.FV = 1
					FM.FY = 1
Intellect = 10		CP = 0	S = 4 (S to I,II,III = 4)		m.FC = 1
Blends:R = 7:26			Col-Shad Bl	= 1	
m + y Bl = 4			Shading Bl	= 1	

Case 6. Affect-Related Data for a 30-Year-Old Female.

EB	= 8:3.0		EBPer	= 2.7	Blends
eb	= 3:6	L = 0.31	FC:CF+C	= 4:1	M.CF.C'F = 1
DEPI	= 5	CDI = 1	Pure C	= 0	M.FC.FD = 1
					M.m = 1
C' = 4	T = 1		SumC':SumC	= 4:3.5	FD.FC' = 1
V = 0	Y = 1		Afr	= 0.50	FM.FD = 1
					FM.Fr = 1
Intellect = 6		CP = 0	S = 2 (S to I,II,III = 1)		
Blends:R = 6:21			Col-Shad Bl	= 1	
m + y Bl = 1			Shading Bl	= 0	

Potential Finding 3: If the DEPI value is 6 or 7, and the CDI value is 4 or 5, a state of emotional disarray is likely to exist. However, the affective problem usually is secondary to a more pervasive difficulty in creating and maintaining effective and rewarding interpersonal relationships. In fact, the DEPI value may reflect some exaggeration of the affective problem. This is because two variables related to interpersonal behavior ($COP < 2$ and *Isolation Index* $> .24$) appear in both the DEPI and CDI. As a result, a positive CDI will almost always cause one point to be added to the DEPI score. The DEPI value should not be ignored but it should not necessarily be interpreted as indicating a *chronic* affective problem.

People who are positive on both indices tend to flounder in their social environment because their relations with others usually are superficial, tenuous, and unrewarding. Thus, episodes of disappointment, distress, or even despair are common, and the emotional disarray that occurs during these episodes often is quite similar to that found in cases of chronic depression. However, these people tend to be psychologically different than the classic affective disorder because their emotions tend to change more often as their support systems strengthen or weaken. The formulation of treatment plans and objectives should be very different for these people than for those who have major affective disorders. Social adaptability should be a primary treatment target and caution should be exercised regarding the use of antidepressant medication.

Potential Finding 4: If the DEPI value is 5 and the CDI has a value of 4 or 5, caution should be exercised when interpreting the DEPI value. This is because of the linkage between the DEPI and the CDI when both are positive. Therefore, rather than suggesting that the personality organization includes a marked potential for experiences of emotional disruption, it is more realistic to hypothesize that there is a proclivity for affective problems because of difficulties in social adjustment.

Case 7 Finding Positive

The DEPI value is 5 and the CDI value is 5, suggesting that he is prone to affective problems because of difficulties in social adjustment. His report of depression is not surprising as he probably does become distressed frequently and, as is common among those who tend to feel socially inept or ineffective, translates those feelings as depression. However, usually they are quite different than those experienced by persons with dysthymia or major affective disturbances.

Step 2: EB and Lambda

The *EB* provides information about the relation of emotion to the psychology of the person. This is especially important if the *EB* data indicate the presence of a distinct coping style. A coping style is identified if the value on one side of the *EB* exceeds the other by two or more points when *EA* is 10 or less, or more than two points when *EA* is greater than 10. An *introversive* style is indicated when the value is higher on the left side of the *EB*, whereas a higher right-side value signals

Case 7. Affect-Related Data for a 28-Year-Old Male.

EB	= 4:5.0		EBPer	= NA	Blends
eb	= 5:4	L = 1.30	FC:CF+C	= 1:4	M.CF.FC' = 1
DEPI	= 5	CDI = 5	Pure C	= 1	M.FC = 1
					m.CF = 1
C' = 1	T = 2		SumC':SumC	= 1:5.0	FM.FC = 1
V = 0	Y = 1		Afr	= 0.67	FM.FT = 1
Intellect = 2	CP = 0		S = 4 (S to I,II,III = 2)		
Blends:R = 5:24			Col-Shad Bl	= 1	
m + y Bl = 1			Shading Bl	= 0	

that the person is *extratensive*. When neither value is markedly different than the other, no distinctive style is indicated and the person is referred to as an *ambitent*.

Introversive people like to think things through before making decisions. They prefer to keep their emotions aside during those times and tend to delay initiating behaviors until they have had time to consider various options. Extratensive individuals are more intuitive. They are prone to use their feelings more directly in decision making by merging them with their thinking. They seem very comfortable with actually trying out various approaches when making decisions or solving problems. Both of these styles are common among adults and older adolescents and there is no reason to suspect that one is preferable to the other. They are simply very different psychological approaches used to cope with the demands of everyday living, and either can be used quite effectively.

Ambitents, on the other hand, do not show the consistency of either the introversive or extratensive styles in their decision making or problem solving. On the contrary, they are quite inconsistent and the role played by their feelings also varies considerably in these operations. Ambitents tend to be less efficient than either introversives or extratensives but this does not necessarily mean that they have a predisposition to maladjustment.

Although the interpretation of the *EB* may seem rather straightforward, there are two very important cautions about which the interpreter must be aware. First, the interpretation of the data for the *EB* becomes more complex if a high *Lambda* avoidant style is also present. It tends to supercede some of the features of either the introversive or extratensive style. This is because the avoidant style includes a marked disposition to simplify complexity or ambiguity by disregarding or even denying some aspects of a stimulus event. This can include emotional experiences, both internal and external. Therefore, the *Lambda* value also must be considered whenever the *EB* is reviewed to determine if the *EB* style reflects the

distinctive coping orientation, or whether it may be modified by the presence of the more pervasive avoidant style.

Second, before assuming that the data for the *EB* identify the presence or absence of a distinctive coping style, the interpreter must consider *two important exceptions* to the general rule for reaching such a conclusion. Both involve records in which one value in the *EB* is zero and both impact the interpretive validity of the data.

Exception 1: The first exception concerns protocols that have an *EA* less than 4.0. Many of these records have a zero on either the left or right side of the *EB*, such as 0:2.0, 0:3.5, 2:0, 3:0, but some will have values greater than zero on both sides, such as 2:1, 1:2.5.

Potential Finding 1: If the criterion described in Exception 1 is positive, the data for the *EB* are too sparse to assure validity in differentiating a distinctive coping style. Thus, the data for the *EB* should *not* be regarded as identifying introversive, ambitent, or extratensive styles when considering affective features. Usually, these records will have a *Lambda* value greater than 0.99, indicating the presence of an avoidant style, which is discussed more extensively later in this chapter. Proceed to Step 4.

Exception 2: The second exception concerns protocols that have a zero on the left side of the *EB* and a value greater than 3.5 on the right side, such as 0:4.0, 0:6.5, etc., and protocols that have a zero on the right side and a value of at least 3 on the left side, such as 3:0, 5:0, etc. Values such as these appear to reflect an introversive or extratensive style but that may not be true because of unusual emotional circumstances. As such, it *should not* be casually assumed that the coping style indicated does exist persistently.

Potential Finding 2: When the criteria for Exception 2 are positive and the zero value is on the left side of the *EB* it indicates that the person is being overwhelmed or flooded by

emotion. If this condition is noted, the interpreter probably should avoid any assumptions about a distinctive coping style and use the data from the *EB* to focus on a description of the current affective state of the individual. It is a condition in which very strong emotions interfere markedly with thinking and are especially impairing to the abilities necessary for attention and concentration during decision making. The intensity of these emotions is quite disruptive and, typically, ideational and/or behavioral impulsiveness occurs.

Ordinarily, emotional flooding is a transient state that develops and is sustained during a period in which the individual is not able to contend effectively with unusually powerful emotions. When flooding is present, all of the data concerning affect must be addressed cautiously and in context. The data for the variables related to affect can be a useful source of information about the current affective condition of the person. However, it is often difficult to differentiate transient characteristics from trait-like features. Proceed to Step 4.

Potential Finding 3: When the criteria for Exception 2 are positive and the zero value is on the right side of the *EB*, it signals a massive containment or constriction of affect. When this condition is noted, the interpreter probably should avoid any assumptions about a distinctive coping style and use the data from the *EB* to focus on a description of the current affective state of the individual. It is an unusual circumstance in which the individual commits considerable energy to ensure that emotions are stringently concealed and controlled. This sort of extreme constriction runs contrary to the human condition and is a state that rarely can be maintained over lengthy periods of time. It might be likened to emotionally holding your breath. People simply cannot constrain or suppress the expression of all feelings easily for more than brief periods. Even during brief periods of massive emotional constraint, people tend to become very uncomfortable.

If the constraint persists over a longer period of time, some form of release or displacement of the affect must occur. If episodes of deliberate release or displacement do not occur, the individual is likely to become overwhelmed by the increasing intensity of affect and thrust into a *labile* state. Lability is a circumstance in which the emotions of the person dominate most all psychological functions. They force decisions and propel the individual into behaviors with the objective of bringing relief regardless of the realities of the situation. When massive constriction is noted, all of the data concerning affect must be addressed cautiously and in context. As noted earlier, the variables related to affect can provide information about the current affective condition of the person, but it is often difficult to differentiate transient characteristics from more trait-like features. Proceed to Step 4.

If none of the criteria in Exceptions 1 and 2 are positive, any of several interpretive propositions may be derived from the data for the *EB* and *Lambda*. They are itemized next, beginning with Potential Finding 4.

Potential Finding 4: If the *EB* indicates the presence of an extratensive coping style and the value for *Lambda* is less than 1.0, it can be assumed that, ordinarily, the person tends to intermingle feelings with thinking during problem-solving or decision-making activities. People such as this are prone to use and be influenced by emotion and, generally, are disposed to test out postulates and assumptions through trial-and-error behaviors. In that trial-and-error behavior is a routine for extratensive people, they are inclined to become more tolerant and less concerned when problem-solving errors occur. On the other hand, the emotional impact of chronic failure is often more intense than is usually the case for the nonextratensive person. People with this style also are more prone to display feelings openly and tend to be less concerned about carefully modulating or controlling those displays. Proceed to Step 3.

Case 8. Affect-Related Data for a 33-Year-Old Female.

EB	= 3:7.0		EBPer	= 2.3	Blends	
eb	= 7:10	L = 0.18	FC:CF+C	= 3:4	C.C'.m	= 1
DEPI	= 6	CDI = 1	Pure C	= 3	CF.m	= 1
					M.FY	= 1
C' = 1	T = 4		SumC':SumC	= 1:7.0	FM.FT.FY	= 1
V = 1	Y = 4		Afr	= 0.37	FM.FV	= 1
					FM.FY	= 1
					m.FC	= 1
Intellect	= 10	CP = 0	S = 4 (S to I,II,III = 4)			
Blends:R	= 7:26		Col-Shad Bl	= 1		
m + y Bl	= 4		Shading Bl	= 1		

Case 8 Finding Positive

The *EB* is 3:7.0 and the *Lambda* value is 0.18. An extratensive style is present, indicating that her feelings usually play an important role in her thinking and often prompt trial-and-error approaches to decision making. She is inclined to display her emotions openly and usually will not be very concerned about maintaining close controls over those displays.

Potential Finding 5: If the *EB* indicates the presence of an extratensive coping style and the value for *Lambda* is greater than 0.99, an *avoidant-extratensive* style exists. It is reasonable to assume that, ordinarily, the person is more prone to use and be influenced by emotion than others, and generally prefers to test out postulates and assumptions through trial-and-error behaviors. However, the presence of the avoidant style increases the likelihood that complex emotional experiences will not be differentiated very thoroughly. In those situations, when the person intermingles feelings with thinking during decision making, the feelings may be afforded *either* much more or much less influence than appropriate for the situation. In either circumstance, the resulting behavior may be less effective.

For example, it was noted earlier that extratensive people use trial-and-error behavior somewhat routinely and usually are more tolerant and less concerned when problem-solving errors occur. When an avoidant style is also present, this tolerance and lack of concern can be excessive, creating a lackadaisical approach

to decision making that can perpetuate ineffective behaviors. Similarly, extratensives are more inclined to display feelings openly and are less concerned about modulating or controlling those displays. When an avoidant-extratensive style is present, this inclination often becomes exaggerated because of the tendency to disregard complexity and keep things simple. In other words, avoidant-extratensive people often can become negligent about controlling emotional displays and may seem to be impulsive at times, even though that may not be the case. Proceed to Step 3.

Potential Finding 6: If the *EB* indicates an introversive style and the value for *Lambda* is less than 1.0, it can be assumed that the person usually prefers to keep feelings at a more peripheral level during problem solving and decision making. They avoid trial-and-error behaviors whenever possible and rely more on internal evaluations rather than external feedback in formulating judgments. They are prone to be less tolerant of problem-solving errors than nonintroversive people and, because of this, usually exercise more caution in decision making than do others. While they are willing to display feelings openly, they also are likely to be more concerned about modulating or controlling those displays. Proceed to Step 3.

Case 6 Finding Positive

The *EB* is 8:3.0 and the *Lambda* value is 0.31. This signals the presence of an introversive style. She is an ideationally oriented person who prefers to keep

Case 6. Affect-Related Data for a 30-Year-Old Female.

EB	= 8:3.0		EBPer	= 2.7	Blends
eb	= 3:6	L = 0.31	FC:CF+C	= 4:1	M.CF.C'F = 1
DEPI	= 5	CDI = 1	Pure C	= 0	M.FC.FD = 1
					M.m = 1
C' = 4	T = 1		SumC':SumC	= 4:3.5	FD.FC' = 1
V = 0	Y = 1		Afr	= 0.50	FM.FD = 1
					FM.Fr = 1
Intellect	= 6	CP = 0	S = 2 (S to I,II,III = 1)		
Blends:R	= 6:21		Col-Shad Bl	= 1	
m + y Bl	= 1		Shading Bl	= 0	

her feelings aside when making decisions. Usually, she avoids trial-and-error approaches to problem solving. Although willing to display her feelings, she usually will be concerned that they are adequately controlled.

Potential Finding 7: If the *EB* indicates an introversive style and the value for *Lambda* is greater than 0.99, an *avoidant-introversive* style exists. It can be assumed that the person usually is disposed to keep feelings at a more peripheral level during problem solving and decision making. However, presence of the avoidant style can reduce the overall effectiveness of this ideational orientation. For example, introversives usually avoid trial-and-error behaviors and rely more on internal evaluations rather than external feedback when making decisions. Thinking things through requires patience and reasoning, a process that can easily conflict with an orientation to keep things simple and uncomplicated.

If such a conflict occurs, the avoidant style usually will override the introversive orientation and lead to more simplistic, less thorough forms of thinking. This increases the possibility of flawed judgments. Likewise, introversives usually exercise more caution in decision making than do others. The avoidant-introversive, however, may often sacrifice caution in favor of more simple solutions, including those involving emotion. For instance, introversives are inclined to be concerned about modulating emotional displays and are diligent about selecting ways of

expressing feelings. The avoidant-introversive sometimes finds such an effort is too complicated and, instead, tends to overcontrol emotional displays or avoid them altogether.

Potential Finding 8: If the *EB* fails to indicate an introversive or extratensive coping style and the *Lambda* value is less than 1.0, the person is identified as an *ambitent*. Ambitents are people who have not developed a consistent approach to problem solving or decision making. One result of this is that the emotions of the ambitent tend to be inconsistent in terms of their impact on thinking, problem-solving, and decision-making behaviors. In one instance, the ambitent's thinking may be strongly influenced by feelings, somewhat like the extratensive. In a second instance, even though similar to the first, emotions may be pushed aside and play only a peripheral role, more like the style of the introversive.

The lack of consistency in the use of feelings frequently causes ambitents to become confused by them. As a result, feelings may become overly influential in thinking or, conversely, not afforded adequate consideration when decisions are made. This lack of consistency also can lead to erratic forms of emotional display. In some instances, the display will be closely modulated while in similar situations the display may be less well controlled and much more intense. Proceed to Step 4.

Potential Finding 9: If the *EB* does not indicate an introversive or extratensive coping

Case 7. Affect-Related Data for a 28-Year-Old Male.

EB	= 4:5.0		EBPer	= NA	Blends
eb	= 5:4	L = 1.30	FC:CF+C	= 1:4	M.CF.FC' = 1
DEPI	= 5	CDI = 5	Pure C	= 1	M.FC = 1
					m.CF = 1
C' = 1	T = 2		SumC':SumC	= 1:5.0	FM.FC = 1
V = 0	Y = 1		Afr	= 0.67	FM.FT = 1
Intellect	= 2	CP = 0	S = 4 (S to I,II,III = 2)		
Blends:R	= 5:24		Col-Shad Bl	= 1	
m + y Bl	= 1		Shading Bl	= 0	

style and the *Lambda* value is greater than 0.99, the person is identified as an *avoidant-ambitent*. The avoidant tendency to simplify is the dominant orientation, but because there is no secondary introversive or extratensive orientation, it does not necessarily manifest in a more consistent manner as is the case with the avoidant-extratensive or avoidant-introversive. Instead, the avoidant orientation is more pervasive and, typically, will be invoked in relation to the extent that the person perceives the situation as being complex or ambiguous. Thus, the frequency of incidents in which emotions are less well modulated or overly constricted, or in which thinking is less sophisticated, are likely to be much greater than for the ambitent who does not have an avoidant style.

As might be expected, this is a common feature among young children. They are inconsistent and they do have trouble handling complexity or ambiguity. Fortunately, the environment is usually quite tolerant and forgiving of the emotional and ideational blunders that they make. However, as the person becomes older, that tolerance begins to wane. Thus, the older adolescent or adult avoidant-ambitent is more vulnerable to adjustment problems because the disposition to avoid complexity and the inconsistent manner in which emotions are handled seldom yield behaviors that are adaptive and effective in a complex environment for lengthy periods. Proceed to Step 4.

Case 7 Finding Positive

The *EB* of 4:5.0 and the *Lambda* value of 1.30 signify an avoidant-ambitent. He has a very marked disposition to simplify complexity and ambiguity by ignoring or denying its presence. He is probably very inconsistent in his approach to solving problems or making decisions. This lack of consistency is also likely to affect the manner by which he handles emotions. At times, they may be over-controlled while in similar instances they may not be controlled appropriately for the situation.

Step 3: EBPer

When the *EB* indicates either an introversive or extratensive style (as do Cases 6 and 8), but *excluding* cases in which the *Lambda* is greater than 0.99 (avoidant-introversive and avoidant-extratensive), the *EBPer* should be reviewed to determine if the style is *pervasive* when coping with problem-solving or decision-making situations. The result affords a rough estimate regarding the dominance of the style in coping activity. The result is not a linear estimate of style pervasiveness, but can be used in a categorical (yes or no) predictive model. The presence of a pervasive style is not necessarily a liability but does indicate the likelihood of less flexibility in coping and decision-making activities.

Potential Finding 1: If the subject is extratensive and the value for *EBPer* is less than 2.5, it can be postulated that the subject is

prone to mix feelings with thinking *much of the time* when coping is required. However, the person is somewhat flexible in the use of the extratensive style and instances will occur in which feelings are put aside in favor of a more clearly ideational approach. Proceed to Step 4.

Case 8 Finding Positive

She is extratensive, and the *EBPer* is 2.3. This suggests that she is somewhat flexible and, at times, will identify instances in which it seems better to put aside her routinely intuitive approach to decision making in favor of a more ideational approach.

Potential Finding 2: If the subject is extratensive and the value for *EBPer* is 2.5 or higher, it should be assumed that very little decision making occurs that is not markedly influenced by emotion. The lack of flexibility in the use of the extratensive style can become a liability in situations in which delay and thoughtfulness may be a much more effective tactic than an intuitive trial-and-error approach. When a pervasive extratensive style is present, the individual usually is somewhat less concerned about modulating displays of emotion. Proceed to Step 4.

Potential Finding 3: If the person is introversive and the value for *EBPer* is less than 2.5, it should be postulated that although he or she typically uses an ideational style involving delay while keeping feelings in abeyance before reaching a decision, instances will often occur in which feelings are permitted to merge more directly with thinking and contribute significantly to decisions.

Potential Finding 4: If the person is introversive and the value for *EBPer* is 2.5 or more, it is reasonable to assume that in most instances, emotions will play a very limited role in decision-making activity. It is also likely that most emotional displays will be closely modulated and more intuitive trial-and-error approaches to problem solving or decision making will be avoided, even though such an

approach might be much more effective. Proceed to Step 4.

Case 6 Finding Positive

The *EB* of 8:3.0 and *EBPer* value of 2.7 indicates that she does have a pervasive introversive style. Her consistent approach to decision making involves a delay of action until she can consider all obvious possibilities. When doing so she prefers to keep her feelings apart from her thinking as much as possible and avoids trial-and-error approaches to problem solving even though such an approach might be obviously preferable for some situations. Usually, she will attempt to keep her emotional displays closely controlled.

Step 4: Right Side *eb* Value

This step involves a review of the value in the right side of the *eb* and the variables related to it to ascertain if some unusual distress experiences are occurring. Typically, the right-side *eb* value will range from between 2 and 5 and will be less than the left-side value.

When the right-side value of the *eb* is higher, it usually signals the presence of distress or some other sort of emotional discomfort. Exceptions to this interpretation may exist in those cases in which the left-side value is less than two. In those instances, the values for the variables related to the right side of the *eb* should be studied carefully to determine if there is any unusual level of discomfort. As noted in Chapters 14 and 15, those values are also important even if the left-side value of *eb* is greater, as any or all may indicate the presence of some unexpected negative affective experience.

Potential Finding 1: When the value of the left side of the *eb* is greater than the right-side value, and *SumT* does not exceed 1, *SumC* does not exceed 2, *SumV* does not exceed 0, and *SumY* does not exceed 2, no specific hypothesis is warranted. Proceed to Step 5.

Potential Finding 2: When the value for the left side of the *eb* is greater than the right side,

but unexpected values exist for *SumT*, *SumC'*, *SumV*, or *SumY*, a hypothesis concerning experienced discomfort should be formulated. As noted in Chapter 15, when the *SumY* is substantial, usually more than two, it typically signifies negative feelings associated with a sense of helplessness. Likewise, the *T* and *V* variables can be related to situational stresses, but they also may be associated with more persistent experiences of negative emotion.

If the value for *SumT* is greater than one, and there is no evidence of recent emotional loss, it probably signifies a chronic feeling of loneliness or emotional neediness. If the value for *SumV* is greater than zero, and there is no reason to attribute it to a sense of guilt or remorse, it indicates the presence of a disquieting or negative feeling that is being generated by a persistent tendency to berate or degrade oneself. If the value for *SumC'* is greater than two, it signals the presence of irritating or negative feelings that have been created because of an unusual tendency to inhibit the release of emotions and suppress their impact. In effect, the *C'* variables relate to psychologically internalizing feelings that preferably should have been released. Proceed to Step 5.

Case 7 Finding Positive

The *eb* is 5:4, but there are two texture responses in the record. The history does not include any evidence of recent loss. Thus, it is reasonable to suspect that he is a person who experiences more loneliness or neediness than do most people. This can easily contribute to incidents of discomfort or distress.

Potential Finding 3: If the right-side value of the *eb* is greater than the left side when the left-side value is 3 or more, or if the right-side *eb* value is at least 4 when the left-side value is less than 3, it should be assumed that the person is in some distress. Distress can take any of several forms. It can be direct as in depression or anxiety, or it can be more indirect as in unusual tension, apprehension, or various physical anomalies such as insomnia, lethargy, or some other form.

When this finding is positive, each of the variables contributing to the right-side *eb* value should be evaluated in accord with the relationships described in **Potential Finding 2** to discern the source(s) of the distress and formulate appropriate hypotheses about it. Proceed to Step 5.

Cases 6 and 8 Findings Positive

In both cases, there is a higher right-side *eb* value. Case 6 is 3:6 and Case 8 is 7:10. It is reasonable to assume that both of these individuals are experiencing some form of distress. This is not surprising in light of the presenting features and previously noted DEPI values. Case 6 reports tension and anxiety and has a DEPI value of 5. Case 8 complains of frequent bouts of depression and has a DEPI value of 6. Thus, the issue is what affective elements are contributing to the situation.

In Case 6, there is a significant elevation for *SumC'* (4) which probably relates to a marked tendency to inhibit and internalize feelings that she would prefer to release. This is not necessarily unusual for a pervasive introversive person, but it does seem excessive and suggests that she may be more

Case 7. Affect-Related Data for a 28-Year-Old Male.

EB	= 4:5.0		EBPer	= NA	Blends
eb	= 5:4	L = 1.30	FC:CF+C	= 1:4	M.CF.FC' = 1
DEPI	= 5	CDI = 5	Pure C	= 1	M.FC = 1
					m.CF = 1
C' = 1	T = 2		SumC':SumC	= 1:5.0	FM.FC = 1
V = 0	Y = 1		Afr	= 0.67	FM.FT = 1
Intellect = 2		CP = 0	S = 4 (S to I,II,III = 2)		
Blends:R = 5:24			Col-Shad Bl	= 1	
m + y Bl = 1			Shading Bl	= 0	

Case 6. Affect-Related Data for a 30-Year-Old Female.

EB	= 8:3.0		EBPer	= 2.7	Blends
eb	= 3:6	L = 0.31	FC:CF+C	= 4:1	M.CF.C'F = 1
DEPI	= 5	CDI = 1	Pure C	= 0	M.FC.FD = 1
					M.m = 1
C' = 4	T = 1		SumC':SumC	= 4:3.5	FD.FC' = 1
V = 0	Y = 1		Afr	= 0.50	FM.FD = 1
					FM.Fr = 1
Intellect	= 6	CP = 0	S = 2 (S to I,II,III = 1)		
Blends:R	= 6:21		Col-Shad Bl	= 1	
m + y Bl	= 1		Shading Bl	= 0	

Case 8. Affect-Related Data for a 33-Year-Old Female.

EB	= 3:7.0		EBPer	= 2.3	Blends
eb	= 7:10	L = 0.18	FC:CF+C	= 3:4	C.C'.m = 1
DEPI	= 6	CDI = 1	Pure C	= 3	CF.m = 1
					M.FY = 1
C' = 1	T = 4		SumC':SumC	= 1:7.0	FM.FT.FY = 1
V = 1	Y = 4		Afr	= 0.37	FM.FV = 1
					FM.FY = 1
Intellect	= 10	CP = 0	S = 4 (S to I,II,III = 4)		m.FC = 1
Blends:R	= 7:26		Col-Shad Bl	= 1	
m + y Bl	= 4		Shading Bl	= 1	

uncomfortable, or even fearful, about her emotions than should be the case. Case 8 is much different. She has marked elevations for *SumY* (4) and *SumT* (4). The diffuse shading responses could be related to her inability to contain the bouts of depression, but a different source may be causing her to feel helpless. The texture responses may be even more important. There is no obvious evidence of loss in the history. Therefore, it is reasonable to assume a more chronic sense of loneliness or emotional neediness. She implies a good marriage, but that may be worth questioning, especially in the context of their contemplating adoption, plus the fact that his absence from the home, due to work, may be much more distressful for her than she openly admits.

Step 5: SumC':WSumC

This ratio concerns the suppression or constraint of emotion. Chromatic color responses (*FC*, *CF*, *C*) have some relationship to the release or discharge of emotion and the extent to which the release is controlled or modulated. As noted earlier,

the three forms of achromatic color answers (*FC'*, *C'F*, *C'*) relate to irritating feelings that are caused by the inhibition or internalization of emotion. All people do this now and then, but some people do it more frequently and sometimes to excess. The reasons for excessive inhibition vary. Some people tend to inhibit feelings because they do not trust their ability to control them. Others do so because they are confused by some emotions and prefer to avoid dealing directly with them. At times, some individuals feel awkward or even guilty about their feelings and are insecure about sharing them with others or displaying them openly.

Regardless of the cause, when emotions are inhibited from expression excessively, the consequence is a painful and sometimes disorganizing burden for the individual. When this becomes a trait-like feature, the resulting internalization of affect can easily create a predisposition to any of a variety of somatic difficulties such as headache, stomach or intestinal problems, blood pressure irregularities, and so on, and can contribute

significantly to the onset of affective disruptions such as tension, anxiety, and depression.

Potential Finding: The *WSumC* is expected to be higher than, or at least equal to, the value for *SumC* regardless of whether a person is introversive, extratensive or ambitent, or whether an avoidant style is present. When this occurs, such as in Cases 7 and 8, no interpretive hypothesis can be formed. If, however, the value for *SumC* is greater than that for *WSumC*, it should be postulated that the individual is inhibiting the release of emotions much more frequently than do most people and, as a result, is burdened by more irritating feelings than should normally be the case.

Case 6 Finding Positive

The ratio is 4:3.5, indicating that she does inhibit emotional expression much more than most people. This has already been noted in Step 4, but it is magnified here, suggesting that she probably suffers markedly from the irritating feelings that result. This is not surprising for a person who has a positive DEPI and yet offers no direct complaints about being depressed.

Step 6: Affective Ratio

This variable relates to a person's interest in experiencing or being around emotional stimuli. As might be suspected, the average range of values for the *Afr* differs among introversives, extratensives, ambitents, and those with a high *Lambda* avoidant style. Table 16.1 shows ranges that can be considered as "average" for purposes of interpretation for seven groups.

Extratensives often have *Afr* values greater than .70 while introversives frequently have *Afr* values less than .65, but there is considerable overlap in the distributions of *Afr* scores when studied by *EB* style. Likewise, the average range for the *Afr* also varies considerably among children younger than age 14. People with an avoidant style generally will have lower than average *Afr* values for their *EB* group, but this does

Table 16.1 Affective Ratio Average Ranges for Seven Groups.

Group	Average Range
Extratensive Adults and Adolescents 14 and Older	.60 to .89
Introversive Adults and Adolescents 14 and Older	.53 to .78
Ambitent Adults and Adolescents 14 and Older	.53 to .83
Avoidant Style Adults and Adolescents 14 and Older	.45 to .65
Children Ages 5 and 6	.57 to 1.05
Children Ages 7 to 9	.55 to .92
Children Ages 10 to 13	.53 to .83

not necessarily mean that they seek to avoid emotional stimulation. It is more parsimonious to interpret low *Afr* values that occur for avoidant-style people as representing their tendency to avoid complexity unless other evidence is present that signals emotional constraint or serious emotional difficulties.

Potential Finding 1: When the *Afr* is in the average range the interpretation is reasonably straightforward. Namely, the individual seems as willing as most others with their particular coping style (or age in the instance of children) to process and become involved with emotionally toned stimuli. Generally, this is not a significant finding but, if the person tends to have persistent difficulties with the modulation or control of emotion it may indicate a naive lack of awareness concerning those problems. Usually, when emotional stimuli are processed some response or exchange is required. Therefore, people who have difficulties with control often find it more beneficial to avoid emotional stimuli, thereby reducing demands made on them (see Steps 9 and 10). Proceed to Step 7.

Potential Finding 2: If the value of the *Afr* is above the average range, it indicates that the person is very attracted by emotional stimulation and apparently quite interested in emotional exchange. This finding is more common

Case 7. Affect-Related Data for a 28-Year-Old Male.

EB	= 4:5.0		EBPer	= NA	Blends
eb	= 5:4	L = 1.30	FC:CF+C	= 1:4	M.CF.FC' = 1
DEPI	= 5	CDI = 5	Pure C	= 1	M.FC = 1
					m.CF = 1
C' = 1	T = 2		SumC':SumC	= 1:5.0	FM.FC = 1
V = 0	Y = 1		Afr	= 0.67	FM.FT = 1
Intellect = 2		CP = 0	S = 4 (S to I,II,III = 2)		
Blends:R = 5:24			Col-Shad Bl	= 1	
m + y Bl = 1			Shading Bl	= 0	

among extratensives but not exclusive to them. It should not be considered as a liability, but simply reflects a stronger interest in emotion. People such as this apparently are more intrigued with or reinforced by emotional stimuli. This can become a liability if there are problems with control and/or modulation because the tendency to seek out emotional stimuli will probably increase the frequency with which emotional exchanges are expected or required (see Steps 9 and 10). Proceed to Step 7.

Case 7 Finding Positive

The *Afr* of 0.67 is slightly higher than expected for a person with an avoidant style. This may be a spurious finding, but it also may reflect a stronger interest in emotional stimuli than is common for a person who tends to simplify inputs and avoid complexity. In that he may have problems with emotional control, this openness to affective stimuli would simply exacerbate those problems.

Potential Finding 3: If the value for the *Afr* is lower than average but greater than 0.43, it

suggests that the person is less interested in, or less willing to process, emotional stimuli. This finding is most common among those with an avoidant style and tends to depict their preference to limit complexity. It should not necessarily be considered as a liability, but instead, simply reflects a preference to be less involved with emotional stimuli. If other data indicate problems with modulation or control, this finding may signal some awareness of those problems and an inclination to avoid situations that would exacerbate those difficulties (see Steps 9 and 10). Proceed to Step 7.

Case 6 Finding Positive

The *Afr* value of 0.50 is slightly lower than the expected range for an introverted person, and may indicate that she is less interested in, or less willing to process, emotionally toned stimuli. This is not surprising in light of her tendency to inhibit emotional expression, noted in Steps 4 and 5.

Potential Finding 4: If the value for the *Afr* falls below 0.44 it indicates a marked tendency

Case 6. Affect-Related Data for a 30-Year-Old Female.

EB	= 8:3.0		EBPer	= 2.7	Blends
eb	= 3:6	L = 0.31	FC:CF+C	= 4:1	M.CF.C'F = 1
DEPI	= 5	CDI = 1	Pure C	= 0	M.FC.FD = 1
					M.m = 1
C' = 4	T = 1		SumC':SumC	= 4:3.5	FD.FC' = 1
V = 0	Y = 1		Afr	= 0.50	FM.FD = 1
					FM.Fr = 1
Intellect = 6		CP = 0	S = 2 (S to I,II,III = 1)		
Blends:R = 6:21			Col-Shad Bl	= 1	
m + y Bl = 1			Shading Bl	= 0	

Case 8. Affect-Related Data for a 33-Year-Old Female.

EB	= 3:7.0		EBPer	= 2.3	Blends
eb	= 7:10	L = 0.18	FC:CF+C	= 3:4	C.C'.m = 1
DEPI	= 6	CDI = 1	Pure C	= 3	CF.m = 1
					M.FY = 1
C' = 1	T = 4		SumC':SumC	= 1:7.0	FM.FT.FY = 1
V = 1	Y = 4		Afr	= 0.37	FM.FV = 1
					FM.FY = 1
Intellect = 10	CP = 0		S = 4 (S to I,II,III = 4)		m.FC = 1
Blends:R = 7:26			Col-Shad Bl	= 1	
m + y Bl = 4			Shading Bl	= 1	

to avoid emotional stimuli. People such as this usually are quite uncomfortable when dealing with emotion. As a result, they often become much more socially constrained or even isolated. Typically, when this finding is positive there will be other evidence signifying emotional constraint (see Step 5) or marked emotional defensiveness (see Steps 7 and 8). This finding is particularly important in the protocol of a child or adolescent because it suggests that many of the everyday exchanges that contribute to development are being avoided or approached with excessive caution. Proceed to Step 7.

Case 8 Finding Positive

The *Afr* value of 0.37 is extremely low, especially for an extratensive person. It suggests that she is prone to avoid emotional confrontations at almost all costs. This is not necessarily an unexpected finding for a person who has a positive DEPI (6) and who is in the considerable distress noted in Step 4, which includes a marked sense of helplessness. This finding is especially important because it implies that she has a sense of fearfulness or distrust about her own natural coping style that involves the use of emotional experience routinely as an important source from which to guide her decisions.

Step 7: Intellectualization Index

This Index ($2Ab + Art + Ay$) offers information regarding the use of intellectualization. It is a

process by which the impact of emotional situations or experiences is reduced or even neutralized by dealing with them on an ideational rather than emotional level. It is a pseudo-intellectual process that serves to conceal or deny the presence of feelings and, as a result, reduces the likelihood that the emotions will be dealt with directly and/or realistically.

Intellectualization is a common defensive tactic used by most people from time to time when confronted with affective situations that they prefer to avoid. Thus, the issue is not whether a person intellectualizes, but whether this tactic is used excessively. Intellectualization Index values of less than 4 have no interpretive meaning. This is true for Case 7.

Potential Finding 1: Values between 4 and 6 indicate that the person is inclined to deal with feelings on an intellectual level more often than most people. Although this process reduces or neutralizes the impact of the emotions, it also represents a form of denial that tends to distort the true meaning as well as the impact of a situation. Proceed to Step 8.

Case 6 Finding Positive

The value of 6 indicates that she does tend to deal with emotions on an intellectual level more than do most people. This neutralizing tactic is not uncommon among people who prefer to avoid dealing directly with emotions, as has already been suggested from Steps 4, 5, and 6.

Case 6. Affect-Related Data for a 30-Year-Old Female.

EB	= 8:3.0		EBPer	= 2.7	Blends
eb	= 3:6	L = 0.31	FC:CF+C	= 4:1	M.CF.C'F = 1
DEPI	= 5	CDI = 1	Pure C	= 0	M.FC.FD = 1
					M.m = 1
C' = 4	T = 1		SumC':SumC	= 4:3.5	FD.FC' = 1
V = 0	Y = 1		Afr	= 0.50	FM.FD = 1
					FM.Fr = 1
Intellect	= 6	CP = 0	S = 2 (S to I,II,III = 1)		
Blends:R	= 6:21		Col-Shad Bl	= 1	
m + y Bl	= 1		Shading Bl	= 0	

Potential Finding 2: When the value exceeds 6, it signifies that the person uses intellectualization as a major defensive tactic in situations that are perceived as affectively stressful. People such as this tend to become more vulnerable to disorganization during intense emotional experiences because the tactic becomes less effective as the magnitude of affective stimuli increases. Proceed to Step 8.

Case 8 Finding Positive

The Case 8 value is 10, suggesting she is using intellectualization as a major defensive tactic to avoid the impact of emotional experiences. When this is considered along with the finding about the very low *Afr*, it suggests that she is attempting to go to great lengths to take flight from her feelings, and those imposed on her by the environment, and deny their impact. This sort of strategy makes anyone vulnerable to affective disorganization, but that vulnerability is increased more so for an extroverted person.

Step 8: Color Projection

Color projections are quite rare and the value for CP is always expected to be zero, as is true for Cases 6, 7, and 8. The presence of even one CP has special interpretive importance. It represents the use of an unusual form of denial to contend with unpleasant emotional experiences.

Potential Finding: When the value for CP is greater than zero, it signifies that the individual often denies the presence of irritating or unpleasant emotion or emotional stimulation by substituting an inappropriately positive emotion or emotional value to the situation. This is a hysteroid-like process that disregards or violates reality. Typically, people who use this form of defense feel very uncomfortable about their ability to deal adequately with negative feelings and often have problems in modulating their own affective displays. Consequently, they are prone to bend reality to avoid dealing with perceived or

Case 8. Affect-Related Data for a 33-Year-Old Female.

EB	= 3:7.0		EBPer	= 2.3	Blends
eb	= 7:10	L = 0.18	FC:CF+C	= 3:4	C.C'.m = 1
DEPI	= 6	CDI = 1	Pure C	= 3	CF.m = 1
					M.FY = 1
C' = 1	T = 4		SumC':SumC	= 1:7.0	FM.FT.FY = 1
V = 1	Y = 4		Afr	= 0.37	FM.FV = 1
					FM.FY = 1
Intellect	= 10	CP = 0	S = 4 (S to I,II,III = 4)		m.FC = 1
Blends:R	= 7:26		Col-Shad Bl	= 1	
m + y Bl	= 4		Shading Bl	= 1	

Case 6. Affect-Related Data for a 30-Year-Old Female.

EB	= 8:3.0		EBPer	= 2.7	Blends
eb	= 3:6	L = 0.31	FC:CF+C	= 4:1	M.CF.C'F = 1
DEPI	= 5	CDI = 1	Pure C	= 0	M.FC.FD = 1
					M.m = 1
C' = 4	T = 1		SumC':SumC	= 4:3.5	FD.FC' = 1
V = 0	Y = 1		Afr	= 0.50	FM.FD = 1
					FM.Fr = 1
Intellect	= 6	CP = 0	S = 2 (S to I,II,III = 1)		
Blends:R	= 6:21		Col-Shad Bl	= 1	
m + y Bl	= 1		Shading Bl	= 0	

anticipated harshness in the environment. This form of defensiveness is often quite transparent and people who use it frequently tend to find themselves being judged by others as being emotionally superficial. Proceed to Step 9.

Step 9: FC:CF+C Ratio

The FC:CF+C ratio and the value for Pure C offer information concerning the modulation of emotional discharges or displays. The FC response correlates with more well controlled or modulated emotional experiences, whereas the CF answers relate to less restrained forms of affective discharge. Pure C answers tend to correlate with the more unrestrained ventilation of feelings. It is important to note, however, that the values for CF and C are considerably less reliable when studied separately than when studied as the unit CF+C. Most nonpatient adults give more, or at least as much FC as CF+C. On the other hand, youngsters typically give more CF and C answers than FC responses.

Potential Finding 1: If the value for FC is at least one point more, or as much as twice that of the CF+C value and the value for Pure C is zero, it can be assumed that the person controls or modulates emotional discharge about as much as most adults. This is an unexpected finding in the record of an individual younger than age 15 and suggests that more stringent controls are being exerted in contending with emotional display

than is common among younger clients. Proceed to Step 11.

Potential Finding 2: If the value for FC is more than twice but less than three times that of the CF+C value and the value for Pure C is zero, a tendency exists to exert more stringent control of emotional discharges than is typical of most people. This is an extremely unusual finding in the record of a person younger than age 15. Proceed to Step 11.

Potential Finding 3: If the value for FC is three or more times that of the value for CF+C and the value for Pure C is zero, it should be assumed that the person is much more overcontrolling of emotional displays than most people. This finding usually indicates a fearfulness or mistrust of being involved in more intense affective displays and suggests the likelihood of emotional constriction. Proceed to Step 11.

Case 6 Finding Positive

The ratio is 4:1 and there are no Pure C answers. It is already established that she is a pervasively introverted person who intellectualizes and has a marked tendency to inhibit emotional expressions. Therefore, it is not surprising to find that when she does give her color answers, most are form-dominated. This seems to confirm the postulate that she is probably uncomfortable with emotion, fearful of it becoming overly intense, and apparently works hard to ensure that her emotional displays are tightly modulated.

Potential Finding 4: If the value for *FC* is at least one point more or as much as twice that of the *CF+C* value, *and* the value for Pure *C* is one, it can be assumed that the person modulates emotional discharge about as much as other adults most of the time. However, in some instances modulation lapses occur during which discharges are less well controlled than is the case for most adults. This finding is quite uncommon in the records of clients younger than age 15. Proceed to Step 10.

Potential Finding 5: If the value for *FC* is more than twice the value for *CF+C* and the value for Pure *C* is one or more, it signifies that, in most instances, emotional displays are tightly modulated but that the stringent controls are vulnerable to failure. People such as this usually have conflicts about emotion, which, at times, contribute to a breakdown of the routine efforts at stringent modulation. Proceed to Step 10.

Potential Finding 6: If the record of an adult has an *FC* value that is at least one point more, or as much as twice that of the *CF+C* value *and* the value for Pure *C* is greater than one, it indicates that, although the person strives to modulate emotional discharge effectively, potentially serious lapses in modulation occur frequently. This is a very unusual finding in the protocol of an adult that should be reviewed in the context of control issues. This finding is not uncommon in the records of children or young adolescents as they are still learning about the appropriate modulation of emotional displays. Proceed to Step 10.

Potential Finding 7: If the value for *CF+C* is equal to or as much as two points greater than the value for *FC*, and the value for Pure *C* is zero or one, it signifies that the individual is less stringent about modulating emotional discharges than are most adults. People such as this tend to be more obvious or intense in expressing feelings than the average individual. This is not necessarily a negative finding

for an adult, especially if there are no difficulties with controls, however, it can be a significant liability for those with interpersonal or reality testing problems and/or those experiencing forms of emotional disruption. Any of these conditions can give rise to situations in which the magnitude of emotional expression is likely to be inappropriate for the circumstance. Although this is a common finding for most younger adolescents and children, it is far less common for the introversive individual regardless of age. Proceed to Step 10 if a Pure *C* response has been given or Step 11 if the value for Pure *C* is 0.

Potential Finding 8: If the record of an adult has a value for *CF+C* that is equal to, or as much as, two points greater than the value for *FC* and the value for Pure *C* is greater than one, it indicates some potentially serious modulation problems. People such as this are often overly intense in their emotional displays and frequently convey impressions of impulsiveness. This problem could be the product of control difficulties, however, it is equally possible that it reflects a less mature psychological organization in which the modulation of affect is not regarded as being very important. This finding is very common among children and tends to represent the affective exuberance and limited modulation that frequently manifests in the behaviors of youngsters. However, this finding is extremely unusual among introversive subjects regardless of age. If it is positive for the introversive person, it is reasonable to hypothesize that the efficacy or integrity of the ideational style is impaired and often is "shortcircuited" by other psychological operations. Proceed to Step 10.

Case 8 Finding Positive

The *FC:CF+C* ratio of 3:4 is not unusual, but the three Pure *C* answers signal some significant modulation problems. At times, her emotional displays are likely to be inappropriately intense and probably will convey an impression of impulsiveness.

Case 8. Affect-Related Data for a 33-Year-Old Female.

EB	= 3:7.0		EBPer	= 2.3	Blends
eb	= 7:10	L = 0.18	FC:CF+C	= 3:4	C.C'.m = 1
DEPI	= 6	CDI = 1	Pure C	= 3	CF.m = 1
					M.FY = 1
C' = 1	T = 4		SumC':SumC	= 1:7.0	FM.FT.FY = 1
V = 1	Y = 4		Afr	= 0.37	FM.FV = 1
					FM.FY = 1
Intellect = 10		CP = 0	S = 4 (S to I,II,III = 4)		m.FC = 1
Blends:R = 7:26			Col-Shad Bl	= 1	
m + y Bl = 4			Shading Bl	= 1	

The history offers no hint of immaturity, making it more likely that this is the product of serious control difficulties. If control problems do exist, they could account for the previously noted low *Afr* and her marked tendency to intellectualize, both of which could represent efforts to avoid contending with intense feelings that she has great difficulty controlling.

Potential Finding 9: If the value for *CF+C* is three or more points greater than the value for *FC*, and the value for Pure *C* is zero, it indicates that the person modulates emotional discharges much less than others. Adults such as this frequently call attention to themselves because of the intensity by which their feelings are expressed. This is not necessarily a liability as the effectiveness or ineffectiveness of the higher frequency of less restrained emotional displays will be determined largely by the acceptability of the displays in the social environment. If, however, difficulties in reality testing and/or forms of emotional disruption exist, it is likely that many less well controlled

expressions of affect will occur that may be inappropriate for the situation. This is a very common finding among younger adolescents and most children. Proceed to Step 11.

Potential Finding 10: If the value for *CF+C* is three or more points greater than the value for *FC*, and the value for Pure *C* is one or more, it reflects a significant laxness in modulating emotion. This finding is most common among younger children. It is an unusual finding among adults and frequently they are regarded by others as being impulsive or, at the very least, overly emotional and/or less mature. When this finding is positive for a person having difficulties in reality testing or a person experiencing emotional disruption, the consequences of the modulation failures can often have a very negative impact on attempts at social adjustment. When this finding is positive for an introverted subject, it signals a serious problem regarding the functioning and/or effectiveness of the ideational style. Proceed to Step 10.

Case 7. Affect-Related Data for a 28-Year-Old Male.

EB	= 4:5.0		EBPer	= NA	Blends
eb	= 5:4	L = 1.30	FC:CF+C	= 1:4	M.CRFC' = 1
DEPI	= 5	CDI = 5	Pure C	= 1	M.FC = 1
					m.CF = 1
C' = 1	T = 2		SumC':SumC	= 1:5.0	FM.FC = 1
V = 0	Y = 1		Afr	= 0.67	FM.FT = 1
Intellect = 2		CP = 0	S = 4 (S to I,II,III = 2)		
Blends:R = 5:24			Col-Shad Bl	= 1	
m + y Bl = 1			Shading Bl	= 0	

Case 7 Finding Positive

The ratio is 1:4 and there is one Pure C response, suggesting that his emotional displays are routinely much more intense than expected for an adult. When considered in light of the positive CDI and his avoidant style, it seems likely that he is not a very mature person who tends to be careless or unconcerned about controlling his emotional expressions and, at times, they will be inappropriately intense and possibly even volatile. This postulate tends to coincide with his history of verbal abusiveness when drinking, and suggests that the matter of affective modulation may be a prime intervention target.

Step 10: Pure C Responses

It is always important to read the Pure C responses to subjectively evaluate the extent to which they represent a less mature or more primitive type of answer as contrasted with those that reflect more restraint. Pure C answers vary considerably in their level of sophistication or lack thereof. Some Pure C answers have a more intellectual quality and suggest more control than is implied by the coding. Responses involving abstract art or decorations often fall into this category.

Other Pure C responses stand out because of their more primitive quality such as blood splattered, fire, muscle or organ tissue, and so on. When the Pure C answers are more intellectual, it suggests that modulation failures will be more subtle and probably more transient. More primitive Pure C responses often reflect a casual disregard for control and are more common among those who have frequent modulation failures that give rise to maladaptive behaviors.

Potential Finding: If all Pure C answers have a defensive and/or pseudo-intellectual quality, they should probably be considered similar to CF responses when evaluating whether a serious modulation problem exists. Conversely, if any of the Pure C responses have a more primitive quality, the finding should be considered as

a significant liability except in the records of young children. Responses such as these probably indicate that when the modulation lapses occur, the resulting behaviors are likely to be inappropriate and potentially maladaptive. Proceed to Step 11.

Case 7 Response

X. (W) "That ll somebody just threw a lot of paint on smthg, lik a kid just threw som paint, kids do tht smtimes. (Inquiry) It just ll a lot of paint to me but I guess it cld hav som meaning but I don't kno what. It really just ll a lot of diff colors that somebody threw ther, pink & yellow & blue and all that."

The color is used in a rather loose and almost casual manner. It is an avoidant and immature response. The opportunity exists to organize the color features in a more effective or controlled manner but does not occur. As a result, it is very unsophisticated and serves to highlight the laxity in modulation noted by the Step 9 finding.

Case 8 Responses

II. (W) Sunshine after a storm. (Inquiry) These red parts, lik it was a hot day mb after som rain & wind, the sun came thru. (E: I don't thnk I'm seeg it lik u r, help me) Ths drk prt ll clouds, & the red at the top & bottm ll the sun comg thru, lik th drk clouds r breakg up & th sun is comg thru, if th wht prt was anothr color it wld b blue, lik blue sky.

VIII. (W) Pretty, I lik th colrs, thy rem me of cloth 4 Easter. (Inquiry) Its soft lookg, lik som cloth 4 Easter dresses, th dresses pink & peach make it look very beautifl (E: U said its soft?) Th colors r soft, pastel lik, not harsh, thy r lik u wld use 4 a lovely wms dress.

IX. (W) A stained glass window in a church. (Inquiry) Th colors ll prt of a stained glass window tht u'd find in a church, I didn't mean I c the window, j the colors of one, orange & pink & blue, lik thy wb used for a church window.

None of these answers are volatile or primitive. Instead, they typify her efforts at intellectualization and illustrate how she uses that process. It does tone down any intense feelings that she may have had, however, she could have injected some more definitive form into any of the three answers.

In effect, the process helped her to contain her own reactions, but caused her to sacrifice effectiveness in dealing with the stimulus components.

Step 11: Space Responses

Most people give at least one *S* response, usually to Cards I or II, and two *S* answers is not uncommon. Generally, the reversal of figure and ground, or the integration of figure and ground, can be thought of representing a sense of individuality. However, if the number of *S* responses is excessive, issues of negativism, oppositionality, or even anger must be considered. The sequencing of *S* responses is important if more than two *S* responses are given. This is because some people approach the test with a very negative set. Thus, it becomes important to differentiate findings that are more situational as contrasted with those signifying a trait-like feature.

Potential Finding 1: If the value for *S* falls between zero and two, as is true for Case 6 ($S = 2$), the finding is not significant. Proceed to Step 12.

Potential Finding 2: If the value for *S* is three, and all *S* responses were given to the first two blots, it indicates that the subject was probably not well prepared to take the test and responded negativistically to the demands of the situation. Although this may reflect some unusual oppositionality, it is more parsimonious to assume that the negativism is situationally related. Proceed to Step 12.

Potential Finding 3: If the value for *S* is four or five, and all *S* answers were given to the first three blots, it indicates that the person was quite irritated by the test situation. This probably reflects a tendency to be excessively oppositional when confronted with unwanted challenges, but also could reflect a more enduring negative set toward authority. Proceed to Step 12.

Case 8 Finding Positive

Her record contains four *S* responses, all of which were given to the first three cards. It seems likely that she was threatened by the assessment situation and responded somewhat negatively until she became more adapted to the task.

Potential Finding 4: If the value for *S* is three, and at least one of the three *S* answers occurred after Card II, it suggests that the subject is disposed to be more negativistic or oppositional toward the environment than are most people. This is not a liability but can become detrimental to the formation of harmonious social relationships. Proceed to Step 12.

Potential Finding 5: If the value for *S* is four or more, and at least one of the *S* answers was given after Card III, it indicates the presence of considerable anger. Usually, the anger is generalized and has a marked effect on attitudes toward the environment. This is a trait-like feature that affects the psychological functioning of the individual. Invariably, it will have some influence on the decision-making and

Case 8. Affect-Related Data for a 33-Year-Old Female.

BB = 3:7.0		EBPer = 2.3	Blends
eb = 7:10	L = 0.18	FC:CF+C = 3:4	C.C'.m = 1
DEPI = 6	CDI = 1	Pure C = 3	CF.m = 1
			M.FY = 1
C' = 1 T = 4		SumC':SumC = 1:7.0	FM.FT.FY = 1
V = 1 Y = 4		Afr = 0.37	FM.FV = 1
			FM.FY = 1
			m.FC = 1
Intellect = 10	CP = 0	S = 4 (S to I,II,III = 4)	
Blends:R = 7:26		Col-Shad Bl = 1	
m + y Bl = 4		Shading Bl = 1	

coping activities of the individual. For some people with this trait the anger will manifest routinely in direct and obvious ways in their behaviors. For others, the manifestations are more subtle and indirect and, if emotional constraint is a significant characteristic of the psychological organization of a person, he or she may simply "smolder" inside. Regardless of how the anger is handled, people such as this usually have difficulty sustaining meaningful relationships with others as they are prone to be less tolerant of the routine compromises usually required in social intercourse. If problems in control and/or modulation exist, it is likely that the more intense affective displays of the individual will include some manifestations of this highly negativistic set. Proceed to Step 12.

Case 7 Finding Positive

There are four *S* responses in the record, half of which occur after Card III. He is an angry man. This is not surprising in light of his apparent immaturity, social ineptness, and his occupational failures. It probably relates directly to the abusiveness that he manifests when drinking. This finding should be considered as quite important when the issue of treatment planning is considered.

Step 12: Blends, EB, and Lambda

The number or proportion of blends in the record provide a crude estimate of the *current* psychological complexity of the person. This information can be important when attempting to understand the psychology of an individual, especially his or

her emotional features. Although all people are complex, some are more complex than others. The level of complexity in any person is not static. Instead, it tends to increase or decrease around some level that is idiosyncratically typical for the individual.

For instance, people who are very intelligent usually are more psychologically complex than those whose intellectual levels are average or below average. However, at any given time, that situation could reverse depending on the experiences of stress, unfulfilled needs, unresolved conflicts, and so on that might exist within an individual. As stresses, needs, and conflicts become modest or even minimal, complexity will decrease to some extent but, as the experience of stresses, needs, conflicts, increases, so too does the level of complexity. The first issue to be addressed when interpreting the frequency or proportion of blends in a protocol is whether they seem to be consistent with what might be expected for the individual. In subsequent steps, this finding is reviewed in the context of the current situation of the individual.

The majority of blends include at least one affect-related determinant (chromatic color, achromatic color, or shading). Therefore, most will have direct relevance to the study of emotions, but even if a blend does not contain an affect-related determinant, its presence remains important to the study of emotion, as complexity itself often impacts on how emotions are experienced, or how they are manifest. The expected number of blends differs in relation to the *EB* style and *Lambda*.

Case 7. Affect-Related Data for a 28-Year-Old Male.

EB	= 4:5.0		EBPer	= NA	Blends
eb	= 5:4	L = 1.30	FC:CF+C	= 1:4	M.CF.FC' = 1
DEPI	= 5	CDI = 5	Pure C	= 1	M.FC = 1
					m.CF = 1
C' = 1	T = 2		SumC':SumC	= 1:5.0	FM.FC = 1
V = 0	Y = 1		Afr	= 0.67	FM.FT = 1
Intellect = 2	CP = 0		S = 4 (S to I,II,III = 2)		
Blends:R = 5:24			Col-Shad Bl	= 1	
m + y Bl = 1			Shading Bl	= 0	

When the value for *Lambda* is not greater than 0.99, introversives tend to give fewer blends than extratensives or ambitents. Typically, about 20% of their responses are blended and it is somewhat unusual for the proportion of blends to exceed 25% of *R* (the average range is 13% to 26%). Extratensives tend to give records in which about 25% of the answers are blended and it is not unusual for the proportion to be as high as 33% of *R* (the average range is 19% to 33%). Blends given by ambitents also average about 25% of *R* but it is not unusual for the proportion to exceed 35% (the average range for this group is 16% to 36%).

If the value for *Lambda* is 1.0 or greater, the proportion of blends generally is expected to be low. Avoidant-style people usually give records in which fewer than 15% of their responses are blended and it is not uncommon for fewer than 10% of *R* to consist of blends (the average range is from 8% to 14%). This seems consistent with the orientation of the avoidant-style individual to minimize complexity.

Potential Finding 1: If the proportion of blends is in the average range in relation to the style reflected by the *EB* or *Lambda*, it can be assumed that the level of psychological complexity is not unlike that of others who have a similar stylistic orientation. Proceed to Step 13.

Case 8 Finding Positive

The seven blends in this 26 response extratensive record (27%), indicates that her level of complexity is not unlike that of most people with this style.

This is an unexpected finding in light of the distress that she seems to be experiencing.

Potential Finding 2: If the proportion of blends is below average for the style indicated by the *EB* or *Lambda*, it suggests that the psychology of the person is less complex than expected. This finding is most common among those whose psychological organization is marked by immaturity. People such as this often manifest behavioral difficulties when they are confronted with complex emotional situations. Proceed to Step 13.

Potential Finding 3: If the proportion of blends is greater than average for the style signified by the *EB* or *Lambda*, it indicates that the psychological functioning of the person is more complex than expected. As most blends involve one or more variables related to affect, it is common to find that the unexpected complexity has an emotional basis. This is not a liability provided that the person has the resources available to contend with the array of emotional experience. If resources are more limited, or if problems in control modulation exist, an increase in complexity increases the likelihood that affect will have a detrimental influence on the behavioral consistency or stability of the individual. Proceed to Step 13.

Cases 6 and 7 Findings Positive

Case 6, an introversive, has six blends in 21 responses (29%), which is a bit higher than expected. This is probably related to her distress. Case 7

Case 8. Affect-Related Data for a 33-Year-Old Female.

EB	= 3:7.0		EBPer	= 2.3	Blends
eb	= 7:10	L = 0.18	FC:CP+C	= 3:4	C.C'.m = 1
DEPI	= 6	CDI = 1	Pure C	= 3	CF.m = 1
					M.FY = 1
C' = 1	T = 4		SumC':SumC	= 1:7.0	FM.FT.FY = 1
V = 1	Y = 4		Afr	= 0.37	FM.FV = 1
					FM.FY = 1
Intellect = 10	CP = 0		S = 4 (S to I,II,III = 4)		m.FC = 1
Blends:R = 7:26			Col-Shad Bl	= 1	
m + y Bl = 4			Shading Bl	= 1	

Case 6. Affect-Related Data for a 30-Year-Old Female.

EB	= 8:3.0		EBPer	= 2.7	Blends
eb	= 3:6	L = 0.31	FC:CF+C	= 4:1	M.CF.C'F = 1
DEPI	= 5	CDI = 1	Pure C	= 0	M.FC.FD = 1
					M.m = 1
C' = 4	T = 1		SumC':SumC	= 4:3.5	FD.FC' = 1
V = 0	Y = 1		Afr	= 0.50	FM.FD = 1
					FM.Fr = 1
Intellect	= 6	CP = 0	S = 2 (S to I,II,III = 1)		
Blends:R	= 6:21		Col-Shad Bl	= 1	
m + y Bl	= 1		Shading Bl	= 0	

Case 7. Affect-Related Data for a 28-Year-Old Male.

EB	= 4:5.0		EBPer	= NA	Blends
eb	= 5:4	L = 1.30	FC:CF+C	= 1:4	M.CF.C'F = 1
DEPI	= 5	CDI = 5	Pure C	= 1	M.FC = 1
					m.CF = 1
C' = 1	T = 2		SumC':SumC	= 1:5.0	FM.FC = 1
V = 0	Y = 1		Afr	= 0.67	FM.FT = 1
Intellect	= 2	CP = 0	S = 4 (S to I,II,III = 2)		
Blends:R	= 5:24		Col-Shad Bl	= 1	
m + y Bl	= 1		Shading Bl	= 0	

contains five blends in 21 answers. It represents 21% of the record, but that is somewhat unusual for an avoidant-style person. Neither of these findings is necessarily dramatic or unexpected, as both individuals seem intelligent and both are prospective patients. It will be important to determine if the higher than expected levels of complexity are creating a significant liability for these individuals.

Step 13: Blends Related to Situational Stress

The Step 12 finding provides information about current complexity, however, it is important to determine if the current level is typical or may have been noticeably increased because of situational factors. As illustrated in Chapter 15, this is done by reviewing the number of blends that are created *exclusively* by the presence of *m* and/or *Y* variables, such as *FC.FY*, *m.CF*. In most records, such as Cases 6 and 7, one such blend is common and no reconsideration of the Step 12 finding is warranted. On the other hand, if the number exceeds one, the finding may be significant.

Potential Finding: If the number of blends created exclusively by the presence of *m* or *Y* variables is greater than one, subtract *all but one* of those blends from the total and recalculate the proportion of blends to total responses (*R*). If the recalculation indicates that the proportion falls in a different range (by style) than noted in Step 12, the conclusion regarding complexity derived from Step 12 should be modified. The modification should note that it is reasonable to conclude that situationally related stresses have created more complexity in psychological functioning than ordinarily is the case and that less complexity can be expected when those situationally related factors are not present. Proceed to Step 14.

Case 8 Finding Positive

As was noted in Step 12, seven of her 26 responses (27%) are blended, indicating a typical level of complexity for an extratensive person. However, four of the seven blends are created by the presence of the *m* and *Y* variables (*CF.m*, *M.FY*, *FM.FY*, and

MFC). When three are subtracted from the total, the recalculation (3/26) result is 12%, a proportion that is much lower than expected for extratensives. Apparently, under "ordinary" circumstances, she is not a very complicated person. Any description about her should note that situational factors have created considerably more complexity than is customary. Interestingly, this is a woman who works hard to avoid or deny her feelings. The added complexity is increasing her level of emotional distress and creating even greater burdens for her as she attempts to deal with these unwanted feelings.

Step 14: Unusual Complexity

Unusual levels of psychological complexity are not always reflected fully by the Steps 12 and 13 findings. In some cases, the proportion of blends may be average or even lower than average for a person who is more complex than might be expected. In other instances, the proportion of blends may be greater than expected but still not capture the magnitude of the complexity. Typically, these cases will be identified by the presence of overly complicated blends.

Approximately three out of every four blends involve only two determinants. About one in four will have three determinants and it is quite unusual for a blend to have more than three determinants. Thus, if no more than one-fourth of the blends contain three determinants and if none contains more than three determinants, findings from this step are not significant. This is true for Case 7. In Case 7, only one of the five blends has three determinants.

Potential Finding: If more than one-fourth of the blends contain three determinants, or if the record contains one or more blends that include four or more determinants, the conclusion derived from Step 12 should be modified. The modification should note that, at times, the psychological functioning of the subject is inordinately complex. This added complexity is almost always the result of emotional experience. While this is not necessarily a liability, it can easily contribute to dysfunction,

especially if resources are limited or if problems in control and/or modulation exist. Proceed to Step 15.

Cases 6 and 8 Findings Positive

In Case 6, two of the six blends contain three determinants. Likewise, two of the seven blends in Case 8 contain three determinants. For Case 6, the Step 12 finding revealed a level of complexity that is only slightly greater than average and not unexpected in light of her distress. The current finding suggests that, at times, her psychological functioning may become more complex than previously indicated.

The Case 8 finding is probably more important. In Step 12 it was noted that she seems no more complex than might be expected, but that notion was modified in Step 13, which revealed that, usually, she is not a very complicated person, but has become more complex due to situationally related elements. This finding magnifies the Step 13 conclusion. Both of her three variable blends contain *m* or *Y* determinants, but neither were considered in Step 13. Apparently, some situational element(s) are causing an inordinate complexity that she cannot handle easily or effectively. The history offers no information about situational stresses, except the fact that her two months of treatment has not been successful. It is possible that some important information has been concealed, or it may be that her experiences of depression are much more intense and disabling than is obvious from her report.

Step 15: Color-Shading Blends

A color-shading blend is defined as any response for which the coding includes both a chromatic color determinant (*FC*, *CF*, *C*) and an achromatic color (*FC'*, *C'F*, *C'*) or shading determinant (*diffuse shading*, *texture*, or *vista*). They usually indicate the presence of uncertainty, confusion, or even ambivalence about feelings.

Color-shading blends are found much more frequently in the protocols of extratensives and ambitents than in introversive or avoidant-style records. This does not mean that the interpretation should differ markedly when the issue of style is considered. It does, however, indicate that

the issues of both style *and* frequency can be important in determining how postulates regarding this finding should be framed.

Potential Finding 1: When there is one color-shading blend in the record of an extratensive or ambitent that is created by the presence of a *C'*, *T*, or *V* variable, it should be hypothesized that the person is sometimes uncertain or confused by emotion or emotional situations. This is not necessarily a negative finding, especially for extratensive persons who are more involved with feelings than people with other styles. For the extratensive, occasional episodes of uncertainty about feelings are likely to be somewhat routine, but probably not very upsetting because they typically are more comfortable than others in dealing with their feelings.

Case 8 Finding Positive

There is one color-shading blend (*C.C'.m*) indicating that she is uncertain at times about her feelings. Ordinarily, this finding would not be considered to have much importance because she is an extratensive person. However, in light of the host of her emotional difficulties that have been noted previously, it may be important to consider when summarizing findings.

Potential Finding 2: If there is one color-shading blend created by the presence of a *C'*, *T*, or *V* variable in the record of an introversive or avoidant-style person, or more than one in the protocol of an extratensive or ambitent individual, it should be postulated that the person is often confused by emotion or emotional situations. People such as this usually experience feelings more intensely than others and sometimes have more difficulty in bringing closure to emotional situations. If this finding is positive for an introversive or avoidant-style person, the impact of this feature is probably more disruptive because they are less accustomed to the experience and may have greater difficulty seeking resolution of the issue.

Cases 6 and 7 Findings Positive

Both records contain one color-shading blend. In Case 6, it is *M.CF.C'F* and, in Case 7, it is *M.CF.FC'*. Each of these persons apparently are more ambivalent about, or confused by, emotion more frequently than is common. These experiences are probably rather disruptive and add to any distress that they may be experiencing.

Potential Finding 3: If there is one or more color-shading blends in a record, regardless of style, that are created by the presence of a *Y* variable, it can be assumed that some uncertainty or confusion about feelings does exist that probably is the result of situationally related events. The presence of this type of confusion tends to be somewhat more disruptive to introversive and avoidant-style people than to extratensive or ambitent individuals. If either finding 1 or 2 have been positive, this finding should be noted as a supplement to the previously developed postulate. Proceed to Step 16.

Step 16: Shading Blends

Shading blends, such as *FT.FC'*, *FV.FY*, and so on, are very unusual and never expected. They reflect the presence of very distressful emotional experiences.

Potential Finding: If one or more shading blends have been given, it signals the presence of very painful emotions. Usually, it is impractical to speculate about the source of the negative affect but, sometimes, the coding provides a clue about features that are related to it. In either event, it should be concluded that the presence of this kind of very intense irritation creates a disruptive impact on most all of the psychological functioning of the person. It not only tends to be a dominant element in the emotions of the person but it also has pervasive influences on the thinking of the individual. Attention and concentration usually are affected and judgments can be markedly swayed because of the torment that is present.

Case 8 Finding Positive

There is one shading blend (*FM.FT.FY*). It appears to have a situationally related basis (*FY*) that has exacerbated a longer standing sense of loneliness or neediness. It is important to note this blend represents one of *four* texture answers in the record, suggesting that her preoccupation is quite strong. Again, the history does not provide much information about any feelings of loneliness, although she does report a belief that her husband's frequent absence from home is probably related to her problems.

SUMMARIZING FINDINGS CONCERNING AFFECT

Case 6

This 30-year-old woman is entering treatment because of tension and anxiety which sometimes interferes with her work efficiency. She denies being sad or depressed. The referral asks for information about causation, and also questions if there is any evidence of depression. A summary of the findings from this cluster provides considerable information regarding the first question. However, a response to the second question will be more speculative and probably cannot be broached fully until the entire protocol is reviewed.

She is an ideational person (Step 2) who seems to be experiencing distress (Step 4). In fact, she has several characteristics that are common among people who have frequent experiences of affective disruption, such as tension, anxiety, moodiness, or depression (Step 1). She is very consistent in her approach to decision making, possibly too much so at times. Typically, she delays any action until she can consider all obvious possibilities and, when doing so, she prefers to keep her feelings closely controlled and apart from her thinking as much as possible. She does not like to make decisions intuitively and avoids trial-and-error approaches to problem solving, even though such an approach might be obviously preferable in some situations (Steps 2 and 3).

She has a marked tendency to inhibit and internalize feelings. Although this is not unusual for

ideational people, she does this excessively, and when this occurs, a sense of discomfort results that can become cumulative and quite irritating. Usually, people who use this tactic to excess do so because they are uncomfortable with, or even fearful about, emotions (Steps 4 and 5). She tends to avoid emotionally toned situations (Step 6) and often will deal with emotions on a more intellectual level than do most people. This is a form of denial that permits her to avoid dealing directly with the impact of feelings (Step 7).

She works hard to make sure that her own emotional displays are closely controlled, probably too much so (Step 9). This is not unusual for a person who is uncomfortable with emotion and fearful of it becoming overly intense. She is a psychologically complex person (Step 12), which is not surprising for an apparently intelligent person, but her level of complexity is somewhat greater than expected (Step 14). At least some of this unusual complexity seems related to the fact that she is ambivalent about, or confused by, emotion. This confusion is probably rather disruptive at times, and will add to any distress that she may experience (Step 15).

Her complaints of tension and anxiety are not surprising because she goes to such great lengths to avoid and/or control emotions. This sort of over-control can only lead to an existence that is counterproductive to some of her own needs and tends to limit the extent to which she can relate to others effectively.

Case 7

This 28-year-old male complains of chronic depression, and admits to an abuse of alcohol that leads to an "easy" loss of temper and a tendency to be verbally abusive. The referral asks for a confirmation of the depression and recommendations about treatment.

He is an individual who is prone to emotional upsets because of difficulties in social adaptation. His report of being depressed often is probably a translation of the feelings of distress that he has when social failures occur. However, usually they are different than those experienced by

persons with dysthymia or major affective disturbances (Step 1). He has a very marked disposition to avoid complexity and ambiguity by ignoring or denying its presence. He is not very consistent about solving problems or making decisions, preferring to keep things on a simple level. This affects the manner by which he handles emotions, and often he can be inappropriately lax about how he expresses his feelings (Steps 2 and 9).

He seems to experience loneliness or neediness more than do most people, and this probably contributes to incidents of discomfort or distress (Step 4). He appears open to emotional experience, which is a bit unusual for people who like to avoid complexity and ambiguity (Step 6). This openness can be more of a liability than would be the case for most people because he does not control his emotions very well. Routinely, they tend to be much more intense than expected for an adult (Step 9). When considered in the context of his social naivete, it seems likely that he is a rather immature person who tends to be careless or unconcerned about controlling his emotional expressions. As a result, they sometimes will be inappropriately intense and possibly even volatile (Steps 1, 9, and 10).

His situation is made more complicated by the fact that he seems to be an angry person. This is not surprising in light of his immaturity, social naivete, and his occupational failures. This sense of anger probably relates directly to the aggressive outbursts that occur sometimes when he is drinking (Step 11). He is a relatively complex person, more so than might be expected of a person who likes to avoid complexity (Step 12). Some of this complexity is created by the fact that he is, at times, ambivalent about, or confused by, emotion. These experiences probably add to any distress that he may be experiencing (Step 15). His problems with emotional control, and his anger should both be considered as quite important when the issue of treatment planning is considered.

Case 8

This 33-year-old woman has been experiencing bouts of depression for about six months and a re-

ferral has occurred because antidepressant medication does not seem to be having a favorable effect.

She appears to have a very serious affective problem (Step 1). She is the type of person for whom feelings usually play an important role in her thinking and often prompt trial-and-error approaches to decision making (Step 2). However, she is somewhat flexible about using this decision-making style and, often, will identify instances in which it seems better to put aside her routinely intuitive approach in favor of a more ideational approach (Step 3). Ordinarily, she is inclined to display her emotions openly and, usually, is not very concerned about keeping her feelings closely controlled (Step 2), but that does not seem to be the case now.

She is in considerable distress (Step 4) and appears to be trying to avoid emotional confrontations at all costs (Step 6). She seems to be very lonely and feels very helpless (Step 4), and the extent to which she tries to avoid contending with emotions suggests that she is fearful or mistrusting about her feelings and the way that she is accustomed to using them as a guide for her decisions (Step 6). In fact, she often intellectualizes as a tactic to avoid, or at least neutralize, the impact of emotional experiences. The frequency with which she does this is quite excessive, and probably illustrates the extent to which she tries to take flight from her feelings and those imposed on her by the environment. This sort of psychological defense can cause anyone to become vulnerable to emotional disorganization (Step 7).

Currently, she has great difficulty controlling her feelings and, at times, her emotional displays are likely to be inappropriately intense and probably will convey an impression of immaturity and/or impulsiveness (Step 9). Apparently, she is aware of this, and it seems to have led to her efforts to deal with feelings more ideationally than directly (Step 10) that in turn, reduces her overall effectiveness considerably. Usually, she is not a very complicated person (Steps 12 and 13), but situational factors have caused her to become considerably more complex than is customary. This

added complexity only serves to increase her level of emotional distress and creates a considerable burden for her as she attempts to deal with unwanted feelings (Steps 13 and 14). She is uncertain and confused by her feelings (Step 15) and, at times, appears to experience considerable pain that seems related to a long-standing sense of loneliness or neediness (Step 16).

The history offers no evidence of recent loss or trauma that might account for some of these findings. Clearly, the remainder of the record will be important in fleshing out a broader picture of this woman. However, even at this point, it seems important to recommend a more thorough review of her marriage.

RESEARCH AND CONCEPTS RELATED TO AFFECT VARIABLES

The DEPI and the CDI

The challenge of identifying variables that might be useful in accurately identifying those cases in which depression *per se* is a major issue has been complicated by two problems. First, depression as a complaint or symptom is very common among psychiatric subjects. Depression is a more socially acceptable symptom than strange thinking, poor reality contact, or sexual dysfunctioning, and thus it is common for patients readily to concede to the experience. As a consequence, many patients are admitted to hospitals, or to outpatient care, with the diagnosis of depression, and the initial focus of treatment centers on this feature. Second, unlike the marked features of schizophrenia, depression may in fact, be a major element in a variety of syndromes, ranging from reactive distress to the schizoaffective disturbance. As a consequence, the search for a cluster of variables that would discriminate the markedly depressed person from those who are simply dissatisfied, unhappy, or distressed has required the screening of different groups. These include dysthymics (neurotic depression), unipolar depressives, bipolar disorders, the schizoaffective disturbance, plus a rather significant population of persons who are somewhat

helpless in contending with the complexities of their environment.

The original DEPI consisted of five variables that did discriminate quite effectively between depressive groups and the three control groups (Exner, 1986), but the total yield was far from spectacular. It did correctly identify about 70% of the persons from dysthymic and unipolar groups, but the false positive rate among the control groups was considerable, ranging from 30% of nondepressed inpatients, to nearly 10% of the nonpatient sample. The false negative rate was also unacceptably high, often exceeding 60% for some groups of clearly depressed adult patients and even greater when depressed children were studied (Lipovsky, Finch, & Belter, 1989).

The problem was exacerbated by the changing definitions of depression and affective disorders that occurred between 1978 and 1990. During that period, the literature concerning affective disturbances often was marked by contradictory positions and many of the research findings, based on non-Rorschach sources, were equivocal. Obviously, depression, as a complaint, continues to rank among the most commonly presented symptoms, but even the most stringent advocate of the *DSM* position will openly admit that findings of homogeneity among depressed patients are, at best, scarce.

For instance, Wiener (1989) presented an excellent review of the ambiguity, inconsistency, and overgeneralization that is evident among the applications of the term depression, and offered harsh criticism for the *DSM* approach to defining features of depression. He noted, "Depression is used indiscriminantly as a label for a state, trait, sign, syndrome, disease, as a category name and, at the same time, as an explanatory concept." Much of the problem seems to occur because many view depression as having a homogeneous psychological and/or biological predisposition, and several diversified concepts of depression have been put forth, based on this assumption (A. Beck, 1967; Blatt, Quinlan, Chevron, McDonald, & Zuroff, 1982; Brown & Harris, 1978; Chadoff, 1974; Kendell, 1976; Millon & Kotik, 1985; Seligman, 1975;

Abramson, Metalsky, & Alloy, 1989). Some identify the developmental years as the breeding ground from which a predisposition evolves, while others focus on faulty attribution, negative self-concept, adverse social interaction, or poor psychobiology. Whichever cause, or group of causes are identified, the notion of homogeneity persists. Yet, the criteria for the *DSM* diagnostic categories tend to stray far from the notion of homogeneity. Instead they reflect an amalgam of signs and symptoms from which any of a seemingly endless number of combinations will yield the same diagnosis. Using the *DSM-III-R* as a basis for illustration, Wiener (1989) pointed out that, provided a dysphoric mood is present, there are 286 possible combinations of signs and symptoms that can lead to the diagnosis of Dysthymic Disorder.

A review of the positions and findings regarding depression easily lends itself to the conclusion that there are at least three different kinds of people who tend to be diagnosed as being depressed, or having an affective disorder, (1) those who are emotionally distraught, (2) those who are cognitively pessimistic, lethargic, and self-defeating in their behaviors, and (3) those who are helpless in the face of contending with a complex society. Obviously, these are not discrete states and considerable overlap can be expected, but some of the positions and findings do tend to support the hypothesis that they reflect *primary* features in the psychological organization of the person.

In 1986, that postulate formed the basis for a series of studies with the tentative objective of creating three DEPI's to replace the original index. The first step involved an effort to subdivide 1,400 protocols, collected from persons diagnosed as affectively disturbed, into three broad groups using nontest data as the basis for the sort. The groups were arbitrarily defined as (1) emotionally depressed, (2) cognitively depressed, and (3) helpless. The sort was impossible for more than 650 cases because of insufficient data, but three groups ultimately were formed, each containing more than 200 subjects. Factor analyses yielded interesting but unclear findings. A five-factor

solution generated two common factors for all three groups, two factors common to two groups but not the third, and one factor that made no sense at all. At best, the results suggested that the groups were probably different in some ways. The next steps involved a series of MANOVA's, correlational analyses, and discriminant function analyses.

The data for the first two groups (emotional and cognitive) overlapped considerably, but the data for the third group were much more discrete. No matter what tactic was employed, it was impossible to disentangle the first two groups and, consequently, they were collapsed into a single group ($N = 471$) that was used as a target sample from which to create a revised DEPI. This was done using a series of discriminant analyses and contingency tables. The third group (helpless $N = 213$) was held out to be used as a sample against which results might be tested. The findings revealed that at least 15 variables must be considered if the presence of depression or an affective disturbance were to be identified. Those 15 variables form the basis for seven tests that constitute the revised DEPI.

The first test of the revised DEPI, focused on the sample of subjects that had been categorized as helpless, and the results were very disappointing. Only 36 of the 213 subjects (17%) showed values of 5, 6, or 7. This seemed very striking because the final contingency table for the DEPI indicated that values of 5, 6, or 7 correctly identified 402 of the 471 subjects (85%) in the target sample that had been used to formulate the index. Ultimately, the helpless sample was used for the development of the CDI, which has proved to be a very useful index, either taken alone or reviewed as a secondary data source when considering the issue of depression. A second test of the revised DEPI was accomplished by using the 663 cases that could not be subdivided into the exploratory groups (emotional, cognitive, helpless) because of a lack of data. About 81% (539) had values of 5, 6, or 7, and 469 (71%) had values of 6 or 7.

A review of revised DEPI values for other groups yields varied results. For instance, the

"false positive" (5 or more) rates among samples of adult nonpatients range from 5% to 17%, and between 2% and 5% for samples of nonpatient children. In a sample of 193 inpatients, diagnosed by *DSM-III-R* criteria as having a major affective disturbance, and whose Rorschach's have *Lambda* values less than 1.0, 73% are positive on the DEPI, with slightly more than half having values of 6 or 7 (Exner, 2001). In a similar sample ($N = 86$), whose Rorschach's have *Lambda* values of 1.0 or greater, 63% have positive DEPI values, but almost all have values of 5 (Exner, 2001). Positive DEPI values have also been noted in the records of about 30% of inpatient schizophrenics who have *Lambda* values less than 1.0, and about 22% of inpatient schizophrenic records that have *Lambda* values of 1.0 or greater (Exner, 2001). Findings such as these have led to the conclusion that positive DEPI values are probably best interpreted as representing an affective problem rather than specifically equating positive values with diagnostic categories.

Ball, Archer, Gordon, and French (1991) were among the first to offer such a caution. They studied the original and revised DEPI's with 166 children and adolescents who had depressive features and found that the predictive efficacy of the revised DEPI was only about 35%. They strongly recommended that the DEPI not be used to diagnose depression in children and adolescents. Likewise, Carlson, Kula, and St-Laurent (1997) have reported negative results with the DEPI when attempting to identify 40 inpatients diagnosed as major depressive disorder. Jansak (1997) compared 60 adults with depressive disorder to 30 nondepressed controls and reported that extratensives are much more likely to have elevated DEPI scores than either ambiterms or introverts. In that study, the composite of DEPI and CDI correctly identified 72% of the persons with depressive disorder.

The CDI was a direct by-product of the research leading to the revision of the DEPI. As noted earlier, the revised DEPI was not effective in identifying very many of the subjects from the depression-affective disorders pool who had been categorized as "helpless." Consequently, the

records from the helpless group that had a DEPI value of less than 5 ($N = 177$), were combined with the 69 false negatives from the original target group to create a new sample ($N = 246$). It was reviewed using a series of intercorrelational and discriminant function analyses.

The group did prove to be reasonably homogeneous for a grouping of 11 variables. Several mixtures of those 11 variables were tested and ultimately, it was determined that they yielded the greatest efficacy when used in a composite to test five issues and assigning one point for each issue proving to be positive. Thus, by using critical values of 4 or 5, 194 of the 246 subjects in the new target group (79%) were correctly identified, including 143 of the 177 subjects in the helpless group (81%). When this new index was calculated for the group of 663 subjects from the depression-affective disorders pool who had not been able to be subcategorized for the original analyses leading to the DEPI, 219 (33%) were positive, including 93 of the 124 subjects who were negative on the DEPI.

The fact that 79% of subjects with affective disorder diagnoses, who were not positive on the DEPI, obtained values of 4 or 5 on this index seemed rather compelling. At first glance, the variables in the new index appeared to be a strange mix but, on closer study, it was apparent that most have some relationship to social/interpersonal activity.

A review of scores on the CDI for several other groups were then calculated as a logical next step in evaluating its usefulness. The results indicated that 4% of a nonpatient adult sample had values of 4 or 5, although the percentages were higher among nonpatient children (6% to 24%). Between 20% and 25% of a schizophrenic sample had values of 4 or 5, as did nearly 50% of nonadjudicated character disorders. The highest percentage of positive indices were found among three groups, inadequate personalities (88%), alcohol and substance abusers (74%), and adjudicated character disorders (69%). The collective findings led to the decision to select the label Coping Deficit to best describe the index.

The substantial percentages of positive CDI's among the various psychiatric groups made it

reasonably clear that the CDI is not a second depression index. Conceptually, the CDI appears to afford a measure that tends to identify those who have coping limitations or deficiencies. Additional support for that postulate was found in the data for 440 outpatients beginning treatment for the first time. Initial interviews for those patients were coded for a variety of variables, including "major presenting complaints." The presenting complaints were coded as: (1) depression, (2) anxiety, (3) ideational control, (4) emotional control, (5) somatic, and (6) interpersonal difficulties, and as many as three were entered for each person. A sorting program was used to create two groups. The target group included all subjects for whom item 6 (interpersonal difficulties) had been coded positive, and a control group consisted of the remaining subjects for whom item 6 had not been coded as being positive among the presenting complaints. The CDI was calculated for the 440 records and 125 had values of 4 or 5. The distribution of the 125 positive CDI records is shown for each group in Table 16.2.

These data do not mean that the persons in the target group actually did have more interpersonal problems than those in the other group, for that is unlikely. However, the data do suggest that the individuals who complained about interpersonal difficulties were apparently more acutely aware of those problems.

Although the CDI is not a depression index, the presence of a positive CDI among individuals diagnosed as being depressed seems to have considerable relevance for treatment planning. For

instance, a group of 315 first admission inpatient depressives, consisting of approximately half who were admitted to private psychiatric hospitals and half who were admitted to public hospitals, included 237 (75%) who had DEPI values of 5 or more, and 80 of those 237 (34%) also had CDI values of 4 or 5. In the total sample, 138 (44%) of the 315 records had CDI values of 4 or more. This means that 58 of the 78 persons (74%) who had DEPI values of less than 5 (false negatives), had CDI values of 4 or more. Stated differently, 25% of the total group were positive on both the DEPI and CDI; 50% were positive on the DEPI but not on the CDI; and 18% were positive on the CDI but not on the DEPI. Taken together, the two indices identify slightly more than 93% of the total group.

None of the 315 individuals remained hospitalized for longer than 42 days. Six-month posthospitalization data were available for 271 of the 315 subjects in the sample. Those data reveal that 72 of the 271 were rehospitalized during that period. A review of the baseline records for those 72 individuals reveals that 33 were positive on both the DEPI and CDI, 24 were positive on the CDI but not the DEPI, and 13 were positive only on the DEPI. Two of the relapsers had not been positive on either the DEPI or CDI. In other words, 79% of the relapsers had been positive on the CDI at the time of their first admission. This is a significantly greater proportion than the 43% of the persons in the original sample who were positive on the CDI. Many variables, both internal and external, contribute to relapse and it would be an error to assume that the 11 variables that make up the CDI form a nucleus of "best" predictors. Nevertheless, the disproportionately high percentage of relapsers who were positive on the CDI suggests that issues of interpersonal skills and adjustment may not have been adequately addressed during hospitalization or in posthospitalization outpatient care.

Interestingly, social deficits reflected by a positive CDI seem to be altered rather easily by well planned treatment. The results of two treatment effects studies (Weiner & Exner, 1991; Exner & Sanglade, 1992) show that 46 of 70 patients (66%) who had CDI values of 4 or 5 at the

Table 16.2 The Frequency of CDI Values of 4 or 5 Among Two Groups of Outpatients Sorted on the Basis of Interpersonal Complaints.

	Interpersonal Complaint <i>N</i> = 204		No Interpersonal Complaint <i>N</i> = 236	
	<i>N</i>	Percentage	<i>N</i>	Percentage
CDI = 4	36	18	18	8
CDI = 5	61	30*	10	4
Total Positive CDI	97	48*	28	12

* = significantly different from other group ($p < .001$).

onset of several different types of treatment were no longer positive on this index in a second Rorschach administered after 8 to 14 months of intervention. Conversely, very brief treatments, that is, ranging over two to three months appear to have little effect on this coping deficit (Exner & Sanglade, 1992). Thus, while a positive CDI finding harks poorly for the present and immediate future of the person, the prognosis for change is quite positive for most such people, given the appropriate treatment direction and opportunity.

THE ERLEBNISTYPUS (*EB*) STYLES

Rorschach (1921) considered the *Erlebnistypus* (*EB*) to be one of the most important findings from his research. He proposed that it reflects the underlying preferential response style of the individual. His reason for weighting the chromatic color responses (0.5 for *FC*, 1.0 for *CF*, and 1.5 for Pure *C*), is not completely clear. Apparently, he noted that chromatic color answers occur with greater frequency than *M* responses and believed that weights should be used to equalize those frequencies and, at the same time, differentiate the color answers in a way that accounts for the use of form.

Rorschach hypothesized that when the *EB* ratio is distinctly weighted in the *M* direction, the person is more prone to use his or her inner life for basic gratifications. He used the term introversive, but was careful to note that it is not the same as the Jungian concept of introversion. Whereas the Jungian introvert is generally conceptualized as being distanced from people and frequently perceived as isolated or withdrawn into himself, Rorschach's notion of introversiveness focuses on the manner in which the resources of the person are used, but does not necessarily imply direct overt behavioral correlates. Thus, introversive persons may be outgoing in their social relationships but, internally, they are prone to use their inner life for the satisfaction of their important needs. At the opposite pole are the extratensives who are prone to use the interactions between themselves and their world for gratification of their more basic needs.

They manifest and exchange affect in their external world more routinely than introversives. Rorschach postulated that the ambitent (erroneously, as it turns out) may be the most flexible of the three types with regard to the use of resources for obtaining gratification.

Rorschach perceived the *EB* as representing a constitutionally predisposed response tendency, emphasizing that the introversive and extratensive features are not opposites, but simply psychological preferences. He believed that the style is a relatively stable psychological feature of the individual, but also noted that various circumstances, such as stress could alter the response preference temporarily, or that some treatment effects might cause a more permanent alteration. He also postulated that when the *EB* displays very low frequencies, such as 0:1 or 1:0, a coarctation has occurred in the development or functioning of the style, or in instances of psychopathology, may reflect a rigid defensive effort in which an almost complete paralysis of affect forms the basis of the effort.

As research has accumulated, much of it supports Rorschach's basic postulates concerning the introversive and extratensive styles. He was possibly too expansive in assuming that either style was directly linked to the achievement of gratification, but the psychological tactics involved in each style are those typically used to gain need reduction or gratification, and the consistency of their use probably does have some secondary gratifying elements because the person is doing that with which he or she is psychologically accustomed and comfortable.

The literature concerning the *EB* is varied and sometimes confusing because of a tendency by some to equate the notions of the introversive or extratensive styles with the behavioral expectations implied in the Jungian model of introversion-extraversion, even though Rorschach disclaimed any such relationship (Bash, 1955; Klopfer, Ainsworth, Klopfer, & Holt, 1954; Mindness, 1955). Most investigations have focused on the two basic styles, introversive and extratensive, and some very clear differences between the two

groups has been confirmed. Goldfarb (1945, 1949) found that children raised from very early life under impersonal institution conditions show marked extratensive features. Rabinovitch, Kennard, and Fister (1955) report significant EEG differences between extreme *EB* styles and suggest that introversive subjects show greater indices of "cortical harmony." Singer and Spohn (1954) and Singer and Herman (1954) report evidence for a relation between styles and the frequency of motor activity during a waiting period. Singer (1960) and Singer and Brown (1977), in literature reviews concerning *EB*, suggest that support clearly exists for the postulate that two dimensions of constitutional temperament are represented in the ratio, one representing a capacity for internal experience and the second reflecting activity or motility. Molish (1967) suggests, in his literature review, that the elements illustrated in the *EB* have critical directing effects on most all nuances of personality and their related correlates of behavior. Both Singer and Molish cite studies demonstrating that introversives respond differently than extratensives in a variety of behavioral situations, such as problem solving, stress situations, and environmental responsiveness.

The directionality of the *EB* appears to be remarkably stable for the adult. Exner, Armbruster, and Viglione (1978) found that 77 of the 100 nonpatient adults participating in their three-year retest study were either introversive or extratensive in both tests. They used a two-point or greater difference between *M* and *WSumC* as the criterion for differentiation. In the retest, only two of those 77 subjects had changed directionality. Similarly, 39 of the 50 nonpatient adults participating in the one-year retest had *EB*'s in the first test in which one side of the ratio was 2 or more points greater than the other side. After one year, 38 of the 39 continued to show a difference of at least 2 points in the ratio and none of those changed directionality.

The directionality of the *EB* is far less stable in children over long intervals. The majority of children, ages 5 through 7, show an extratensive style, whereas 10% or less show an introversive style.

Also, the percentage of children who fall into the ambivalent range is significantly larger through age 14 than for nonpatient adults. Exner and Weiner (1982) found that only 12 of 26 extratensive 8-year-olds continued to be extratensive at age 14, whereas seven of nine introversive 8-year-olds continued to manifest that style at age 14. Exner, Thomas, and Mason (1985) found a considerable variability in the *EB* style for 57 subjects who were tested five times at intervals of two years, beginning at age 8. The composite of normative, reliability, and longitudinal data suggest that if the preferential features of introversiveness or extratensiveness become enduring characteristics of the personality, the stabilization will probably occur prior to early adulthood, and for most people during early to mid-adolescence.

The nonpatient data (see Chapter 12) indicate that slightly more than 70% of adults are either introversive or extratensive, the proportions of each being nearly the same, 19% are ambivalent, and the remaining 10% have an avoidant style. This distribution is quite different than found among patient groups. For instance, an inpatient schizophrenic group, consisting of 200 persons with *Lambda* values less than 1.0, includes 71% who are introversive, 10% who are extratensive, and 19% who are ambivalent (Exner, 2001). A group of inpatient depressives, comprised of 193 persons with *Lambda* values less than 1.0, includes 27% who are introversive, 19% who are extratensive, and 54% who are ambivalent (Exner, 2001). A sample of 535 outpatients reveals that 28% are introversive, 14% are extratensive, 21% are ambivalent, and 38% have an avoidant style (Exner, 2001). A review of data for 100 outpatient protocols, having *Lambda* values less than 1.0, taken from persons rated by their therapists as having "noticeable" hysteroid features, reveals that 54 have an extratensive style, 11 have an introversive style, and 35 are ambivalent (Exner, 1993). These data are consistent with those previously reported for nonpatient and psychiatric groups (Exner, 1978, 1990) and support the postulate that, contrary to Rorschach's notion, the ambivalent is not the more flexible or adaptive of the

three types. On the contrary, the ambivalent appears to be much more vulnerable to intra- or interpersonal problems. Findings from several other studies also support this position. For instance, when the retest reliabilities of the 100 nonpatients were reviewed by *EB* style, the ambivalents in the group show consistently lower retest correlations for most variables than do either of the other groups (Exner, 1978). This finding suggests less consistency in coping behaviors.

In a problem-solving study, involving 15 introverts, 15 extraverts, and 15 ambivalents (Exner, 1978), the introverts were found to perform the fewest operations before reaching the solutions. The extraverts performed more operations, but were able to achieve solutions to the problems in about the same amount of time as the introverts. The ambivalents performed more operations than the extraverts, required significantly more time to achieve solutions than either the extraverts or introverts, and repeated more operations and made significantly more errors in the operations. These data indicate that it is impossible to distinguish whether the introvert or extravert styles might be the more preferable or efficient, but it is clear that the ambivalents are the least efficient and least consistent in their behavioral patterns. These findings are consistent with those reported by Rosenthal (1954). He also concluded that, although the introvert and extravert styles of problem solving are clearly different, both are equally proficient in terms of achieving solutions.

Exner and Murillo (1975) studied 148 inpatients for a period of one year after their discharge from hospitalization. The Rorschach was administered at discharge and the patients subdivided into cells on the basis of the *EB* and for whether *EA* was greater than *es*. Forty-one of the patients were rehospitalized within the first 12 months. The discharge test data revealed that 49% were ambivalents, and nearly 70% had values for *es* that were higher than *EA*. Exner (1978) also followed 279 outpatients from the beginning of their treatment through a period of 28 months to

evaluate changes as a function of different types of intervention. Seven modes of intervention were involved, ranging from dynamic psychotherapy to biofeedback. Evaluations concerning progress were collected at 90-day intervals from the patients, therapists, and significant others, and each patient was retested each 9 to 12 months, regardless of whether he or she had terminated treatment. The lowest mean ratings, concerning progress or improvement occurred for the ambivalent subjects at each 90-day interval during the first 12 months, irrespective of type of treatment.

Weiner and Exner (1991) have noted that 32 of 88 patients in long-term treatment, involving a dynamic model of therapy, were ambivalents at the onset of treatment. In the second retest, taken 27 to 31 months after treatment began, only nine continued to be ambivalents. Conversely, 38 of 88 patients studied, who were treated using various short-term methods usually lasting 18 months or less, were ambivalents at the onset of treatment. In the second retest, administered between 27 and 31 months after treatment began, and at a time when all had terminated treatment, 28 continued to be ambivalent. Somewhat similar findings are noted in two groups of 35 patients each studied by Exner and Sanglade (1992) with regard to brief and short-term treatment. In the brief treatment group, 18 of the 35 patients began as ambivalents. In a retest, administered eight to 12 months after the onset of therapy, 17 of the 18 continued to display the ambivalent feature. On the other hand, 19 of 35 patients, treated with short-term therapy, were ambivalents in their pretreatment records, but only eight continued to display the ambivalent feature in the 8 to 12 months retest. These findings appear to support the notion that the ambivalent, given the appropriate developmental framework, does become either introvert or extravert.

When the data for Rorschach variables are considered with regard to the three *EB* groups for both patients and nonpatients, substantial differences occur *not only* for human movement and chromatic color answers, but also for at least 17 other interpretively important variables. They

include *EA* and *Adj es*, animal and inanimate movement, the proportion of blends, diffuse shading, color-shading blends, the *Afr*, the special scores *AB*, *COP*, and *CP*, the sum of human contents, and the specific contents of blood, explosion, fire, and food. It is for this reason that normative data must be differentiated by *EB* style and for *Lambda* when expectancies are established for purposes of interpretation. The overall configuration of data for each group is highly consistent. Introversive patients and nonpatients are highly similar to each other and very different from the groups of extratensive patients and nonpatients, and both groups of introversives and extratensives are quite different from ambients.

Although there is no evidence to suggest that the introversive person dislikes or avoids emotions, there are data to indicate that the introversive attempts to exert greater control of feelings during ideational operations. Blatt and Feirstein (1977) found that introversive subjects show greater cardiac variability during problem solving. Exner, Thomas, and Martin (1980) used a six-channel physiograph to record cardiac and respiratory rates and GSR, taken at the scalp, for 30 nonpatient adults while working on two problems from the Logical Analysis Devise (Langmuir, 1958). Fifteen of the participants were clearly introversive ($M > WSumC$ by 4 or more points) and 15 were clearly extratensive ($WSumC > M$ by 4 or more points). All had D Scores of 0 or + 1. A baseline recording was taken during a five-minute resting period following the attachment of electrodes. The participant was given instruction concerning the problems and permitted to work for up to 10 minutes on a trial problem for purposes of adaptation. The target recordings were then taken for the next 30 minutes, during which the participant worked on the two problems, the second of which was much more difficult than the first.

The findings for the cardiac activity are similar to those of Blatt and Feirstein, with persons in the introversive group showing more variability, and with a general tendency for the rate to reduce. During a three-minute rest period between prob-

lems there was significantly less variability, and the rate tended to increase. A pattern of decrease was found for the respiratory rate of the introversives, which reversed during the three-minute rest interval, and the GSR values also tended to become lower throughout the entire 30-minute session. The extratensive group showed significantly less cardiac and respiratory variability during the activity phase, with both tending to increase shortly after beginning the task and remaining at a significantly higher level than baseline. During the three-minute rest interval, the cardiac rate showed more variability than for the introversive group and tended to become lower, as did the respiratory rate. The GSR values for the extratensives tended to increase gradually during the first 10 minutes of the task, and remained significantly higher than the baseline throughout the 30-minute interval.

There is some evidence to suggest that extratensives are more susceptible to distraction than introversives. Chu and Exner (1981) studied 20 introversive and 20 extratensive subjects, all with D Scores of 0, for speed and accuracy in adding columns of four-digit numbers under two conditions. All of the participants were juniors or seniors in college, majoring in Business Administration, and the groups were comparable for cumulative grade point average. In one condition, subjects worked in a quiet room, whereas in the second, they worked in a room with interference conditions created by random noises and flashing strobe lights. The groups did not differ for the number of columns completed or for number of calculation errors under the quiet condition, but the introversive group completed more columns and made significantly fewer calculation errors than the extratensive group under the interference condition.

People with an extratensive style appear to go through many more operations when problem solving, even though their times to decisions or solutions are not significantly different from introversives. They seem to be trial-and-error oriented, willing to test out possibilities and risk making errors as a trade-off for the information

they receive. Logically, it appears that they rely more on external feedback than do introversives in decision operations. However, the data supporting that assumption are sparse and indirect, and some data suggest that the postulate is incomplete, oversimplified, or erroneous. For instance, even though the extratensives use more operations in problem-solving activities, a variety of studies have failed to establish a relationship between *EB* style and various measures of Field Dependence and Field Independence. Similarly, frequency data concerning internal versus external Locus of Control are about the same for nonpatient introversives and extratensives. An extension of the hypothesis concerning the use of external stimuli by extratensives (which does have some support) is that they are more prone to invest affect into their decision operations and, as a consequence, are more likely to use interaction with the world as a source of information and/or gratification. In other words, they are more oriented to seek and/or respond to external stimuli when formulating coping responses.

To illustrate, Exner and Thomas (1982) videotaped structured seven-minute interviews of 15 extratensive and 15 introversive nonpatient college students who were volunteers participating in another study. The interviews were all conducted by the same person and followed a questionnaire format concerning attitudes about academic requirements. The tapes, replayed without sound, were rated for postural-gestural behaviors, such as leaning forward, chair turning, arm movements, hand gestures, and such, by three raters who had no familiarity with the nature of the study. The mean rating for the extratensive subjects was 15.64 ($SD = 4.61$) versus a mean of 8.22 ($SD = 4.07$) for the introversive group ($p < .02$).

THE AVOIDANT (HIGH LAMBDA) STYLE

Data concerning *Lambda* suggest that it relates to a person's psychological involvement in a stimulus field (Exner, 1978, 1993). When *Lambda* is low it indicates that the person may be more involved than expected. This can occur for any of a

variety of internal or external factors. Conversely, when *Lambda* is substantially above average, that is, greater than 0.99, it indicates an orientation to reduce stimulus situations to their most easily managed level. This usually requires a narrowing or simplification of the stimulus field. In doing so, the individual tends to minimize the importance of, and/or ignore some elements of the stimulus field. It is a form of avoidance that may be transient or may represent a more persistent form of coping with new situations. In either, there is a risk that resulting behaviors may be less effective in terms of the requirements of the situation and, at times, can even run contrary to social expectations.

The behaviors of persons who have an avoidant style often convey the impression that the simplification occurs at the input level, that is, by using a sort of psychological tunnel vision the person does not process all of the significant elements of a field. But this explanation does not seem viable in light of the fact that, as a group, persons who have high *Lambda* values do not show any significant problems in processing, nor do they show any greater frequency of negligent processing. A more logical explanation suggests that the simplification is a defensive process through which some significant elements of a field are judged as having little importance when weighed against the needs of the person plus the perceived demands of the situation. As such, those elements are afforded little or no attention in the formulation of responses.

Unfortunately, there is no easy way to distinguish between the low *R*, high *Lambda* record that illustrates a defensive resistance to the demands of the test situation from the low *R*, high *Lambda* record that reflects a valid indicator of an avoidant coping style. Obviously, the larger the number of responses, the sturdier the cutoff of > 0.99 becomes in identifying the avoidant style, but if the record is brief but within acceptable limits, such as 14, 15, or 16 answers, the interpreter might consider the possibility of extending the critical cutoff value upward, to as much as 1.1 in the instance of adults or even to 1.2 for the

record of a young child. This is not a "hard-fast" rule, and the ultimate judgment should be made in light of whether or not the remainder of the protocol, that is, those answers that are not simply Pure *F* answers, is marked by considerable richness and/or complexity. If it is, the extended limits are probably applicable, but if it is not, the 0.99 cutoff probably is best retained to define the style.

The antecedents of the avoidant style appear to vary. In some cases it is simply the product of a developmental lag that has caused the immaturity and social ineptness of the child to persist into adulthood. An avoidant orientation is not uncommon among nonpatient children. For instance, approximately 11% to 17% of nonpatient children between the ages of 5 and 12 show this feature, but after age 12 the proportions tend to diminish. It appears in between 9% to 12% of nonpatients between the ages of 13 and 16, and about 10% of nonpatient adults.

For the young child, the tactic of avoidance or simplification is probably quite important at times because it permits them to deal with a more easily managed world. But this tactic becomes less important as the capacity for conceptualization increases and complexity becomes less threatening. In some cases, the persistence of the avoidant style into adolescence and adulthood seems to be generated by a sense of social deprivation and an excessive preoccupation with need gratification. In other cases, the style becomes part of the product of negative sets toward the environment and becomes a tactic through which the person manifests this negativism.

Regardless of the origins of the style, its presence creates a chronic risk factor. The tendency to avoid can lead to some behaviors that fail to meet the demands of a situation, or that may interfere with the most well-intended efforts toward social adaptation. On the other hand, an avoidant style, albeit defensive, can be adaptive. For example, persons with limited intelligence, flexibility, or stress tolerance may find it important to avoid the myriad of complexities posed by the world in everyday life. Narrowing stimulus fields in ways that make them more easily managed can be

highly beneficial to such people, provided that, in doing so, they do not violate social rules and expectations in ways that will breed conflict between themselves and their world. Exner, Boll, Colligan, Stischer, and Hillman (1996) studied 60 adult inpatients, diagnosed as having a mild or moderate closed head injury, who were administered the Rorschach three to five weeks after admission. An avoidant style was noted in 44 of the 60 (73%) cases. Exner et al. concluded that the higher than expected proportion of Pure *F* answers represents a form of economizing that probably served as an asset to individuals struggling to recover earlier levels of functioning.

There is little doubt that Pure *F* responses do correlate with a kind of psychological economizing. Rorschach (1921) was the first to note this and suggested that Pure *F* answers related to the attention-concentration features of the person's thinking. S. Beck (1945) and Klopfer et al. (1954) have implied that Pure *F* relates to a form of "affect delay," agreeing to some extent with Rapaport, Gill, and Schafer's (1946) notion that decisions related to the selection of Pure *F* responses involve formal reasoning. All three suggest that the stimulus properties of the blots may create some affective and/or conflict state, and the decision to select a Pure *F* answer is a kind of resolution to the problem. Rapaport suggested a parallel between the notion of a conflict-free sphere of ego functioning and the decision to select a Pure *F* answer indicates a form of defensiveness. Neither Beck nor Klopfer accepted this position. Instead, they argued that affect and/or conflict may be present during the decision process, but that it is controlled by the more deliberate and conscious operations.

In the developmental studies of Ames, Learned, Metraux, and Walker (1952) and Ames, Metraux, and Walker (1971), the normative data of Exner and Weiner (1982), and the longitudinal study of Exner, Thomas, and Mason (1985), a relatively high proportion of Pure *F* answers are found in the records of children and adolescents, with that proportion decreasing as age increases. Klopfer interpreted this as a form of rigidity, reflecting the

inability of the child to exhibit emotion and/or conflict without fear or reprisal. S. Beck (1944), Paulsen (1941), and Swift (1945) have all reported that the proportion of Pure *F* has a significant relation to intelligence. They noted that more retarded children give significantly lower frequencies of Pure *F*. Significantly lower proportions of Pure *F* have also been noted among epileptics (Arluck, 1940). Rabin, Papania, and McMichael (1954) report that the proportion of Pure *F* increases under intoxication, but the quality of the responses decreases. Buhler and LeFever (1947) report that alcoholics generally give a proportionally higher frequency of Pure *F* answers than do "psychopaths." Henry and Rotter (1956) found that more Pure *F* answers are produced by individuals who have knowledge of the purpose of the test. Hafner (1958) reports that when people are instructed to respond as quickly as possible, a significantly lower proportion of Pure *F* answers occur. The composite of these data appear to indicate that when the individual is in the more defensive position, he or she is prone to increase the number of Pure Form answers. The data also suggest that when the person is unable to promote the necessary delays required for the formulation of the Pure *F* answer (as in the organic or characterological style prone toward impulse display), the proportion of Pure *F* answers will be proportionally lowered. The notion that Pure *F* has an economizing element is supported indirectly from studies of the more severe psychopathologies. Sherman (1955), for example, notes that the incidence of Pure *F* is relatively lower among the acute schizophrenics, a phenomenon that he interprets as experiencing much stress as well as struggling for some solution to the crisis state. Kelley, Margulies, and Barrera (1941) have reported a significant increase of the Pure *F* frequency after one ECT treatment. Rapaport et al. (1946) have noted a significantly greater proportion of Pure *F* answers among paranoid schizophrenics than other types of schizophrenia. Goldman (1960) has found that recovering schizophrenics tend to give significantly higher proportions of Pure *F* than occurred prior to remission. Exner and Murillo (1973)

reported that the Rorschachs of 53 schizophrenics contained significantly higher *Lambda* values than those in the admission protocols. In another study (Exner, 1986), 109 patients, approximately half of whom had been diagnosed as schizophrenic, were evaluated at admission and again 8 to 10 weeks after discharge of hospitalization. A significant increase in the proportion of Pure *F* was found after discharge. Exner and Murillo (1977) found that schizophrenics who remained out-of-hospital for a period of one to three years had significantly higher *Lambda* values at discharge than did schizophrenics who were readmitted during the first year after discharge.

Whereas most adult nonpatients tend to give between 25% to 40% of Pure *F* responses in their records, the proportions of Pure *F* are often higher among those persons who have histories of a social or antisocial behavior. For instance, Exner (1990) reported that the average *Lambda* for a sample of 180 adults with character problems was 2.12 ($SD = 2.39$). About 68% of those individuals had *Lambda* values greater than 0.99, and more than one-half of the sample has been involved at least once in legal action. Gacono, Meloy, and Bridges (2000) noted that 51% of a group of pedophiles and 38% of a group of psychopaths have avoidant styles. Bannatyne, Gacono, and Greene (1999) did an archival study of the Rorschachs and MMPI-2's for 180 forensic patients, divided into three groups, paranoid schizophrenics, undifferentiated schizophrenics, and schizoaffective patients. The mean *Lambda* for the total sample was 1.4. Using an *F%* calculation instead of *Lambda*, to avoid the skewness and kurtosis problems often noted in *Lambda* distributions, they found a significant correlation between the MMPI-2 *L* scale and the *F%*. They interpret their finding as suggesting that those with high MMPI-2 *L* scores and high *F%*'s have a simplistic problem-solving style that avoids engagement with the task.

THE AFFECTIVE RATIO (AFR)

Both Klopfer and Kelley (1942) and S. Beck, Beck, Levitt, and Molish (1961) postulated that

the number of responses to the last three cards, as contrasted with the *R* to the remaining cards, gives some index of the "affective" responsiveness to one's world. Although they disagreed on the method for calculating this proportion (Klopfer used a 8–9–10% and Beck devised the Affective Ratio), they agreed on the basic principle that when the proportion of *R* to Cards VIII, IX, and X is high, the person is regarded as affectively responsive and, when the proportion is low, the person is affectively guarded and/or withdrawn from affective stimulation.

Several early studies addressed this postulate but, generally, reported negative findings (Sapenfield & Buker, 1949; Dubrovner, VonLackum, & Jost, 1950; Allen, Manne, & Stiff, 1951; Perlman, 1951; Meyer, 1951). Unfortunately, most of those works were marked by flaws in design, such as either using a group administration technique, or a test-retest method. Baughman (1959) investigated the stimulus features of the figures by using several variations of the blots. Among his findings is the fact that participants in the group tested with the standard Rorschach gave nearly 200 more responses than did those tested with a totally achromatic version, and the bulk of the difference was created by more answers having been given to the five figures containing chromatic color. Exner (1962) used a matched groups design, administering one group the standard Rorschach and the second group an achromatic version. The results demonstrate that the colored cards of the standard series stimulate a greater productivity to each of the last three cards. Similar results have been reported by Silva (2001). Although these findings lend no direct support to the color-affect hypothesis, they do indicate that color, as a stimulus, has a substantial impact on the formulation of answers.

The *Afr* is one of the more intriguing variables in the test because it is difficult to establish a sound conceptual linkage that easily explains why the empirical data concerning it fall as they do. The retest correlations for the *Afr* are remarkably high. As noted in Chapter 11 (see Tables 11.2 and 11.3), they range from the mid .80's to low .90's

for both nonpatient children and adults retested after a brief interval, and in the same range for adults retested after lengthy intervals. Findings such as these make it difficult to discount the notion that some form of style is involved. Much of the conceptual intrigue concerning the *Afr* generates from the fact that Cards VIII, IX, and X are the only totally chromatic blots in the series.

Exner (1978) subdivided the 100 nonpatient adults retested after three years (Exner, Armbruster, & Viglione, 1977), using the data of the *EB* to determine if the high long-term reliability of the *Afr* is consistent by style. The division yielded 37 introversives, 43 extratensives, and 20 ambitents, and the retest correlations were consistently high for all three groups, but the mean *Afr*'s for the groups were quite different, with the mean for ambitents falling between the means for the other two groups (Introversive = .62, *SD* = .13; Ambitent = .67, *SD* = .11; Extratensive = .79, *SD* = .14). Thus, each group is relatively consistent within itself, but the two extreme groups differ considerably in terms of the proportional average number of responses to the last three cards. These findings are not substantially different than occur for adult nonpatients. Collectively, they comprise the case that has led to the establishment of average, or expected ranges for the *Afr* with regard to the data of the *EB* (see Table 13.5).

Research concerning the relationship between the *Afr* and behavior is more impoverished than should be the case for this apparently stylistic variable, and sometimes retrospective. For instance, findings about the *Afr*, derived from the studies of nonpatients, prompted a review of the records of individuals participating in several long-term treatment effects studies. The pretreatment protocols of 279 outpatients, who had *Lambda* values of less than 1.0, included 51 ambitents, 99 extratensives, and 128 introversives, with *Afr* means of .73, .69, and .67, respectively. However, the *Afr* distributions for the introversive and extratensive subjects were almost bimodal. The introversive sample included 36 protocols with *Afr*'s of less than .40, and 31 records with *Afr*'s above .80. Similarly, the

extratensive group includes 27 records with *Afr*'s below .50, and 33 with *Afr*'s greater than .90. These findings suggest that although patients, as a group, do not differ substantially for the mean *Afr*, they do show markedly different distributions of *Afr* values than is found among nonpatients, with many more persons falling at the upper and lower extremes.

These patients were retested at 9- to 12-month intervals, regardless of whether they had terminated or were continuing in treatment. At the time of the third retest, 27 to 34 months after the baseline record had been taken, 199 of the 279 subjects had been rated as markedly improved by significant others. A review of the third retest Rorschachs for those rated as improved, showed that 172 remained consistent for the baseline *EB* directionality. Ten continued as ambiverts, 92 continued to be introversive, and 69 remained extratensive. A comparison of the *Afr* values for the introversives and extratensives revealed means of .63 and .71, respectively, but more important the values were normally distributed for each group. The bimodality evident in the first testing was not present in the third retest. On the other hand, the distribution of *Afr* values for the 80 persons who were not rated as being improved continued to show considerable bimodality, with 27 having *Afr*'s lower than .50, and 24 with *Afr*'s higher than .80. The high and low values were about equally divided for introversive or extratensive persons. Interestingly, 19 of the 27 individuals with low *Afr*'s had Adjusted D scores of zero or in the plus range, whereas 17 of the 21 subjects with high *Afr*'s had Adjusted D scores in the minus range.

Some of the developmental data also appear to support the notion of a linkage between the *Afr* and receptivity to emotionally toned stimuli. The mean *Afr* for children between the ages of 5 and 8 drops from .88 to .69. It hovers in the upper .70's to mid .60's through age 16. The standard deviations at each age tend to be less than .10 and the other descriptive statistics concerning the shape of the distributions indicate that most are very close to normality. These data seem to coincide

well with what is known about the easy excitability of younger children, and how that feature gradually becomes more subdued or modulated with age. Elisens (1998) found that neglected or depressed school age children tend to have substantially lower *Afr*'s than nonpatient children. This is not surprising as adults, diagnosed with major affective disorders typically have *Afr*'s in the range from .40 to .49, which is substantially lower than nonpatient adults. DeRuiter and Cohen (1992) have noted that persons diagnosed as panic disorder with agoraphobia also tend to have very low *Afr* values. Persons with an avoidant style also tend to have *Afr*'s lower than individuals whose *Lambda* values are less than 1.0 (see Table 13.5).

Two laboratory studies appear to support the notion that the *Afr* relates to interest in or receptiveness to affective stimuli. The first (Exner & Thomas, 1984) involved 20 nonpatient adults. Ten had *Afr*'s exceeding .80 and the remaining 10 had *Afr*'s of less than .50. They were asked to rate a series of 12 artist sketches on a scale of 1 to 12, with the value of 1 assigned to "like least" and the value of 12 assigned to "like most." Six of the sketches were done in India ink (achromatic grey-black) and involved people in different situations. The other six were chromatically colored replicas of the first six. Nine of the 10 persons with the low *Afr*'s ranked all of the achromatic versions of the pictures higher than any of the same pictures that were chromatically colored, while 7 of the 10 individuals with high *Afr*'s rated all of the chromatically colored versions higher than the achromatic versions. The second study involved ratings of six advertising cartoons, three of which were presented in achromatic form and the same three in chromatic form (Exner, Thomas, & Chu, 1985). The raters consisted of 10 inpatients diagnosed as having a major affective disturbance, five of whom had *Afr*'s less than .50 and five with *Afr*'s greater than .70. The five participants with low *Afr*'s rated at least two of the three achromatic versions more favorably, while the five individuals with higher *Afr*'s rated all three of the chromatic versions more favorably.

CHROMATIC COLOR RESPONSES AND WSUMC

Rorschach (1921) proposed that responses involving the use of the chromatic colors relate to affect. He posited that they provide some index of emotional excitability, and the extent to which the use of color is merged with form can be viewed as representing "degrees of stabilization" of affective urges. He proposed that *FC* answers illustrate more modulation or control of affective displays, whereas *CF* and *C* responses are related to instances of discharge in which the emotion is more pronounced and dominating. Rorschach speculated that *CF* responses are related to actions involving less cognitive adaptation, when emotions such as irritation, suggestiveness, sensitivity, or empathy dominate the formation and direction of behaviors. He postulated that the Pure *C* responses relate to actions marked by little or no adaptation, as in instances of impulsiveness or lability. He pointed out that the ratio of *FC* to *CF+C* responses might be an index of the extent to which control is present in the affective state of the individual.

Although data do support Rorschach's basic postulates, he may have been overly simplistic in suggesting the fine discriminations between the three variables, especially concerning the differentiation between *CF* and *C*. This is because both have less temporal stability than the combination of the two. For example, the long-term retest correlations for the combination of *CF+C* are about .80, whereas the correlations for either variable, taken separately, range from .51 to .66. Similarly, the short-term retest correlations for the composite of *CF+C* range from .83 to .92, whereas the correlations for the variables taken separately range from .59 to .76. This does not mean that a *C* response should be regarded as equivalent to *CF* because *C* does seem related to a more intense, less well-controlled form of affective discharge.

Exner (1993) has noted that Pure *C* answers may indicate lability, that is, instances in which the person is unable to intercede cognitively be-

cause the affective experience is so intense, but it can also signal an instance in which some decision has been made to give way to the impulse rather than exert the effort necessary to intercede. In either instance, the Pure *C* response is commensurate with emotional behaviors that essentially are void of control. A review of retest data for 300 patient and nonpatient adults reveals that when only one Pure *C* occurred in a first test, the probability of it reoccurring in a second test is not greater than .65, but if two or more Pure *C*'s occurred in the first test, the probability of at least one occurring in the second test exceeds .90. Therefore, if multiple Pure *C* responses appear, it is very likely that some behaviors of the person are likely to be featured by very intense emotional characteristics. However, it is erroneous to assume that the more limited control represented by the Pure *C* answer is a trait-like feature, such as impulsiveness. Matters of control and/or proneness to impulsivity are indicated more by the *D* Scores and the variables related to the *D* Scores. Chromatic color responses simply reflect something about the modulation of emotional displays, which may or may not relate to elements of control. In this context, the *FC:CF+C* ratio and the *WSumC* do contribute to the interpretation by providing some information about affective adaptability.

Chromatic color responses appear to vary considerably in terms of how much or how little cognitive effort and complexity is involved. Schachtel (1943) was among the first to suggest this, and argued that the perception of color involves minimal activity and defined color responses as reflecting a passive process. Rickers-Ovsiankina (1943) reviewed a significant number of research works concerning perception, and also concluded that color perception is a more immediate process than form perception, requiring less cognitive activity in the mediation of the stimulus input. Rapaport et al. (1946) suggested that the *CF* and *C* answers represent a short-circuiting of delay functions. Shapiro (1956, 1960) reviewed a broad variety of clinical and experimental literature to define a "mode of perception" associated with the color

experience. He concluded that some color responses do involve more perceptual passivity, in which the cognitive functions necessary for affective delay are relaxed, and that the impact of the discharge on behavior will be proportional to the degree of relaxation that has occurred. Piotrowski (1957) hypothesized that *FC* responses involve much more cognitive complexity, because they require delay in merging contour and color in precise ways. He has agreed that the *CF* and *C* responses represent situations in which the cognitive elements are overly relaxed, or even possibly overwhelmed by, affective states.

The theory linking chromatic color responses to affective activity has often been a point of contention. Unfortunately, much of the disagreement about this issue has not focused on color responses *per se*, but on the concept of "color-shock," which was introduced by Rorschach. He defined it as a startle reaction to the chromatically colored figures. Extensive lists of indices of color-shock were developed between 1932 and 1950, including such elements as long reaction times, disruption of sequence, failure to give Popular answers, lower *R*, and so on. Much Rorschach literature of the 1940s and 1950s was marked by attempts to validate the various lists, but none were successful by contemporary standards. Keehn (1954) reviewed many of those studies and concluded that few, if any, of the signs were actually precipitated by the color features of the blots, and Crumpton (1956) noted that color-shock signs will occur as often to achromatic versions of the chromatic blots.

It is unfortunate that much research effort was devoted to studies on color-shock and then the negative findings were translated as being directly applicable to the color-affect theory. The studies that have approached the issue more directly have generally been supportive of the concept. Klatskin (1952) found that persons giving responses in which both color and texture are present are more susceptible to stress. Wallen (1948) found that the affective quality of the chromatic colors has a facilitating effect on responses. Grayson (1956) reported that the composite of color and form, rather than color alone, influences productivity.

Crumpton (1956) has found that color cards tend to elicit more undesirable affect and more aggressive and passive contents than do achromatic cards. Forsyth (1959) reported that the color cards facilitate an anxiety score. Exner (1959) found that both *R* and content scores are altered significantly when Card I is presented in a variety of chromatic colors as contrasted with the standard gray-black version.

The developmental Rorschach literature also lends some support to the color-affect hypothesis. Many investigators have reported that the *C* response is predominant in the very young child (Halpern, 1940; Klopfer & Margulies, 1941; Ford, 1946; Rabin & Beck, 1950; Ames et al., 1952). Ames also found that *CF* responses become more dominant after year 2, and remain so through year 16, although a gradual increase in *FC* answers is noted at each year level. Her findings are generally consistent with the data for nonpatient children (Exner & Weiner, 1995).

The stability of the directionality shown in the *FC:CF+C* ratio is quite remarkable for adults. Exner et al. (1978) found, in the data concerning 100 nonpatient adults retested after three years, that if the value in one side of the ratio exceeded the other by at least 1 point in the first test, the same directionality existed in the second test. The same stability has been found in retest studies for nonpatient adults and children when the retest is administered after a briefer interval (Exner, 1986). A similar stability in the directionality of the ratio is found among inpatient schizophrenics and depressives retested as much as one year after the first test (Exner, 1983) even though all had been involved in elaborated treatment programs and most had been discharged from hospitalization. The stability for the directionality of the ratio also exists among outpatients up to at least one year of treatment (Weiner & Exner, 1991; Exner & Sanglade, 1992).

Adult nonpatients usually give at least as many *FC* responses as *CF+C*, and usually a few more *FC*. For instance, 396 (66%) of the 600 nonpatient adults in the normative sample give at least one more *FC* answer than the composite of *CF+C*.

Children do the opposite, giving significantly more *CF+C* than *FC* at every age through age 12, and even into the midadolescent years, the values for *FC* are usually not much greater than for *CF+C*. Patient groups tend to have *FC:CF+C* ratios in which substantially greater proportions have the greater number on the right side of the ratio. This is probably because many patients experience problems in emotional control. There are important exceptions. For instance, data from the protocols of 48 outpatients, being treated for psychosomatic problems, indicates that 27 have *FC:CF+C* ratios of 4:1 or greater, and only four have *FC:CF+C* ratios in which the value of *FC* is less than 1½ times that of *CF+C*.

A higher right-side value in the ratio does suggest that the emotional behaviors will be marked more often by characteristics of intensity or even impulsiveness. For instance, Gill (1966) found that persons who delay responses in a problem-solving task gave significantly more *FC* than *CF+C* answers, whereas those who did not manifest delay in forming their responses gave significantly more *CF+C*. There have also been several studies in which a higher frequency of *CF+C* responses has been found to correlate with impulsive or aggressive behaviors (Gardner, 1951; Stormont & Finney, 1953; Finney, 1955; Sommer & Sommer, 1958; Townsend, 1967). Miller (1999) found that the protocols of couples with a domestic violence history contained significantly more Pure *C* answers and significantly fewer *FC* responses than did the protocols of couples in custody disputes with no history of domestic violence. Pantle, Ebner, and Hynan (1994) found that records containing more *FC* than *CF+C* related to the Gordon Diagnostic System Delay Task, which assesses the ability to form response strategies and benefit from feedback.

Stotsky (1952) reported that treatment success is achieved more frequently among schizophrenics whose pretreatment protocols show more *FC* than *CF+C*. Exner, Murillo, and Cannavo (1973) found significant shifts from more *CF+C* to more *FC* when comparing the pre- and posttreatment records of 105 nonschizophrenic inpatients.

Exner and Murillo (1975) found a significantly greater proportion of higher right-side *FC:CF+C* ratios in the discharge Rorschachs of patients who relapsed within 12 months following discharge as contrasted with nonrelapsers. Exner (1978) found that 116 of 199 outpatients, who were subsequently rated as improved by significant others, had more *CF+C* than *FC* in their pretreatment protocols, but only 61 continued to have more *CF+C* in protocols that were collected 28 months after the onset of treatment.

Brennen and Richard (1943) reported that persons with high *WSumC* are more easily hypnotized than those with low *WSumC*. Similarly, Steisel (1952) and Linton (1954) have noted that individuals with high *WSumC* are more likely to alter their judgments in accord with the suggestions of a confederate examiner. Mann (1956) found a significant relationship between the number of interview words related to the environment and the *WSumC*. Exner and Armbruster (1979) found a significant correlation ($\rho = .48$) between the *WSumC* and the total score on the Zuckerman (1971) Sensation Seeking Scale among 30 assembly line workers at a manufacturing plant. Weigel and Exner (1981) had 54 nonpatient office workers give preferential ratings for a series of 60 slides using a 5-point scale, with the highest value assigned for the most preferred. The group included 21 extratensives, 14 ambitents, and 19 introversives. Thirty of the slides were nature scenes or photos of buildings, and 30 involved interactions among people, or between a person and an animal, such as a boy playing with a dog. When the subjects were divided into two groups of 27 each, based on a median split of the distribution of *WSumC* scores, no differences in ratings were found between the groups. However, when the 14 ambitents were discarded from the sample and the group was divided again using a median split based on the *WSumC* values, the 20 persons in the upper half showed significantly higher mean preference values for both sets of slides than did the 20 persons in the lower half. As might be suspected, 14 of the 20 persons in the upper half of the *WSumC* distribution were

extratensive. De Ruiter and Cohen (1992) found very low values for *WSumC* among individuals with panic disorder and agoraphobia.

SUMC':WSUMC

This ratio was developed from a study of 300 records from a mixed group of psychosomatic patients (Exner, 1994). It was noted that the value for *SumC'* exceeded the value for *WSumC* in 219 (73%) of the 300 protocols. The finding seemed congruent with the notion that psychosomatics often hold in many of their feelings, and the process of introjection apparently contributes to some of the physical problems. The finding concerning the psychosomatic group prompted a review of the protocols of 315 inpatients diagnosed as having a major depressive disorder, in which 198 (63%) showed *SumC'* values greater than *WSumC*. Subsequently, therapist evaluations for 425 adult outpatients, completed after the third or sixth session, were screened and yielded 158 patients who had been evaluated as having some sort of emotional constriction. The pretreatment protocols of those individuals included 121 (77%) who had more *SumC'* than *WSumC*, and about 80% were ambivalent or extratensive. In contrast, only 19 (7%) of the other 267 patients who had been rated by therapists had this feature.

COLOR PROJECTION (CP)

The Special Score CP can also provide some data concerning how the subject responds to affective experience. It was suggested by Piotrowski (1957) to account for instances in which a person identifies achromatic blot areas as being chromatic. He postulated that it represents an ingenuine emotion, that is, an attempt to deal with a feeling of discomfort or helplessness by substituting a rather transparent and unrealistic positive emotional tone. That premise is difficult to test because the incidence of CP responses is very infrequent in most groups. For instance, CP's occurred in only five of the 600 protocols in the adult nonpatient normative sample, all of whom

appeared in extratensive records, and in only seven of the 1,390 records of nonpatient children (Exner, 2001).

A review of 430 records of outpatients who volunteered, prior to or during their first two weeks in treatment, to participate in a long-term treatment effects study revealed that CP was coded at least once in 44 of the protocols. Therapist evaluations of these patients, collected after the fourth or eighth treatment session, indicated that the primary symptom patterns of those giving CP responses were psychosomatic ($N=14$), hysteroid-like problems in dealing with affect ($N=20$), depression ($N=7$), and obsessive-like features ($N=3$). The therapist evaluations included a section pertaining to tactics of defense if discernible, as many as three were to be listed. Forty-two (95%) of the 44 persons who gave at least one CP response were evaluated as having marked tendencies to use denial as a defensive tactic. Only about 32% of the remaining 385 patients were evaluated as frequently using denial as a defensive tactic. Although the findings involve only one criterion variable (denial), they do provide some support for Piotrowski's hypothesis that CP appears to relate to an abuse of denial as a tactic to deal with unwanted emotions.

SPACE RESPONSES

Rorschach postulated that the use of white space in responses represents a form of opposition or negativism, arguing that it requires an alteration in the figure-ground relationship. S. Beck (1945) and Rapaport et al. (1946) have endorsed this hypothesis, but have also cautioned that it may simply indicate a form of contrariness that may serve to accent the idiographic features of the person. Klopfer et al. (1954) added to this by suggesting that it can be interpreted as a form of constructive self-assertiveness, whereas Piotrowski (1957) argued that it can represent a striving for independence. All have emphasized that when it occurs with considerable frequency, it can illustrate some impingement to reality contact.

The literature concerning *S*, which is somewhat sparse, offers at least partial support for these various positions. Counts and Mensh (1950) used a retest model and found a significant increase in *S* after hypnotically inducing conflict. Fonda (1951) and Bandura (1954) both found a significant positive relation between *S* and oppositional tendencies. Rosen (1952) reported a significant correlation between the frequency of *S* and high *Pd* scores on the MMPI, but did not find a relationship between *S* and the diagnosis of psychopathy. Rapaport et al. (1946) reported that the highest incidence of *S* is found among paranoid schizophrenics, and Molish (1955) has posited that when *S* appears in schizophrenic records, it represents a process through which a passive resistance to the environment is maintained. Fonda (1960) reviewed the literature concerning *S* and concluded that the proportion of *S* in the record gives some indication of the effort being devoted to the defense of autonomy.

Data from the protocols of nonpatient adults and children suggest that as many as two *S* responses are not unexpected, but when the value for *S* is three or more, the finding may be important and should be reviewed to differentiate trait-like hostility from situationally related negativism. The most common *S* responses occur to Cards I (variations of a face), and II (rocket), and least frequently to Cards IV, V, VI, and VIII. Rorschach probably was only partially correct in his assumption that all *S* answers involve some alteration in the figure and ground relation. This does not seem to be the case for Card I, to which nearly 20% of nonpatient adults and nearly 30% of nonpatient children give some sort of face response, usually the face of a cat, a mask, or a Halloween pumpkin. That kind of answer continues to be given with about the same frequency if the white areas are colored either light or dark gray to maintain the contrast effect for contours. However, if the contours are eliminated by coloring the white areas as a gray-black, in a manner that makes them homogeneous with the immediate surroundings, the frequency of face responses is reduced to zero. Some other internal space areas are also routinely per-

ceived as part of the figure rather than ground. These include the *DS3* area on Card VIII, and all of the space areas on Card IX.

The reliability data suggest that all space responses do not necessarily correlate with the same psychological operations, because they are quite variable. Retest correlations range from .59 to .73 for brief intervals, and from .72 to .79 for lengthy intervals. The fact that lower retest correlations are found for brief intervals prompted a decision to subdivide 165 pairs of brief interval retest protocols, from both patients and nonpatients and including adults and children, in which at least one *S* response appeared in the first record, into three groups: (1) those containing only *WS* and/or *DS* answers, (2) those containing only *DdS* answers, and (3) those containing a combination of *WS* and/or *DS* plus *DdS* responses.

Subsequently, a fourth group was created containing records in which all *S* answers appeared in a combination of Cards I, II, and III in the first test. The retest correlation for the group ($N = 38$) in which only *WS* and/or *DS* responses appear is .63. The correlation for the group containing only *DdS* answers ($N = 33$) is .71, but the retest correlation for the group containing a mixture of *WS* and/or *DS* plus *DdS* ($N = 94$) is .81. As might be suspected, the latter group has a mean for *S* (3.97, $SD = 1.1$) that is significantly greater than either of the other two groups, 1.23 and 1.41, respectively. In other words, as *S* elevates well beyond the expected level, it reflects a more stable characteristic. The retest correlation for the group of records in which all *S* answers occurred to the combination of Cards I, II, and III ($N = 28$) is only .32, which suggests that these responses are more situationally related, and probably are a product of resistance to taking the test.

BLENDS

When more than one determinant is present in a response, it indicates that the activity occurring in the formation and delivery of the answer was more complex than might have been expected or required. Most of these complex answers will

involve variables related to affective experience. It is true that about 70% of all blends have at least one movement determinant, but less than 2% consist exclusively of movement determinants, such as *M.FM*, *M.m*, or *FM.m*, and about 7% of all blends consist exclusively of one of the movement determinants plus *FD*. Thus, more than 90% of all blends include at least one determinant that is related directly to affective experience, the chromatic or achromatic color, or one of the shading determinants.

In some respects, the process leading to a blend response can be regarded as representing the extreme opposite of the economizing process reflected in the Pure *F* answer. Not surprisingly, the correlation between *Lambda* and the frequency of blends is $-.43$ among nonpatients, and $-.49$ among outpatients. In other words, *F* is a simple, straightforward classification, whereas the blend is the product of activity in which considerable analysis and synthesis of stimulus elements occurs.

Blends appear commonly in most protocols. For instance, 598 of the 600 persons in the adult nonpatient sample gave at least one blend, including all 58 persons with *Lambda* values greater than 0.99. Similarly, at least one blend appears in records of 1,373 of 1,390 nonpatient children. However, the proportion of expected blends differs in relation to *EB*. Typically, about 20% of the responses from introverts are blended, as contrasted with about 25% of the answers from extroverts, and slightly more than 25% of the responses from ambiverts. Also, as implied earlier, the proportion of blends differs in relation to *Lambda*, regardless of *EB* style. For instance, in a group of 272 outpatients with *Lambda* values between .50 and .99, only about 8% have a proportion of blends greater than 32% of *R*. On the other hand, in a group of 143 outpatients with *Lambda* values less than .50, about 34% have a proportion of blends that is greater than 32% of *R*.

Numerous elements appear to provoke the sort of complex activity that leads to a blend. Sometimes, as noted in Chapter 15, the presence of

situational stress will increase the number of blends, but most blends are not situationally related. Among nonpatients, more than 90% of all blends given do not contain either the *m* or *Y* variable. Exner (1974) reported that more records with no blends are found among subjects with I.Q.s of less than 90, but Mason and Exner (1984) found only very low, nonsignificant correlations between Verbal I.Q. ($r = -.03$) and Performance I.Q. ($r = .02$) and the frequency of blends.

The interpretation of blends is based on both the quantity and substance. The absence of blends in the record of an adolescent or adult is a negative sign, indicating a form of psychological narrowness or constriction. It probably also indicates less sensitivity to oneself and the environment. If the proportion of blends in the record falls below the expected range, it suggests the possibility of some psychological impoverishment that has a potential to create difficulties in dealing with complex emotional stimuli. If these difficulties occur, they are most likely to manifest in the modulation of emotional displays. At the other extreme, a significant elevation in the proportion of blends signals psychological complexity. If the person has an abundance of resources, the complexity might be viewed as an asset to functioning, because it suggests a greater sensitivity to stimuli. However, if resources are more limited, or if problems in control and/or modulation exist, the complexity increases the possibility that affect can have detrimental influence on the behavioral consistency and/or stability of the person.

When the proportion of blends is substantial, three possibilities are worth considering. First, some people have difficulty identifying the most economical ways of handling task demand. Frequently, they are victims of their unfulfilled needs, conflicts, and emotions. As a result, they do not always use their resources effectively. Their preoccupations and/or apprehensions often interfere with concentration or logical reasoning, and thus they often fail to perceive easier or economical solutions, which leads to an overinvolvement with stimuli around them. It is not deliberate, but rather

an inability to back away. When this is true, there usually will be many other features of the record that signal turmoil.

Two other conditions can also produce a higher proportion of blends, both of which can be viewed somewhat more positively. Some achievement-oriented people have the advantage of being flexible and able to adapt easily to situations. If these persons view the test as a challenge to their coping skills, they will often sacrifice economy to gain a sense of accomplishment. They frequently reject simpler responses and strive to deal effectively with the complexity of the stimuli. When this is true, many features of the record will convey a picture of control, flexibility, adaptability, and psychological sturdiness. The third condition that sometimes produces a greater proportion of blends is also related to an orientation to achieve, but it is created less from the sense to challenge and more from the need to avoid error or failure. It is identified by an elevated *Zd* score. There is a significant, positive correlation between the proportion of blends and the *Zd* score (.46 among nonpatients; .42 among outpatients). When the *Zd* score is greater than + 3.0, it indicates that the person tends to invest more effort in organizing the stimulus field than is typical or necessary. It is a kind of cognitive inefficiency that can be either an asset or liability, depending on the circumstance in which it occurs. This is discussed in more detail in the next chapter, but for purposes of studying blends, when both the proportion of blends and the *Zd* score are elevated substantially, other data concerning stability, reality testing, clarity of thinking, stress tolerance, and control will be the decisive elements in determining whether the higher than expected proportion of blends is cause for concern, or merely a by-product of a more firmly entrenched cognitive style.

The actual substance of the blend can often provide some clue about how the affective elements are working in the psychological operations of the person. For instance, a blend of *Ma.FC* will generally be regarded much more positively than *CF.FMp*. In the former, the delay factor is dominant and the

affect apparently well modulated. In the latter, less well-modulated affect is dominant, and merged with a need-related component that has a passive quality. Similarly, a blend of *Mp.FC'* suggests a form of passive affective constraint, which may not be regarded very favorably, yet it is much more positive than a blend such as *mp.YF*, which reeks of a sense of paralysis.

SHADING AND COLOR SHADING BLENDS

These types of blends have special importance to affective features. The shading blend contains at least two of the achromatic and/or shading determinants (*FT.FY*, *FV.FC'*, *C'F.YF*, etc.). They are unusual and never expected. They appear in only 2 of the 600 adult nonpatient records, and in only 7 of 328 schizophrenic protocols. They appear in 29 of 279 protocols of inpatient depressives and in 21 of 216 records of outpatients with depression as the main presenting symptom. Because all four of the achromatic and shading variables relate to irritating or painful affective experience, the presence of two or more in a single answer probably indicates a more tormented experience that creates a very disruptive impact on most all affective functioning and can become very pervasive in thinking. The substance of the shading blend is important. If it contains only two of the critical variables, and one of the two is a *Y* variable, it is likely that the experience is more situationally related. If the critical variables do not include *Y*, the intense distress is probably much more chronic.

The color-shading blend occurs much more frequently than the shading blend. At least one color-shading blend appears in 215 of the 600 adult nonpatient protocols (36%) with about two-thirds being records of extratensives or ambitents. They occur less often in the records of nonpatient children and adolescents. They appear in less than 20% of the records for most age groups in the normative samples. Color-shading blends appear most frequently in the records of depressives. More than

65% of records from inpatient depressives, and nearly 70% of the protocols of outpatient depressives in a long-term treatment effects study (Weiner & Exner, 1991), contain at least one, and nearly 25% of the records in both groups have three or more. In contrast, they appear in about 35% of schizophrenic records and slightly more than 40% of nondepressed outpatients.

S. Beck (1949) was the first to elaborate on the color-shading blend, suggesting that it represents a form of simultaneous pleasure and pain. Applebaum and Holzman (1962) found that color-shading blends appear more frequently in the records of persons prone to suicide. Exner and Wylie (1977) also found that it does correlate significantly with effected suicide ($r = .34$), but because of the high frequency with which it appears in other groups, it is not an effective discriminator when taken alone. Nonetheless, it does load positively into the Suicide Constellation. Silberg and Armstrong (1992) found that the presence of color-shading blends contributes to the identification of severely depressed, suicidal adolescents. Applebaum and Colson (1968) have suggested that color-shading blends reflect an aborted form of emotional experience. Exner (1978) has postulated that they represent more of a mixed or confused emotional experience, which, at times, can indicate the presence of ambivalence.

The retest reliabilities for all color-shading blends are relatively modest, ranging from .48 to .57 for lengthy retest intervals, and .55 to .67 for retests administered during a period of 30 days or less. However, as Castles (J. Castles, personal communication, 1984) has suggested, those correlations are somewhat misleading because of the Y variable. Approximately 60% of the color-shading blends given by nonpatient adults, almost 70% of those given by nonpatient children, and nearly 40% of those given by patients contain a Y variable, suggesting that a situational factor has contributed to the formation of the blend answer. Retest reliabilities, calculated for 150 adult nonpatients retested after lengthy intervals, and divided into two groups based on whether the color-shading blends

contained a Y variable, confirm the Castles' postulate. The correlations for those including Y ranged from .28 to .41, and those not including the Y variable ranged from .68 to .79.

When the retest records of 130 nonpatient adults and children who took the second test within 30 days were divided in the same way, the retest correlations for those containing a Y variable ranged from .16 to .34, whereas the correlations for the group in which the blends did not contain a Y variable ranged from .73 to .82. These findings suggest that, as with the shading blends, the characteristic should be differentiated as situationally related or chronic. If chronic, the element of ambivalence is much more likely to exist as a trait-like feature that causes the person to become confused by emotion and which may be experienced in the form of both positive and negative feelings about the same situation. People such as this often experience feelings more intensely than others and sometimes have more difficulty in bringing closure to emotional situations.

Regardless of whether the color-shading blend appears to be situational or chronic, its presence signals some difficulty with affect. A confusion about feelings can be situation specific and, as such, does not necessarily predispose faulty or ineffective emotional adjustment. Conversely, ambivalence, as a trait-like feature, creates many more potential hazards to the maintenance of consistency in affective reactions to various classes of emotional stimulation. When affective reactions become inconsistent, that inconsistency can have a substantial impact on a variety of relationships in the environment.

REFERENCES

- Abramson, L. Y., Metalsky, G. L., & Alloy, L. B. (1989). Hopelessness depression: A theory based sub-type of depression. *Psychological Review*, 96, 358-372.
- Allen, R. M., Manne, S. H., & Stiff, M. (1951). The role of color in Rorschach's test: A preliminary normative report on a college student population. *Journal of Projective Techniques*, 15, 235-242.

- Ames, L. B., Learned, J., Metraux, R. W., & Walker, R. N. (1952). *Child Rorschach responses*. New York: Harper & Row.
- Ames, L. B., Metraux, R. W., & Walker, R. N. (1971). *Adolescent Rorschach responses*. New York: Brunner/Mazel.
- Applebaum, S. A., & Colson, D. B. (1968). A reexamination of the color-shading Rorschach Test response. *Journal of Projective Techniques and Personality Assessment*, 32, 160-164.
- Applebaum, S. A., & Holzman, P. S. (1962). The color-shading response and suicide. *Journal of Projective Techniques*, 26, 155-161.
- Arluck, E. W. (1940). A study of some personality differences between epileptics and normals. *Rorschach Research Exchange*, 4, 154-156.
- Ball, J. D., Archer, R. P., Gordon, R. A., & French, J. (1991). Rorschach depression indices with children and adolescents: Concurrent validity findings. *Journal of Personality Assessment*, 57, 465-476.
- Bandura, A. (1954). The Rorschach white space response and oppositional behavior. *Journal of Consulting Psychology*, 18, 17-21.
- Bannatyne, L. A., Gacono, C. B., & Greene, R. L. (1999). Differential patterns of responding among three groups of chronic, psychotic, forensic patients. *Journal of Clinical Psychology*, 55, 1553-1565.
- Bash, K. W. (1955). Einstellungstypus and Erlebnistypus: C. G. Jung and Herman Rorschach. *Journal of Projective Techniques*, 19, 236-242.
- Baughman, E. E. (1959). An experimental analysis of the relationship between stimulus structure and behavior in the Rorschach. *Journal of Projective Techniques*, 23, 134-183.
- Beck, A. T. (1967). *Depression: Clinical, experimental and theoretical aspects*. New York: Harper & Row.
- Beck, S. J. (1944). *Rorschach's test. I: Basic processes*. New York: Grune & Stratton.
- Beck, S. J. (1945). *Rorschach's test. II: A variety of personality pictures*. New York: Grune & Stratton.
- Beck, S. J. (1949). *Rorschach's test. I: Basic processes* (2nd ed.). New York: Grune & Stratton.
- Beck, S. J., Beck, A., Levitt, E. E., & Molish, H. B. (1961). *Rorschach's test. I: Basic processes* (3rd ed.). New York: Grune & Stratton.
- Blatt, S. J., & Feirstein, A. (1977). Cardiac response and personality organization. *Journal of Consulting and Clinical Psychology*, 45, 111-123.
- Blatt, S. J., Quinlan, D. M., Chevron, E. S., McDonald, C., & Zuroff, D. (1982). Dependency and self criticism: Psychological dimensions of depression. *Journal of Consulting and Clinical Psychology*, 50, 113-124.
- Brennen, M., & Richard, S. (1943). Use of the Rorschach test in predicting hypnotizability. *Bulletin of the Menninger Clinic*, 7, 183-187.
- Brown, G. W., & Harris, T. (1978). *Social origins of depression*. New York: Free Press.
- Buhler, C., & LeFever, D. (1947). A Rorschach study on the psychological characteristics of alcoholics. *Quarterly Journal of Studies on Alcoholism*, 8, 197-260.
- Carlson, C. F., Kula, M. L., & St-Laurent, C. M., (1997). Rorschach revised DEPI and CDI with inpatient major depressives and borderline personality disorder with major depression. *Journal of Clinical Psychology*, 53, 51-58.
- Chadoff, P. (1974). The depressive personality: A critical review. In R. J. Friedman & M. M. Katz (Eds.), *The psychology of depression*. Washington, DC: Winston.
- Chu, A. Y., & Exner, J. E. (1981). *EB style as related to distractibility in a calculation task*. Rorschach Workshops (Study No. 280, unpublished).
- Counts, R. M., & Mensh, I. N. (1950). Personality characteristics in hypnotically induced hostility. *Journal of Clinical Psychology*, 6, 325-330.
- Crumpton, E. (1956). The influence of color on the Rorschach test. *Journal of Projective Techniques*, 20, 150-158.
- de Ruiter, C., & Cohen, L. (1992). Personality in panic disorder with agoraphobia: Rorschach study. *Journal of Personality Assessment*, 59, 304-316.
- Dubrovner, R. J., VonLackum, W. J., & Jost, H. A. (1950). A study of the effect of color on productivity and reaction time in the Rorschach test. *Journal of Clinical Psychology*, 6, 331-336.
- Elisens, M. M. (1998). The cognitive and emotional correlates of neglect in school age children. *Dissertation Abstracts International*, 58, 3920.
- Exner, J. E. (1959). The influence of chromatic and achromatic color in the Rorschach. *Journal of Projective Techniques*, 23, 418-425.
- Exner, J. E. (1962). The effect of color on productivity in Cards VIII, IX, X of the Rorschach. *Journal of Projective Techniques*, 26, 30-33.
- Exner, J. E. (1974). *The Rorschach: A Comprehensive System. Volume 1*. New York: Wiley.
- Exner, J. E. (1978). *The Rorschach: A Comprehensive System. Volume 2. Current research and advanced interpretation*. New York: Wiley.

- Exner, J. E. (1983). Rorschach assessment. In I. B. Weiner (Ed.), *Clinical Methods in Psychology* (2nd ed.). New York: Wiley.
- Exner, J. E. (1986). *The Rorschach: A Comprehensive System. Volume 1: Basic foundations* (2nd ed.). New York: Wiley.
- Exner, J. E. (1990). *A Rorschach Workbook for the Comprehensive System* (3rd ed.). Asheville, NC: Rorschach Workshops.
- Exner, J. E. (1993). *The Rorschach: A Comprehensive System. Volume 1: Basic Foundations* (3rd ed.). New York: Wiley.
- Exner, J. E. (1994). Recent research. *Alumni Newsletter*. Asheville, NC: Rorschach Workshops.
- Exner, J. E. (2001). *A Rorschach Workbook for the Comprehensive System* (5th ed.). Asheville, NC: Rorschach Workshops.
- Exner, J. E., & Armbruster, G. L. (1979). *Correlations between some Rorschach variables and Zuckerman sensation seeking scores*. Rorschach Workshops (Study No. 252, unpublished).
- Exner, J. E., Armbruster, G. L., & Viglione, D. (1978). The temporal stability of some Rorschach features. *Journal of Personality Assessment*, 42, 474-482.
- Exner, J. E., Boll, T. J., Colligan, S. C., Stischer, B., & Hillman, L. (1996). Rorschach findings concerning closed head injury patients. *Assessment*, 3, 317-326.
- Exner, J. E., & Murillo, L. G. (1973). Effectiveness of regressive ECT with process schizophrenia. *Diseases of the Nervous System*, 34, 44-48.
- Exner, J. E., & Murillo, L. G. (1975). Early prediction of posthospitalization relapse. *Journal of Psychiatric Research*, 12, 231-237.
- Exner, J. E., & Murillo, L. G. (1977). A long-term follow up of schizophrenics treated with regressive ECT. *Diseases of the Nervous System*, 38, 162-168.
- Exner, J. E., Murillo, L. G., & Cannavo, F. (1973). *Disagreement between patient and relative behavioral reports as related to relapse in nonschizophrenic patients*. Eastern Psychological Association, Washington, DC.
- Exner, J. E., & Sanglade, A. A. (1992). Rorschach changes following brief and short-term therapy. *Journal of Personality Assessment*, 59, 59-71.
- Exner, J. E., & Thomas, E. A. (1982). *Postural-gestural behaviors among introverts and extroverts during a structured interview*. Rorschach Workshops (Study No. 292, unpublished).
- Exner, J. E., & Thomas, E. A. (1984). *The relation of AFR and preference for artist sketches*. Rorschach Workshops (Study No. 294, unpublished).
- Exner, J. E., Thomas, E. A., & Chu, Y. A. (1985). *AFR and cartoon ratings*. Rorschach Workshops (Study No. 302, unpublished).
- Exner, J. E., Thomas, E. A., & Martin, L. S. (1980). *Alterations in GSR and cardiac and respiratory rates in introverts and extroverts during problem solving*. Rorschach Workshops (Study No. 272, unpublished).
- Exner, J. E., Thomas, E. A., & Mason, B. (1985). Children's Rorschach's: Description and prediction. *Journal of Personality Assessment*, 49, 13-20.
- Exner, J. E., & Weiner, I. B. (1982). *The Rorschach: A comprehensive system. Vol. 3. Assessment of children and adolescents*. New York: Wiley.
- Exner, J. E., & Weiner, I. B. (1995). *The Rorschach: A comprehensive system: Vol. 3. Assessment of children and adolescents* (2nd ed.). New York: Wiley.
- Exner, J. E., & Wylie, J. (1977). Some Rorschach data concerning suicide. *Journal of Personality Assessment*, 41, 339-348.
- Finney, B. C. (1955). Rorschach test correlates of assaultive behavior. *Journal of Projective Techniques*, 19, 6-16.
- Fonda, C. P. (1951). The nature and meaning of the Rorschach white space response. *Journal of Abnormal and Social Psychology*, 46, 367-377.
- Fonda, C. P. (1960). The white space response. In M. Rickers-Ovsiankina (Ed.), *Rorschach psychology*. New York: Wiley.
- Ford, M. (1946). The application of the Rorschach test to young children. *University of Minnesota Child Welfare Monographs*. No. 23.
- Forsyth, R. P. (1959). The influence of color, shading and Welsh anxiety level on Elizur Rorschach content analysis of anxiety and hostility. *Journal of Projective Techniques*, 23, 207-213.
- Gacono, C. B., Meloy, J. R., & Bridges, M. R. (2000). A Rorschach comparison of psychopaths, sexual homicide perpetrators, and nonviolent pedophiles: Where angels fear to tread. *Journal of Clinical Psychology*, 56, 757-777.
- Gardner, R. W. (1951). Impulsivity as indicated by Rorschach test factors. *Journal of Consulting Psychology*, 15, 464-468.
- Gill, H. S. (1966). Delay of response and reaction to color on the Rorschach. *Journal of Projective Techniques and Personality Assessment*, 30, 545-552.

- Goldfarb, W. (1945). Psychological privation in infancy and subsequent adjustment. *American Journal of Orthopsychiatry*, 15, 249-254.
- Goldfarb, W. (1949). Rorschach test differences between family reared, institution reared, and schizophrenic children. *American Journal of Orthopsychiatry*, 19, 624-633.
- Goldman, R. (1960). Changes in Rorschach performance and clinical improvement in schizophrenia. *Journal of Consulting Psychology*, 24, 403-407.
- Grayson, H. M. (1956). Rorschach productivity and card preferences as influenced by experimental variation of color and shading. *Journal of Projective Techniques*, 20, 288-296.
- Hafner, A. I. (1958). Response time and Rorschach behavior. *Journal of Clinical Psychology*, 14, 154-155.
- Halpern, F. (1940). Rorschach interpretation of the personality structure of schizophrenics who benefit from insulin therapy. *Psychiatric Quarterly*, 14, 826-833.
- Henry, E. M., & Rotter, J. B. (1956). Situational influences on Rorschach responses. *Journal of Consulting Psychology*, 20, 457-462.
- Jansak, D. M. (1997). The Rorschach Comprehensive System Depression Index, depression heterogeneity, and the role of self-schema. *Dissertation Abstracts International*, 57, 6576.
- Keehn, J. D. (1954). The response to color and ego functions: A critique in light of recent experimental evidence. *Psychological Bulletin*, 51, 65-67.
- Kelley, D., Margulies, H., & Barrera, S. (1941). The stability of the Rorschach method as demonstrated in electric convulsive therapy cases. *Rorschach Research Exchange*, 5, 44-48.
- Kendell, R. E. (1976). The classification of depression: A review of contemporary confusion. *British Journal of Psychiatry*, 129, 15-28.
- Klatskin, E. H. (1952). An analysis of the effect of the test situation upon the Rorschach record: Formal scoring characteristics. *Journal of Projective Techniques*, 16, 193-199.
- Klopfer, B., Ainsworth, M., Klopfer, W., & Holt, R. (1954). *Developments in the Rorschach technique* (Vol. 1). Yonkers-on-Hudson, NY: World Books.
- Klopfer, B., & Kelley, D. (1942). *The Rorschach technique*. Yonkers-on-Hudson, NY: World Books.
- Klopfer, B., & Margulies, H. (1941). Rorschach reactions in early childhood. *Rorschach Research Exchange*, 5, 1-23.
- Langmuir, C. R. (1958). *Varieties of decision making behavior: A report of experiences with the Logical Analysis Device*. Washington, DC: American Psychological Association.
- Linton, H. B. (1954). Rorschach correlates of response to suggestion. *Journal of Abnormal and Social Psychology*, 49, 75-83.
- Lipovsky, J. A., Finch, A. J., & Belter, R. W. (1989). Assessment of depression in adolescents: Objective and projective measures. *Journal of Personality Assessment*, 53, 449-458.
- Mann, L. (1956). The relation of Rorschach indices of extratension and introversion to a measure of responsiveness to the immediate environment. *Journal of Consulting Psychology*, 20, 114-118.
- Mason, B., & Exner, J. E. (1984). *Correlations between WAIS subtests and nonpatient adult Rorschach data*. Rorschach Workshops (Study No. 289, unpublished).
- Meyer, B. T. (1951). An investigation of color shock in the Rorschach test. *Journal of Clinical Psychology*, 7, 367-370.
- Miller, T. A. (1999). Rorschach assessment of object relations and affect control in domestic violent and non-violent couples. *Dissertation Abstracts International*, 59, 4069.
- Millon, T., & Kotik, D. (1985). The relationship of depression to disorders of personality. In E. E. Beckham & W. R. Leber (Eds.), *Handbook of depression: Treatment, assessment, and research*. Homewood, IL: Dorsey Press.
- Mindness, H. (1955). Analytic psychology and the Rorschach test. *Journal of Projective Techniques*, 19, 243-252.
- Molish, H. B. (1955). *Schizophrenic reaction types in a Naval Hospital population as evaluated by the Rorschach test*. Washington, DC: Bureau of Medicine and Surgery, Navy Department.
- Molish, H. B. (1967). Critique and problems of the Rorschach. A survey. In S. J. Beck & H. B. Molish, *Rorschach's test. II: A variety of personality pictures* (2nd ed.). New York: Grune & Stratton.
- Pantle, M. L., Ebner, D. L., & Hynan, L. S. (1994). The Rorschach and the assessment of impulsivity. *Journal of Clinical Psychology*, 50, 633-638.
- Paulsen, A. (1941). Rorschachs of school beginners. *Rorschach Research Exchange*, 5, 24-29.
- Perlman, J. A. (1951). Color and the validity of the Rorschach 8-9-10 percent. *Journal of Consulting Psychology*, 15, 122-126.

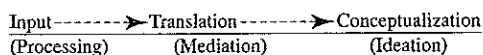
- Piotrowski, Z. (1957). *Perceptanalysis*. New York: Macmillan.
- Rabin, A. I., & Beck, S. I. (1950). Genetic aspects of some Rorschach factors. *American Journal of Orthopsychiatry*, 20, 595-599.
- Rabin, A. I., Papania, N., & McMichael, A. (1954). Some effects of alcohol on Rorschach performance. *Journal of Clinical Psychology*, 10, 252-255.
- Rabinovitch, M. S., Kennard, M. A., & Fister, W. P. (1955). Personality correlates of electroencephalographic findings. *Canadian Journal of Psychology*, 9, 29-41.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Psychological diagnostic testing* (Vol. 2). Chicago: Yearbook Publishers.
- Rickers-Ovsiankina, M. (1943). Some theoretical considerations regarding the Rorschach method. *Rorschach Research Exchange*, 7, 14-53.
- Rorschach, H. (1921). *Psychodiagnostik*. Bern, Switzerland: Bircher.
- Rosen, E. (1952). MMPI and Rorschach correlates of the Rorschach white space response. *Journal of Clinical Psychology*, 8, 238-288.
- Rosenthal, M. (1954). *Some behavioral correlates of the Rorschach experience balance*. Unpublished doctoral dissertation, Boston University.
- Sapenfield, B., & Buker, S. L. (1949). Validity of the Rorschach 8-9-10 percent as an indicator of responsiveness to color. *Journal of Consulting Psychology*, 13, 268-271.
- Schachtel, E. G. (1943). On color and affect. *Psychiatry*, 6, 393-409.
- Seligman, M. E. P. (1975). *Helplessness: On depression, development and death*. San Francisco: Freeman.
- Shapiro, D. (1956). Color-response and perceptual passivity. *Journal of Projective Techniques*, 20, 52-69.
- Shapiro, D. (1960). A perceptual understanding of color response. In M. Rickers-Ovsiankina (Ed.), *Rorschach psychology*. New York: Wiley.
- Sherman, M. H. (1955). A psychoanalytic definition of Rorschach determinants. *Psychoanalysis*, 3, 68-76.
- Silberg, J. L., & Armstrong, J. G. (1992). The Rorschach test for predicting suicide among depressed adolescent inpatients. *Journal of Personality Assessment*, 59, 290-303.
- Silva, D. (2001). The effect of color on the productivity in Card X of the Rorschach. *Rorschachiana*, 25.
- Singer, J. L. (1960). The experience type: Some behavioral correlates and theoretical implications. In M. Rickers-Ovsiankina (Ed.), *Rorschach psychology*. New York: Wiley.
- Singer, J. L., & Brown, S. L. (1977). The experience type: Some behavioral correlates and theoretical implications. In M. A. Rickers-Ovsiankina (Ed.), *Rorschach psychology* (2nd ed.). Huntington, NY: Robert E. Krieger.
- Singer, J. L., & Herman, J. (1954). Motor and fantasy correlates of Rorschach human movement responses. *Journal of Consulting Psychology*, 18, 325-331.
- Singer, J. L., & Spohn, H. (1954). Some behavioral correlates of Rorschach's experience-type. *Journal of Consulting Psychology*, 18, 1-9.
- Sommer, R., & Sommer, D. T. (1958). Assaultiveness and two types of Rorschach color responses. *Journal of Consulting Psychology*, 22, 57-62.
- Steisel, I. M. (1952). The Rorschach test and suggestibility. *Journal of Abnormal and Social Psychology*, 47, 607-614.
- Stormont, C. T., & Finney, B. C. (1953). Projection and behavior: A Rorschach study of assaultive mental hospital patients. *Journal of Projective Techniques*, 17, 349-360.
- Stotsky, B. A. (1952). A comparison of remitting and nonremitting schizophrenics on psychological tests. *Journal of Abnormal and Social Psychology*, 47, 489-496.
- Swift, J. W. (1945). Rorschach responses of eighty-two pre-school children. *Rorschach Research Exchange*, 7, 74-84.
- Townsend, J. K. (1967). The relation between Rorschach signs of aggression and behavioral aggression in emotionally disturbed boys. *Journal of Projective Techniques and Personality Assessment*, 31, 13-21.
- Wallen, R. (1948). The nature of color shock. *Journal of Abnormal and Social Psychology*, 43, 346-356.
- Weigel, R. B., & Exner, J. E. (1981). *EB style and preference for interpersonal and impersonal slides among nonpatient adults*. Rorschach Workshop (Study No. 291, unpublished).
- Weiner, I. B., & Exner, J. E. (1991). Rorschach changes in long-term and short-term psychotherapy. *Journal of Personality Assessment*, 56, 453-465.
- Wiener, M. (1989). Psychopathology reconsidered: Depressions interpreted as psychosocial transactions. *Clinical Psychology Review*, 9, 295-321.
- Zuckerman, M. (1971). Dimensions of sensation seeking. *Journal of Consulting Psychology*, 36, 45-52.

CHAPTER 17

Information Processing

The variables related to information processing constitute one of three clusters that contain data regarding the cognitive activities of a person. Collectively, they are sometimes known as the *Cognitive Triad*. The three clusters consist of (1) *information processing*, which involves the mental procedures entailed in the input of information; (2) *cognitive mediation*, involving the mental operations that occur when information that has been input is translated or identified; and (3) *ideation*, that refers to the thinking process that occurs after inputs have been identified, and which leads to some form of mental conceptualization of the information that has been translated.

Research suggests that the data in the three clusters are relatively independent of each other, and research findings from experimental psychology suggest that each of these three operations is related to a relatively distinct element of the perceptual-cognitive process. However, it also seems clear that the results of the operations in one element can have a very direct influence on the operations in either of the other two elements. Therefore, it is not unrealistic to assume that, as a collective of functions, they reflect a continuous process that forms the basis for essentially all deliberate and/or meaningful behaviors. The process can be illustrated simply as:



Actually, a circular illustration might be more appropriate because, in many instances, preestab-

lished conceptual sets influence the tactics applied in processing information. Likewise, the manner in which an input is mediated (translated) can easily impact on the conceptualization of an input. The interrelationship between the three functions requires that the three clusters be studied collectively but, when interpreting the Rorschach, it seems best to study each separately, and then integrate the hypotheses that have been generated after all three have been reviewed.

Except in cases when information about ideation seems vital at the onset of interpreting a record, the review of the Cognitive Triad clusters begins with the data for processing, followed by a review of the data set for mediation, and finally the cluster concerning thinking. This order is most appropriate because it begins by focusing on the strategies and operations that cause information to be input into the mental system.

Processing involves scanning a stimulus field and creating images (icons) of the field, or its parts, in short-term memory. Many elements such as motivation, issues of economy, achievement needs, defensiveness, preestablished sets or preconceived attitudes, and so on, can influence processing strategies in a given situation. Nonetheless, most people develop general processing habits that manifest when they input most new information. Thus, when confronted with 10 figures that contain many ambiguous and semi-ambiguous features, the accumulated responses that are given by a person taking the test provide some information from which inferences can be drawn concerning the motivation,

quality, and typical approach that characterizes the processing effort of that individual.

For example, some people give a *W* response to every card even though the sort of processing effort required to form a *W* answer varies considerably from blot to blot. Much more scanning is required to form a *W* when the stimulus field is broken, as on Cards III, IX, and X, whereas less scanning is necessary to form a *W* rather than a *D* answer when the stimulus field is solid, as in Cards I, IV, and V. Thus, the conservative or lackadaisical processor usually gives *W*'s only to the solid blots and gives the easier to form *D* responses to the blots that have a more broken field. Similarly, some individuals frequently break the blot image apart and synthesize its parts into complex answers (*DQ+*) while others tend to give more simple answers that involve a single object, or even deliver responses that ignore the form features of the field (*DQv*). The former requires a careful scanning and rescanning of the field, while the latter involves a casual, less sophisticated kind of processing effort.

Whatever approach is used, it can have an impact on the way in which the image is translated and/or conceptualized. This is one of the reasons that the interpreter must always be aware of the necessity to *review again* the hypotheses developed from each of the data sets in the cognitive triad after the data for all three have been interpreted. This should be done regardless of the order in which the three clusters of the triad are addressed, because the findings from each cluster often will provide important clarification for the findings from the other two clusters.

RORSCHACH VARIABLES RELATED TO PROCESSING

Although all of the variables in the processing cluster are interrelated, they also seem to fall into two subsets. One affords information regarding the processing effort or motivation. This data set consists of *Zf*, *W:D:Dd*, *W:M*, and the *Sequence*

of location codes. The second subset includes the variables *DQ*, *Zd*, and *PSV* plus a review of the *Sequence* of developmental quality codes. Collectively, this set provides information about the quality and efficiency of the processing.

Presearch Issues

The interpretation of the two data subsets focuses mainly on three questions: (1) What sort of effort is put forth in processing information related to problem solving or decision making? (2) Is the quality, efficiency, and consistency of the processing within expected parameters? (3) Are there any significant processing problems and, if so, how do they impact on the overall effectiveness of the person? These general questions are not always answered easily. This is because the breadth and depth of information available from Rorschach data about processing activities is much more limited than might be desired. This may be due to the nature of the test, but it also is probably because the topic is somewhat dull and Rorschach research concerning it has been markedly limited. Nonetheless, the limited findings can be very important and should never be addressed casually. Data for Cases 9, 10, and 11 are used to illustrate the interpretive guidelines that are used to address the findings from the processing data cluster.

Case 9

This 29-year-old was referred by a physician who has been treating her, as an outpatient, for multiple sclerosis since the initial diagnosis was confirmed 16 months ago. There have been no marked physical symptoms for the past 10 months, but she has had noticeable mood swings. At times, she has seemed very depressed for brief periods while, at other times, she has seemed almost inappropriately elated. Her physician has attributed these episodes as reactions to her illness and her attempts to adjust to it. However, recently, she revealed to him that she has been very active sexually for the past five or six months, usually having at least one different sexual partner each week. Apparently she meets these men in bars or night clubs. He believes

Case 9. Processing Variables for a 29-Year-Old Female.

EB = 4:4.5	Zf = 9	Zd = -3.5	DQ+ = 6
L = 0.21	W:D:Dd = 4:10:3	PSV = 1	DQv/+ = 0
HVI = NO	W:M = 4:4		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: Do.DdSo	VI: Do
II: W+.DS+	VII: D+
III: D+	VIII: Do.Dv
IV: Wo	IX: Do.Dd+
V: Wo.Wo	X: Do.D+.Ddo

that this behavior is potentially injurious to her physical health and suggests that it is possibly a pathological way of attempting to contend with her condition.

She is the younger of two children, having a 34-year-old brother who is married and has three children. Her father, age 63, is a railroad engineer, and her 61-year-old mother has not worked outside of the home. She graduated at age 22 from a state university with a major in library science and, shortly thereafter, married a classmate who had begun working for a shipping firm. She accepted a job as a librarian at a junior college, and continues to hold that position. The marriage lasted only 10 months, "We disagreed about most everything, he drank too much and I'm sure he got involved with other women." Their divorce was final on her 24th birthday. She says that she enjoys her work and likes to meet people. She notes that, after her divorce, she dated "occasionally" but, about a year ago, she began going out four or five nights each week with two friends to various places frequented by "singles." She believes that her physician is overreacting to her behavior, "He's just conservative. I know about precautions and I don't just jump into bed with anyone."

She notes that, after being diagnosed with MS, she did participate in weekly psychotherapy for "about eight months, and it really helped me to understand things," but argues that "I don't need that sort of thing now." She says that she would like to marry "if I can find the right guy." Her physician asks if a reentry into psychotherapy seems appropriate. He raises questions about her reality testing, her apparent mood swings, and asks if her sexual activity is some form of defensiveness concerning her medical condition.

Case 10

This 20-year-old male was referred by the Dean of Students of a small liberal arts college. Students at the college usually study a general curriculum, but some major in philosophy and religion with the intent of entering the ministry. This young man has selected the latter and, currently, is completing his second year. The referral notes that he has consistently achieved above average grades, but has become well known for a condescending attitude that he conveys when interacting with other students. He has been cautioned previously about his

Case 10. Processing Variables for a 20-Year-Old Male.

EB = 7:6.0	Zf = 14	Zd = +4.0	DQ+ = 12
L = 0.61	W:D:Dd = 4:18:7	PSV = 0	DQv/+ = 0
HVI = YES	W:M = 4:7		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: WSo.DS+	VI: D+.D+
II: D+.Do.D+.Ddo	VII: D+.Do.DSo
III: D+.Dd+.Do	VIII: W+.Dd+.Dv.Ddo
IV: W+.Ddo	IX: DdS+.Ddo.Do
V: Wo.Do	X: Do.Do.Do.Do

disdain for his peers and his verbal aggressiveness toward them, but his behaviors have not changed. He justifies his attitude by suggesting that he has a "special" gift to preach God's word and that it would be hypocritical if he ignored the "slothfulness" of his peers. When the notion of a special gift is pursued, he notes having had "visions" while in chapel, and reports a significant dream involving a "visitation."

He is the third of three children. His brother, age 25, is an electrical engineer. His sister, age 23, is a computer programmer. His father, age 53, is a regional sales manager for a manufacturing firm. His mother, age 48, has not worked outside of the home. He graduated with honors from high school at age 18 and has no work history. He was irritated by the evaluation and suggests that others may be jealous of his commitment. He adamantly argues that he has no special powers, but that his religious experiences have strengthened his dedication to others. He says that he would like to work in underprivileged areas and has considered the possibility of missionary service. The referral asks if there is any evidence of a serious psychiatric disturbance, and for recommendations about how best to contend with the interpersonal problems that he is experiencing.

Case 11

This 41-year-old female was evaluated 10 days after being admitted to a psychiatric hospital after a three-day alcoholic "binge," during which time she was missing from her home. She was found sleeping in a motel room and was disoriented when awakened. This is a second occurrence. The first occurred four years ago when she was missing for eight days and was found unconscious in a hotel. She was entered in a detoxification program and discharged after 12 days. On the insistence of her husband, she entered psychotherapy, but terminated after seven visits. She reports that she has been attending AA meetings for the past two years and believes she was making improvement until a recent argument with her husband.

She began drinking at age 20, and also became involved with drugs at that time (marijuana, LSD, and cocaine), but found that none afforded her the relief that she finds in drinking. She reports that, as the second child and only daughter in her family, she always felt "inadequate." Her father died 10 years ago. Her mother, age 68, lives with her brother and is reportedly suffering early stages of Alzheimer's disease.

She dropped out of college at age 21 and began working in cosmetic sales for a department store. Shortly thereafter, she began dating her future husband who had graduated from college that year and was working for a textiles firm. They married when she was 23. She freely admits, "When he asked me, I jumped at the chance to get out of my house and out of my job." Her husband is now in management, and travels frequently outside of the United States. She reports that when he first began traveling in his work, about 12 years ago, she accompanied him on two or three trips, but often became annoyed finding herself in a foreign city without language skills, and with a person who was busy for most of the day. About that time, she became pregnant. She says that when her son, now 10, was born, "I threw myself into motherhood," and drank very little for the next five years. When he entered school, she became irritated and depressed. She says that it was then that she began drinking heavily, and by the time the son was in the second grade she had experienced her first series of blackouts.

When she first began drinking heavily, it was usually at home, but then she found that the companionship of people in different bars seemed to improve her life even though it was destructive to her family. She states that she would usually employ a baby-sitter, sometimes overnight, and go "out drinking" when her husband was away. She concedes that she probably has had many sexual experiences, but cannot recall much about many of them. She says that she is not interested in sex, "It probably just happens." She says that when her husband forced her into detoxification she felt angry and considered divorce, but was worried about the custody of their son. She admits that her son has been disappointed with her, and that she feels guilty about her failure to respond more positively and consistently to him. She says, "Sometimes I just feel a need for escape," and admits to suicidal thoughts during the past year. She says that she is willing to enter therapy again, but notes that she feels uncertain and pessimistic about her marriage. She expresses concern about her relationship with her son, which she admits is very superficial and somewhat fragile, but feels that if she can "stay dry" she can reconstruct a closer relationship with him. Neuropsychological evaluation shows some moderate impairment. Her performance on the WAIS-R yields a verbal IQ of 112, and performance IQ of 119, with considerable scatter among subtests (9-13 verbal;

Case 11. Processing Variables for a 41-Year-Old-Female.

EB = 4:6.0	Zf = 15	Zd = -2.0	DQ+ = 9
L = 0.20	W:D:Dd = 15:2:1	PSV = 0	DQv/+ = 1
HVI = NO	W:M = 15:4		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: Wo.Wo.W+.W+	VI: W+.D+
II: W+	VII: W+
III: W+	VIII: W+.Do
IV: Wo	IX: Wv/+.Ddo
V: Wo.Wo	X: W+.Wv

7-16 performance). Assessment issues are: (1) to what extent is prolonged hospitalization preferable to outpatient care, (2) what are the major assets and liabilities of her personality in relation to treatment, (3) is there any evidence of danger to herself, (4) to what extent might she be amenable to marital therapy at this time.

INTERPRETIVE ROUTINE

Prerequisites (*EB*, *Lambda*, *OBS*, *HVI*)

The interpretation of some processing data must be formulated in the context of response styles or sets. Therefore, information about the *EB*, *Lambda*, and whether the *OBS* or *HVI* are positive, are prerequisites necessary to ensure that the interpretation is done in an appropriate context. The presence of an introversive, extratensive, avoidant, obsessive, or hypervigilant style establishes that context. The meaning of the variables *does not change* but, for some, information about the presence of a style, or composite of styles, leads to the formation of more precise interpretive postulates and conclusions.

For instance, the *W:M* ratio concerns motivation, but it cannot be interpreted accurately without *EB* findings. This is because introversive people usually give more *M* responses than do extratensives, although both groups tend to give about the same number of *W* answers. Similarly, when the findings indicate the presence of an avoidant style (*Lambda* > 0.99), a question should be raised about whether the orientation to economize and/or simplify is reflected in the processing effort. Most people with an avoidant style are

conservative when processing new information, and frequently will be less thorough than others. This is not necessarily detrimental but, sometimes, the avoidant style becomes overly influential and can have a negative impact on the quality or efficiency of processing operations.

Likewise, if the *OBS* or *HVI* are positive, definite expectations exist regarding the processing effort and the quality of the input. When the *OBS* is positive, it signals the presence of a marked tendency toward perfectionism and a preoccupation with details. People such as this usually are very cautious in their processing behaviors as they are influenced by needs to be precise. When done to excess, this feature becomes counterproductive and creates processing problems that impact on mediation and/or ideation. If the *HVI* is positive it signals a state of hyperalertness. Individuals such as this are guarded and mistrusting of the environment. They usually are very concerned about processing new information, and often invest considerable effort to ensure that all features of a stimulus field are surveyed carefully. In many instances, this breeds a superior processing effort but, if pathology is present, the hyperalertness typically includes influential preoccupations that prompt an unusual concern for details. This will often cause the person to disregard the whole stimulus field and, when this occurs, the processing activity becomes chaotic, inefficient, and tends to promote faulty mediation.

Once the prerequisites have been reviewed, the first part of the interpretive routine addresses the

issue of effort that has been invested in processing. There are two data points, *Zf* and *W:D:Dd*, that provide basic information about this issue. However, the hypotheses derived from each are very tentative and become meaningful *only* when they are integrated at Step 3, which involves a review of the location sequencing. Subsequently, the focus of the interpretation shifts to the issues of motivation, efficiency, and quality as the *W:M* ratio, *Zd* score, perseveration score, and developmental quality scores are reviewed.

Step 1: *Zf*

The frequency of the number of responses to which a *Z* score has been assigned provides a rather crude estimate of processing effort. The estimate is crude because a *Z* score may be assigned for any of three types of answers. They include (1) *W* responses that specify form or have a form demand, (2) segments of the blot have been identified as separate objects and then meaningfully integrated in the response, or (3) white space areas that are integrated into the blot area used in the response.

As noted earlier, some *W* answers are formed more easily than *D* responses. Therefore, four or five *Z*'s can be expected in almost every record because of simple *W* answers. The breaking apart of the blot into separate objects and reintegrating those objects in a meaningful way requires more scanning, and probably the creation of a more precise image in short-term memory. Similarly, the integrated use of white space in a response requires a more complex processing effort than is necessary to form the simple *W* answer. Thus, while average or expected ranges for *Zf* are easily established, the datum becomes much more meaningful as an indicator of effort when reviewed in relation to other processing variables.

Potential Finding 1: If the value for *Lambda* is less than 1.0, the *Zf* value is expected to fall between 9 and 13 regardless of whether the person is an ambivalent, extratensive, or introversive.

This expected range is applicable for children as well as adults. If the value falls within this range it can be surmised that the processing effort is similar to that of most people. When the value is greater than expected, it suggests that more effort than is customary has been invested in processing the blot fields. When the value is less than expected, it indicates a more conservative or possibly lackadaisical processing approach. Proceed to Step 2.

Cases 9, 10, and 11 Findings

All have *Lambda* values less than 1.0. Case 9, an ambivalent, has a *Zf* of 9, which is at the lower end of the expected range. Case 10, also an ambivalent, has a *Zf* of 14, which is greater than expected. This is not surprising because he has a hypervigilant style. Hypervigilant people are cautious, and usually work hard to ensure that they do not miss anything. The datum for Case 11 is more surprising in light of the fact that neuropsychological testing has indicated some moderate impairment. People with impairment usually are rather conservative in their processing efforts. However, she has a *Zf* of 15 indicating that she works hard to organize new fields. It will be important to determine whether this effort is productive for her.

Potential Finding 2: If the value for *Lambda* is 1.0 or higher, indicating an avoidant style, the *Zf* value is expected to fall between 6 and 10. The expected range appears to be lower for those with avoidant styles because of their tendency to economize and avoid complexity. This does not mean that the processing effort is inadequate. It simply reflects the cautious or conservative orientation that is consistent with the avoidant style. If the *Zf* value is greater than expected it indicates more effort than expected and raises a question about why that has occurred. If the value is less than expected, it may indicate that the influence of the avoidant style is very substantial and the limited processing effort might create a potential for adjustment problems. Proceed to Step 2.

Step 2: $W:D:Dd$

This ratio offers a perspective about the processing effort in the context of strategies and economy. It seems important to emphasize that more effort does not necessarily yield *better* processing. It simply means that the person has invested more effort in his or her processing strategy than seems necessary for the task at hand. For example, although it is true that W 's can be formed very easily to a few blots (I, IV, V), W 's to some other blots require more scanning and more effort (II, VI, VII, VIII) and, for at least three blots (III, IX, X), the creation of a W response requires considerable effort. Therefore, while giving a W answer on every blot may represent a commendable effort, it is not very economical and provides no assurance that the responses will be "better" than if some other strategy had been used.

The opposite is true for D responses. D areas are reasonably easy to distinguish on every blot, except Card V. Thus, it is more economical to give D responses and, as the person taking the test feels pressed to give multiple answers, a natural tendency toward processing economy usually occurs. Location distributions for almost every group of adults and children older than age nine will show more D responses than W answers. In addition to the fact that D responses usually require less processing effort than most W answers, there is another reason why the distributions show more D than W responses. It is that the potential number of W responses that are consistent with the form features of the field are fewer in all blots than are the potentials for D answers that are form appropriate.

On the other hand, almost all Dd answers are formed only after considerable scanning has occurred. Usually, they require more processing effort. The only exceptions to this are those Dd responses that are created by a complete figure ground reversal and involve the exclusive use of white space. Thus, when the $W:D:Dd$ ratio is studied, the expectation is that the D frequency

will be between 1.3 and 1.6 times *greater* than the W frequency, and that the frequency for Dd will not exceed 3. This expectation is applicable regardless of EB style or Λ values. The *only* exception is for children less than age 10. They typically give at least as many W 's as D 's and sometimes will give more W answers. Often, these are Wv responses that occur because the youngster is casual about the task and unconcerned with the complexity of the field. Young children who are uncertain about, or threatened by, the test situation tend to give more Dd responses.

Potential Finding 1: When the values for the variables in the $W:D:Dd$ ratio fall within the expected range ($1:1.3$ to $1.6:Dd < 4$), it is likely that the processing effort and strategies used are similar to that of most people. It is very important, however, to regard this hypothesis as being tentative until the location sequence is reviewed in Step 3. The location sequence usually provides clarification of the findings from Steps 1 and 2 regarding effort or motivation. Proceed to Step 3.

Potential Finding 2: When the values for any of the three variables in the $W:D:Dd$ ratio are inconsistent with the expected ranges, it signifies something unusual about the processing effort and/or strategy. Several possibilities exist and the data must be reviewed carefully as any of the following postulates may be applicable. Proceed to Step 3 after all are reviewed.

2a. If the values in the $W:D:Dd$ ratio show a greater than expected proportion of W responses and the value for Dd does not exceed 3, it suggests that more effort has been invested in processing than might be expected. This postulate is strengthened considerably if the value for W is greater than 8. If the proportion of W responses is greater than expected but the frequency of Dd answers exceeds 3, the finding should be reviewed in the context of possibilities provided in 2c.

Case 11 Finding Positive

The $W:D:Dd$ relationship of 15:2:1 indicates that much more effort has been invested in processing than is expected. This coincides with the finding concerning the Zf and raises a question about the quality of this effort, which probably will not be fully answered until the clusters regarding mediation and ideation are reviewed.

2b. If the $W:D:Dd$ ratio shows a greater than expected proportion of D responses, it indicates that the person has been very economical in the processing effort. This is especially true if the proportion of D answers is two or more times greater than the proportion of W responses and the frequency of Dd answers is less than 4. If the frequency of Dd responses is greater than 3, the economy suggested by the large proportion of D answers may not be so substantial and the finding should be reviewed in the context of possibilities provided in 2c.

Case 9 Finding Positive

The $W:D:Dd$ ratio of 4:10:3 indicates a very conservative and economical form of processing. Sometimes, an approach such as this may signify a lack of confidence but, in other instances, it may reflect a subtle form of refusal to become very involved with new experiences.

2c. As noted earlier, Dd responses do not reflect economical processing. Usually, they are formed only after considerable scanning has occurred and the image stored in short-term memory has been reformulated. When the frequency of Dd responses is greater than three, it generally indicates a kind of atypical processing that involves more scanning shifts than common and a focus on the minute or unusual features of the blots. This requires that the interpretation of the $W:D:Dd$ ratio be cast in the context of the greater than expected number of Dd answers. The general principles

Case 11. Processing Variables for a 41-Year-Old-Female.

EB = 4:6.0	Zf = 15	Zd = -2.0	DQ+ = 9
L = 0.20	W:D:Dd = 15:2:1	PSV = 0	DQv/+ = 1
HVI = NO	W:M = 15:4		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: Wo.Wo.W+.W+	VI: W+.D+
II: W+	VII: W+
III: W+	VIII: W+.Do
IV: Wo	IX: Wv/+.Ddo
V: Wo.Wo	X: W+.Wv

Case 9. Processing Variables for a 29-Year-Old Female.

EB = 4:4.5	Zf = 9	Zd = -3.5	DQ+ = 6
L = 0.21	W:D:Dd = 4:10:3	PSV = 1	DQv/+ = 0
HVI = NO	W:M = 4:4		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: Do.DdSo	VI: Do
II: W+.DS+	VII: D+
III: D+	VIII: Do.Dv
IV: Wo	IX: Do.Dd+
V: Wo.Wo	X: Do.D+.Ddo

concerning the *W* to *D* relationship specified in 2a and 2b remain viable but will be modified in terms of the *Dd* finding.

For instance, when the *W* is proportionally greater than *D*, the hypothesis concerning more effort is reinforced by the presence of the higher frequency of *Dd* answers. However, the reason for the finding becomes critical. Similarly, when the proportion of *D* answers is greater, the hypothesis regarding unusual economizing will be strengthened by a realistic explanation for the *Dd* responses. Any of three explanations are possible:

1. An obsessive-like tendency toward perfectionism may exist that causes the person to become unnecessarily preoccupied with the minutiae of the stimulus field. People such as this, especially if positive on the OBS, usually do not give more *W* than *D* responses. This is because they frequently feel uncomfortable about their decision-making capabilities and find it easier to deal with less complex, more easily managed stimulus fields.
2. The person is very guarded or mistrustful and tries to minimize involvement with any perceived ambiguity. One way of doing this is to select or create *Dd* areas that seem to have precise delineations. It is not uncommon to find this approach among those with an avoidant style, or among those who are positive on the HVI.
3. A negativistic set may exist that prompts the individual to become overly involved with the

use of white space. Although some responses involving white space will be coded as *WS* or *DS*, an excessive use of white space usually will include the use of *DdS* locations, thereby causing the *Dd* frequency to be elevated. This kind of unusual processing strategy is not specific to any group, but is common among those who are in significant emotional disarray.

Case 10 Finding Positive

The *W:D:Dd* of 4:18:7 is unusual, but not inconsistent with his hypervigilant style. The presence of a large number of *D* and *Dd* answers suggests that he may be prone to be inappropriate in his disregard for the totality of situations. If this is true, it is likely to have a noticeable impact on his thinking and/or reality testing.

Step 3: Location Sequence

A review of the location sequencing is necessary for two purposes. The first is to provide information about which blots produced *W* responses. This is an important source from which to evaluate the hypotheses formulated in Steps 1 and 2. The second is to study whether the processing effort and strategy have been reasonably consistent throughout the test. This provides another perspective about the processing habits of the person. The sequence of *W* responses usually will offer support for the Steps 1 and 2 postulates, but sometimes the sequencing data will cause one or both of those postulates to be modified or even rejected. This is especially true when Steps 1 and 2 yield inconsistent hypotheses.

Case 10. Processing Variables for a 20-Year-Old Male.

EB = 7:6.0	Zf = 14	Zd = +4.0	DQ+ = 12
L = 0.61	W:D:Dd = 4:18:7	PSV = 0	DQv/+ = 0
HVI = YES	W:M = 4:7		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: WSo.DS+	VI: D+.D+
II: D+.Do.D+.Ddo	VII: D+.Do.DSo
III: D+.Dd+.Do	VIII: W+.Dd+.Dv.Ddo
IV: W+.Ddo	IX: DdS+.Ddo.Do
V: Wo.Do	X: Do.Do.Do.Do

For instance, a Structural Summary might show a Zf of 10 and a $W:D:Dd$ ratio of 9:11:1. The Zf value implies an average level of effort while the $W:D:Dd$ values suggest that the person may have worked harder than expected because of the high proportion of W answers. If the sequencing of W responses reveals that two each appear as answers to Cards I, IV, V, and VII, and the ninth W was given to Card VI the astute interpreter would conclude that the W to D relationship of 9:11 is misleading because six of the nine W 's are given to blots for which a W is easy to create (I, IV, V) and the remaining three are given to blots in which the difficulty level for a W is, at best, moderate. In other words, the postulate derived from the Zf is the more appropriate. Conversely, the same Zf and $W:D:Dd$ values might occur in a protocol in which one W is given to Cards I, II, IV, V, VII, VIII, and X and two W 's are given to Card IX. This is an impressive array and signifies a very substantial processing effort. In this instance, the Zf is misleading and the postulate about effort derived from the $W:D:Dd$ is much more accurate.

In some instances, the data for both Zf and $W:D:Dd$ can be quite misleading and clarified only by a review of the location sequence. These are cases in which the person taking the test is probably not well prepared by the examiner and a situationally created cautiousness occurs. As a result, the person typically gives very simple D or Dd responses through the first four or five blots. It is not unusual for some of these to include the use of white space. Once the individual becomes more comfortable with the situation, he or she gives four or five W answers to the last five blots. The resulting data might show a Zf as low as 6 or 7, and the $W:D:Dd$ ratio might, for example, be 5:10:3, both of which suggest an overly economical and casual effort. In reality, the effort has been quite substantial after the individual adapted to the task.

As noted, the second purpose for studying the location sequence is to determine if the approach to processing is consistent. The positioning of W answers is especially important. People who are

consistent will be disposed to give *most* of their W answers either as first answers or as last answers. Those who are inconsistent are more prone to scatter their W answers. A similar pattern of consistency is expected for Dd responses when the number of Dd 's in a record is greater than expected. Most of the time Dd 's are not expected to be first responses. In fact, most Dd 's will occur last in the sequence of responses to a blot.

Whenever the sequencing patterns vary considerably across cards, especially for W and Dd answers, it can be concluded that the processing effort and strategy during problem solving or decision making tends to be irregular. While this is not uncommon among children, an inconsistent pattern in the record of an adolescent or adult suggests a lack of efficiency in processing habits. While this may not be a major liability, an inconsistency in processing habits can increase the potential for faulty inputs or a reduced quality of processing activity, regardless of the effort that might have been expended.

Potential Finding 1: If the hypotheses concerning processing effort derived from Steps 1 and 2 agree, the sequencing of the W answers is expected to support those postulates. If the Steps 1 and 2 hypotheses agree but the sequence does not support either, both should be modified accordingly. Similarly, if the sequencing of location selections, especially W and Dd , appears reasonably consistent through most of the record, it can be assumed that processing efforts and habits are regular and predictable. If the sequencing of location selections is markedly inconsistent, the hypotheses concerning processing effort and strategy should be modified to note the irregularity of effort and/or strategy.

Case 11 Finding

The findings from the data for Zf , and the $W:D:Dd$ both suggested that she invests a great deal of effort in processing new information. The location sequence not only confirms that postulate, but also

Case 11. Processing Variables for a 41-Year-Old-Female.

EB = 4:6.0	Zf = 15	Zd = -2.0	DQ+ = 9
L = 0.20	W:D:Dd = 15:2:1	PSV = 0	DQv/+ = 1
HVI = NO	W:M = 15:4		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: Wo.Wo.W+.W+	VI: W+.D+
II: W+	VII: W+
III: W+	VIII: W+.Do
IV: Wo	IX: Wv/+.Ddo
V: Wo.Wo	X: W+.Wv

indicates that she is very consistent in her processing approach. She gives *W* responses to each card, with multiple *W*'s being given to Cards I, V, and X. Her two *D*'s and single *Dd* are all second responses.

Potential Finding 2: If the hypotheses derived from Steps 1 and 2 do not agree, the sequencing of the *W* responses should provide adequate data from which to identify the more accurate of the two. As with Potential Finding 1, the sequencing of location selections is expected to be reasonably consistent throughout the record, particularly for the *W* and *Dd* selections. If that is true, it can be assumed that processing habits are regular and predictable. If, however, the sequencing of location selections is markedly inconsistent, the hypotheses concerning effort and strategy should be modified to note the irregularity of effort and/or strategy.

Case 9 Finding

The finding from *Zf* suggested that she invests about as much effort as most people in processing

new information. However, the data in the *W:D:Dd* ratio indicated that she is more conservative and economical than most people. The location sequence supports the latter. Three of her four *W* answers were given to Cards I and V and the remaining one is to Card II. All of her *Dd* responses are last answers. This is clearly a very economical approach that agrees with the postulate about economy and caution that was developed from Step 2. In general, she seems to be a person who does not work very hard to process new information and is quite routine in this tendency to be economical.

Case 10 Finding

The *Zf* datum indicated considerable processing effort but the *W:D:Dd* finding suggested that he may become overly involved in details at the expense of the total situation. The location sequencing tends to support both postulates. The fact that he gives multiple answers to every card signifies considerable effort. However, the scattering of the seven *Dd* answers suggests an excessive preoccupation with details. One (Card IX) is a first answer, four others (Cards III, IV, VIII, and IX) are second answers,

Case 9. Processing Variables for a 29-Year-Old Female.

EB = 4:4.5	Zf = 9	Zd = -3.5	DQ+ = 6
L = 0.21	W:D:Dd = 4:10:3	PSV = 1	DQv/+ = 0
HVI = NO	W:M = 4:4		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: Do.DdSo	VI: Do
II: W+.DS+	VII: D+
III: D+	VIII: Do.Dv
IV: Wo	IX: Do.Dd+
V: Wo.Wo	X: Do.D+.Ddo

Case 10. Processing Variables for a 20-Year-Old Male.

EB = 7:6.0	Zf = 14	Zd = +4.0	DQ+ = 12
L = 0.61	W:D:Dd = 4:18:7	PSV = 0	DQv/+ = 0
HVI = YES	W:M = 4:7		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: WSo.DS+	VI: D+.D+
II: D+.Do.D+.Ddo	VII: D+.Do.DSo
III: D+.Dd+.Do	VIII: W+.Dd+.Dv.Ddo
IV: W+.Ddo	IX: DdS+.Ddo.Do
V: Wo.Do	X: Do.Do.Do.Do

and the remaining two (Cards II & VIII) are last answers. It is a very irregular approach, suggesting that the efficiency and effectiveness of his processing are impaired, probably as a result of his hyper-vigilant style.

Step 4: *W:M*

The *W:M* is sometimes referred to as an aspirational ratio. This is because most *W*'s signal the investment of more effort than might be necessary for the task, and *M* responses relate to reasoning, higher forms of conceptualization, and the process of giving direction to ideational focusing. As such, the frequency of *M* responses can be regarded as a crude index of the kinds of functional capabilities that are available for achievement oriented activities.

The *W:M* ratio provides less direct information about processing effort than the *Zf* or *W:D:Dd* ratio in that it seems to relate more broadly to the achievement orientation of the individual. Nonetheless, if used logically, it can help evaluate the processing effort, and sometimes provide interesting insights about very substantial efforts or those that seem overly conservative. The interpretive rationale is based on the premise that the processing effort should be consistent with the person's available resources.

This ratio has interpretive significance when the relationship between *W* and *M* is disproportionate, that is, a substantially larger or smaller number of *W*'s occur in relation to the number of

M responses that have been given. The decision about whether the *W:M* relation is disproportionate must be judged in the context of the *EB*. This is because introversives usually give more *M* than most extratensives, and ambitents usually give more *M* than extratensives, but less *M* than introversives. At the same time, all three groups tend to give about the same number of *W* answers.

Potential Finding 1: The proportion of *W* answers is substantially greater than the number of *M* responses when considered in relation to the *EB* style. This is true if the ratio exceeds 1.5:1 for introversives, 2:1 for ambitents, or 3:1 for extratensives.

When this finding is positive, it indicates that the person is striving to accomplish more than may be reasonable in light of current functional capacities. If this tendency occurs in everyday behaviors, the probability of failure to achieve objectives is increased, and the consequent impact of those failures can often include the experience of frustration. This hypothesis is strengthened considerably if the *DQ* distribution shows a low frequency of *DQ+* responses. It is important to note that, although this is a significant finding for adults and older adolescents, it is commonplace among children and younger adolescents. Most 5- and 6-year-olds have a *W:M* ratio between 5:1 and 8:1, and an even greater differential is not uncommon.

Similarly, 9-, 10-, and 11-year-olds often have $W:M$ ratios of 4:1 or greater, and 3:1 ratios are common among 12-, 13-, and 14-year-olds. Youngsters are notorious for overestimating their capacities and setting very high goals. Fortunately, they are also notorious for placing little value on most of those goals, and are usually able to deal with the consequences of failure in a more casual way, so that any impact of frustration is relatively brief. Proceed to Step 5.

Case 11 Finding Positive

The $W:M$ ratio for Case 11 is disproportionate. She is an extratensive with a $W:M$ of 15:4, which reduces to nearly 4:1, suggesting that she may be striving to accomplish more than is reasonable, given her functional capabilities. Her motive to achieve may be commendable but, when considered in light of her history and the moderate impairment indicated by neuropsychological findings, it may also serve as a liability by increasing the risk of failure.

Potential Finding 2: The proportion of W responses is disproportionately low in relation to the M frequency when considered by EB style. This is true when the ratio is 1.2:1 or lower for extratensives and ambitents, and 0.75:1 for introversives.

When this finding is positive, it suggests that the person is very cautious, overly conservative, or possibly even lackadaisical when defining objectives for achievement. The differentiation between "cautious-conservative" and "lackadaisical" usually can be determined by using the Zf . If the Zf is average, or especially if it is above average, the person has been cautious and/or conservative about setting achievement objectives. If the Zf is below average, the person probably has been overly economical and somewhat lackadaisical about establishing achievement objectives. Individuals with an avoidant style often show this pattern. Proceed to Step 5.

Cases 9 and 10 Findings Positive

In Case 9, the $W:M$ of 4:4 reduces to 1:1, which is unusual for an ambitent. Her Zf is in the average range. The $W:M$ ratio suggests that she is very cautious and somewhat conservative about defining achievement goals. This seems consistent with other findings concerning her processing effort.

The Case 10 $W:M$ of 4:7 reduces to about 0.57:1, which is very disparate for an ambitent. He has a Zf of 14, but he is also hypervigilant. The $W:M$ reflects the same sort of very cautious and conservative approach that is represented in the $W:D:Dd$ data.

Step 5: Zd

The Zd value is a difference score that indicates the extent to which the actual Sum of the Z scores for a protocol ($ZSum$) agrees with an estimated Sum ($Zest$), based on the frequency of organized responses (Zf). The Zd score provides an estimate about the efficiency of the scanning activity that occurred during the processing operations. At times, it also identifies persons strongly motivated to process effectively. A Zd value of between +3.0 and -3.0 is expected.

Potential Finding 1: If the Zd value falls in the average range, as is true for Case 11 (-2.0), it can be assumed that the scanning efficiency is similar to that of most people. Proceed to Step 6.

Potential Finding 2: When the value for Zd is less than -3.0, it usually signifies an *underincorporative* form of scanning activity. In other words, the subject scans hastily and haphazardly, and often may neglect critical bits or cues that exist in a stimulus field. This is common in children younger than age 10, and usually should not be cause for concern unless the child is having serious difficulties. However, in older children and adults, it can be a significant liability because underincorporation creates a potential for faulty translation of cues that are present, leading to less effective patterns of behavior. Underincorporation usually

Case 9. Processing Variables for a 29-Year-Old Female.

EB = 4:4.5	Zf = 9	Zd = -3.5	DQ+ = 6
L = 0.21	W:D:Dd = 4:10:3	PSV = 1	DQv/+ = 0
HVI = NO	W:M = 4:4		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: Do.DdSo	VI: Do
II: W+.DS+	VII: D+
III: D+	VIII: Do.Dv
IV: Wo	IX: Do.Dd+
V: Wo.Wo	X: Do.D+.Ddo

can be corrected rather easily by cognitive restructuring methods that emphasize delay and thorough scanning. Proceed to Step 6.

Case 9 Finding Positive

This woman has a *Zd* score of -3.5, which is below the expected range. She is an underincorporator. Her scanning apparently is inefficiently hasty and potentially negligent. This creates a significant liability for her in that she is prone to neglect cues that can be quite important to her decisions and behaviors. This seems strange when considered with regard to her apparently conservative and cautious processing approach. It may signify carelessness, but also hints at a tendency to avoid complexity, even though she does not have an avoidant style.

Potential Finding 3: If the value for *Zd* is greater than +3.0 it usually indicates the presence of an *overincorporative* style. Overincorporation is an enduring trait-like style that includes the exertion of more effort in scanning activities. Overincorporators apparently

want to avoid being careless, and this motivates them to invest more effort than may be necessary to scan the features of a situation. Although somewhat less efficient because of the added effort, overincorporation is often an asset because the thorough approach to scanning usually ensures that all stimulus cues are included in the input. It can become a liability if psychological disorganization is present, because the person may tend to exaggerate this style and cause unnecessary vacillation in decision making. Proceed to Step 6.

Case 10 Finding Positive

Case 10 has a *Zd* score of +4.0, indicating that he is quite thorough in his scanning activities. This finding is not unexpected in light of his hypervigilant style and other findings suggesting that he is cautious and conservative in his processing approach. However, his general approach to processing is also irregular and somewhat chaotic. Thus, this may be an instance in which the overincorporating style is more of a liability than an asset, and probably contributes to his turbulent processing effort.

Case 10. Processing Variables for a 20-Year-Old Male.

EB = 7:6.0	Zf = 14	Zd = +4.0	DQ+ = 12
L = 0.61	W:D:Dd = 4:18:7	PSV = 0	DQv/+ = 0
HVI = YES	W:M = 4:7		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: WSo.DS+	VI: D+.D+
II: D+.Do.D+.Ddo	VII: D+.Do.DSo
III: D+.Dd+.Do	VIII: W+.Dd+.Dv.Ddo
IV: W+.Ddo	IX: DdS+.Ddo.Do
V: Wo.Do	X: Do.Do.Do.Do

Step 6: Perseverations (PSV)

Regardless of the *Zd* value, the presence of PSV answers may suggest some problems in processing efficiency. Three kinds of answers are coded as PSV (within card, content, and mechanistic). The most common is the *within* card perseveration. It is coded for an answer that is nearly the same as the preceding response. It has the same location, *DQ*, determinant, form quality, and content codes, and the same *Z* score if one had been assigned.

Content PSV's are coded for answers in which the person identifies the object as the *same one* as seen previously. Content PSV's have nothing to do with processing. Rather, they provide some information about preoccupations. The mechanistic PSV is coded when the individual reports the same content over and over. It is the least common form of perseveration and typically found in brief, simplistic, and usually invalid protocols that are given by persons who are probably inappropriate for Rorschach testing because they have very serious cognitive/neurologically related problems.

Potential Finding 1: When the PSV value is one and involves a *within* card PSV, it suggests that, at times, the person has some difficulty shifting attention. This can produce less efficient processing activities. Proceed to Step 7.

Case 9 Finding Positive

There is one perseveration in this protocol and it is a *within* card PSV coded for the second answer to Card V (the first response was a butterfly, coded *Wo FC' .FMao A P 1.0*, and the second response was a bat, coded *Wo FMa.FC' o A 1.0*). This indicates that, sometimes, she may have difficulty shifting attention, and may be less efficient in processing. This seems consistent with the postulate derived from her *Zd* score.

Potential Finding 2: If the *within* card value for PSV is greater than one, it may signify the presence of significant difficulties in shifting attention. Usually, this finding is positive only among very young children, people who are in

considerable psychological disarray, or individuals who have neurologically related problems. If this finding is positive, a more careful evaluation of cognitive functioning than is available from Rorschach data is warranted. Proceed to Step 7.

Step 7: DQ Distribution

The *DQ* distribution concerns the quality of the processing activity, but it *also* relates to both mediation and conceptualization. Thus, when processing is concerned, the interpretation of the *DQ* scores must be addressed carefully. This is because processing focuses only on the input operations (scanning and creating a mental image) whereas the *DQ* code assigned to a response is based on the end product of the stream of cognitive activity that has occurred, that is, the response.

The logic on which the *DQ* scores are interpreted when evaluating processing is that "definitive" responses are formed only if the processing activity has been of sufficient quality. A definitive response is one that is reasonably precise. It has form demand or form specification and, in some instances, may involve integration of the stimulus field. *DQ+* and *DQo* answers are definitive whereas *DQv* and *DQv/+* responses are not definitive even though the latter does involve some integration.

It may be useful to think of the four *DQ* codes as being on a continuum such as shown below ranging from the most to the least sophisticated forms of cognitive activity:

DQ+ DQo DQv/+ DQv

On this continuum, the *DQ+* answers at the left end represent the highest form of analysis and synthesis. Most everyone will give some of these answers, but they occur more frequently among well educated and/or more psychologically complex people. At the opposite end of the continuum are the *DQv* answers. They involve very little analysis, no synthesis, and reflect an immature

form of cognitive activity that is concrete, impressionistic, and probably represents a diffuse and inept form of processing. They occur most frequently among children, intellectually limited, or neurologically impaired persons.

The *DQo* is slightly to the left of the continuum midpoint. It is the most frequently given answer and represents a kind of cognitive economy that does not sacrifice quality. It depicts a conservative but committed form of cognitive functioning and, essentially, involves a straightforward definition of the stimulus field or part of it. The *DQv/+* falls about halfway between the continuum midpoint and the right side endpoint. It is the least frequent of the four *DQ* types. When it appears in the records of younger children it is probably a positive sign, indicating an orientation toward a higher level of cognitive activity. However, *DQv/+* answers are unexpected in the records of adolescents and adults as they tend to denote an attempt at synthesis that has been flawed or impaired, probably by faulty processing.

It is important to emphasize that definitive responses (*DQ+* and *DQo*) are not synonymous with efficiency or effective adjustment. Cognitive operations, including processing, may be very complex and sophisticated, but the end product (the response or behavior) may not be grounded in reality or oriented toward adaptive adjustment. In fact, many serious symptom patterns and many inappropriate behaviors cannot evolve without the presence of very elaborate cognitive operations.

Expected Ranges and Values

The expected range for two of the *DQ* codes, *DQ+* and *DQv*, varies with *EB* style among adults and adolescents. Introversives tend to give more *DQ+* answers than ambitents and extratensives. This is because introversives give more human movement answers, and *M* is more likely to involve synthesis than most other answers. Extratensives tend to give more *DQv* responses than introversives or ambitents. This difference apparently occurs because extratensives tend to

respond more to chromatic color features, and are more likely to give diffuse answers involving color that may have no form demand, such as blood, fire, foliage, paint.

Interestingly, the presence or absence of an avoidant style has no noticeable impact on these ranges. Usually, people with an avoidant style give as many *DQ+* answers as those who do not have this style and tend to give as few *DQv* responses as most others. Apparently, the avoidant style does not affect the quality of processing even though it may influence effort. On the other hand, processing efficiency, as reflected by the *Zd*, does have some relationship to *DQv* and *DQv/+* responses. These types of answers are given about twice as often by underincorporators as by overincorporators, but this difference is not necessarily regular. Some overincorporators who are in disarray often give an unexpectedly high frequency of *DQv* and *DQv/+* answers. When this occurs, it indicates the impact of the disarray on the quality of processing.

The *DQ+* value for adult and adolescent *ambitents* and *extratensives* is expected to fall between 5 and 8, while the value for adult and adolescent *introversives* is expected to fall between 7 and 10. This *EB*-based differentiation is not applicable for children younger than age 12. The value for children under age 12 is expected to be between 5 and 8. The value for *DQv* is expected to be zero or one for adult and adolescent *introversives* and *ambitents*. The value is expected to be one or two for adult and adolescent *extratensives*. Higher values for *DQv* are common among children. In fact, as many as four is not unusual for children under the age of 10. *DQv/+* responses are uncommon for both adults and children. The expected value for adults and older children is zero, but one is not unusual for youngsters under the age of 10.

Potential Finding 1: If the value for *DQ+* falls in the expected range, and the combined value of *DQv* and *DQv/+* is not greater than one for an introversive or ambitent, or two for an extratensive, it can be assumed that the

Case 9. Processing Variables for a 29-Year-Old Female.

EB = 4:4.5	Zf = 9	Zd = -3.5	DQ+ = 6
L = 0.21	W:D:Dd = 4:10:3	PSV = 1	DQv/+ = 0
HVI = NO	W:M = 4:4		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: Do.DdSo	VI: Do
II: W+.DS+	VII: D+
III: D+	VIII: Do.Dv
IV: Wo	IX: Do.Dd+
V: Wo.Wo	X: Do.D+.Ddo

quality of processing usually is very adequate. Proceed to Step 8.

Cases 9 and 11 Findings Positive

In both cases the number of $DQ+$ answers falls in the expected range, six and nine respectively. Case 9, an ambitent record, includes one DQv answer, while Case 11, an extratensive protocol, has one DQv and one $DQv/+$. This suggests that the quality of processing, for both of these women, is usually adequate.

Potential Finding 2: If the value for $DQ+$ falls in the expected range and the combined value of DQv and $DQv/+$ is greater than one for an introverted or ambitent, or more than two for an extratensive, it can be assumed that the quality of processing usually is adequate. However, at times, the processing activity falters to a less adequate or less mature level. This is common among children but not among adolescents and adults. Processing that is unsophisticated often

predisposes loose or flawed translations of inputs, and can be a precursor to difficulties in adjustment. Proceed to Step 8.

Potential Finding 3: If the value for $DQ+$ is above the expected range and the composite value of $DQv/+$ and DQv is no more than one for an introverted or ambitent, or no more than two for an extratensive, it can be assumed that the quality of processing is good, and probably rather complex. Although this finding is common among more well-educated subjects it does not necessarily equate with more efficient cognition or more effective patterns of adjustment. It simply means that processing inputs often are marked by a higher quality. Proceed to Step 8.

Case 10 Finding Positive

The 12 $DQ+$ responses are more than expected for an ambitent. There is one DQv answer. This suggests that much of his processing tends to be of

Case 11. Processing Variables for a 41-Year-Old-Female.

EB = 4:6.0	Zf = 15	Zd = -2.0	DQ+ = 9
L = 0.20	W:D:Dd = 15:2:1	PSV = 0	DQv/+ = 1
HVI = NO	W:M = 15:4		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: Wo.Wo.W+.W+	VI: W+.D+
II: W+	VII: W+
III: W+	VIII: W+.Do
IV: Wo	IX: Wv/+.Ddo
V: Wo.Wo	X: W+.Wv

Case 10. Processing Variables for a 20-Year-Old Male.

EB = 7:6.0	Zf = 14	Zd = +4.0	DQ+ = 12
L = 0.61	W:D:Dd = 4:18:7	PSV = 0	DQv/+ = 0
HVI = YES	W:M = 4:7		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: WSo.DS+	VI: D+.D+
II: D+.Do.D+.Ddo	VII: D+.Do.DSo
III: D+.Dd+.Do	VIII: W+.Dd+.Dv.Ddo
IV: W+.Ddo	IX: DdS+.Ddo.Do
V: Wo.Do	X: Do.Do.Do.Do

very good quality, and is probably complex. This is not surprising in light of his hypervigilant style and the fact that he is apparently quite intelligent. It is consistent with his above average *Zf* and his overincorporative style.

Potential Finding 4: If the value for *DQ+* is above the expected range and the composite value of *DQv/+* and *DQv* is more than one for an introversive or ambitent, or more than two for an extratensive, it can be assumed that the quality of processing is usually very good and probably rather complex. However, it also indicates that, at times, the quality of processing activity becomes very flawed and less mature forms of processing result. This is most common for persons who are in some sort of noticeable psychological disarray. A processing problem such as this creates a potential for problems in translating and conceptualizing new inputs. Proceed to Step 8.

Potential Finding 5: If the value for *DQ+* falls below the expected range and the composite value of *DQv* and *DQv/+* is no more than one for an introversive or ambitent, or no more than two for an extratensive, it suggests that the quality of processing is probably adequate, but more conservative and economical than is typical. This finding is most common among those with an avoidant style, and suggests that the style is very dominant in directing the psychological activities of the individual. Proceed to Step 8.

Potential Finding 6: If the value for *DQ+* falls below the expected range and the composite value of *DQv* and *DQv/+* is greater than one for an introversive or ambitent, or greater than two for an extratensive, it suggests that the quality of processing is often less than adequate, especially in complex situations. This kind of loose or flawed processing often leads to adjustment difficulties. Proceed to Step 8.

Step 8: DQ Sequencing

As with the sequence of location codes, the *DQ* sequence also may provide useful information when attempting to understand the adequacy or quality of the processing effort. It has been noted that *W* responses are easier to form to some blots and more difficult to create to others. A similar variation exists concerning the formation of *DQ+* answers, but it is almost the *opposite* of that indicated for *W* responses.

Generally, the more broken the stimulus field, the more amenable it is to the creation of a *DQ+* answer. *DQ+* answers are most likely to be given to Cards II, III, VII, VIII, and X and less likely to be given to Cards I, IV, V, VI, and IX. At the extremes, *DQ+* answers are given most often to Card III and least often to Card V. The data for *DQv* answers is somewhat less consistent, but a far greater proportion are given to the blots containing chromatic color features, especially Cards III, VIII, and X.

Information about which blots have been used to give *DQ+* and *DQv* answers clarifies postulates regarding processing quality. Similarly, the sequence by which these two kinds of answers appear within a blot also can be useful at times. For instance, people whose processing is routinely marked by very good quality tend to give *DQ+* responses as first answers to a blot. This does not mean that their processing is more efficient, but merely that they are accustomed to processing at a high-quality level.

On the other hand, when the *DQ+* responses occur mainly as last answers in the sequence to a blot, it indicates that the person persevered in the task until the stimulus was scanned or organized rather thoroughly. This is a commendable feature, but it also suggests that in routine situations the person may be less accustomed to striving for higher quality when processing new information. Sometimes, most or all of the *DQ+* responses involve the integration of white space. Although this may reflect good quality, it also suggests that this higher quality tends to occur mainly when some negative or hostile perspective of the environment is active.

Except for children younger than age 10, *DQv* answers usually *do not* occur as first responses. When a *DQv* is given as a first answer, and especially when more than one is given as a first answer, there are two possible explanations. One is that a kind of cognitive impulsiveness exists that prompts a decision before a well-established image is formed and reviewed. The other is that the person may have some difficulty creating and/or maintaining an image in short-term memory. People such as this often have problems sustaining their focus of attention.

In most cases, a review of the *DQ* sequence will disclose that the *DQv* answers appear as middle or last answers to a blot. Usually, this occurs when the individual is confused, dissatisfied, frustrated, or possibly even threatened by the image that has been stored and the task required concerning it. Therefore, he or she seeks to alter that image. Some people, finding themselves in this situation,

simply turn the blot and form a new image. That is a much more sophisticated way of handling the situation than giving a *DQv* response. The *DQv* sacrifices the previous processing effort, and requires some sort of diffuse restructuring of the stored image so that contours are deemphasized.

An alternative explanation for *DQv* answers that are given as middle or last answers is that this occurs because the person has difficulty maintaining an image in short-term memory. This is unusual, and typically will not be the cause unless the person has a marked cognitive or neurological deficit. If such a deficit exists, the frequency of *DQv* answers usually is substantial and the overall record will be characterized with evidence of the disarray.

Potential Findings. It is expected that the *DQ* sequence information will integrate neatly with other findings concerning processing effort, efficiency, and quality by supplementing and/or clarifying previous findings. Occasionally, the *DQ* sequence information may be contrary to other findings and, when this is true, previously developed postulates should be modified accordingly.

Case 9

All six of her *DQ+* responses are to relatively broken figures (II, III, VII, IX, and X) and only three are first responses. The single *DQv* is a second answer to Card VIII, which is somewhat unusual. However, there is nothing remarkable in the sequencing. It is an economical picture but there is nothing to challenge the notion that the quality of her processing is usually very adequate but conservative.

Case 10

His 12 *DQ+* answers occur in 8 of the 10 cards. Seven are first responses and four are second responses. This seems to be a high quality performance. However, three of the *DQ+* answers are given to *Dd* locations, and on six of the eight cards containing *DQ+* answers, the synthesis response is followed by one or two less sophisticated answers.

This suggests that while his effort is marked by good quality, some sort of preoccupation, most likely his hypervigilance, has a definite effect on the quality of his processing routine.

Case 11

Six of her 9 *DQ+* answers are first responses and seem to reflect a commendable quality. However, she appears to have had some difficulty with the last two figures. Her first answer to Card IX is a *DQv+*, followed by a *Ddo* response. Her first answer to Card X is a *W+*, followed by her last answer, a *Wv*. It seems as if her performance decayed at the end, and raises a question about whether she can maintain a quality processing effort over an extended period. This question cannot be addressed adequately until the data concerning mediation and ideation have been reviewed.

SUMMARIZING FINDINGS REGARDING PROCESSING

Processing findings should be summarized after the interpretation for purposes of storing the information. The summary usually will be rather brief. This is mainly because the findings represent only the input aspect of the perceptual-cognitive process. The relevance of the findings typically take on greater meaning when they are integrated into a broader summary that includes the conclusions developed from the two other clusters in the Cognitive Triad. Summaries for the three cases used in this chapter might be formulated as follows:

Case 9 (29-year-old multiple sclerosis patient)

She seems to be somewhat cautious, and tries to be economical when processing new information (Steps 1 and 2). This may result from a lack of confidence or may reflect a subtle refusal to become involved with new experiences. Whatever the cause, she does not work very hard to process (Steps 3 and 4). In fact, she is often inefficient and hasty in her processing effort (Step 5), and, at times, she may have difficulty shifting her attention appropriately (Step 6). These features

seem to pose a significant liability for her, especially her proneness to neglect cues in her environment that can be important to her decisions and behaviors. In spite of these negative features, there is no reason to believe that the quality of her processing effort is less than adequate (Steps 7 and 8).

Case 10 (20-year-old ministry student)

He is a person who is very guarded and somewhat mistrusting of others, and this impacts on the way in which he processes new information (prerequisite data). He works hard to organize information (Step 1) but, in doing so, he often becomes too wrapped up in details (Steps 2 and 3). As a result, he is very conservative when confronted with new information and his processing approach tends to be overly cautious (Steps 3 and 4). When scanning a new stimulus field, he tries to be very thorough and invests considerable effort in the task. This approach to processing can be an asset but, in this instance, his excessive focus on details often causes him to ignore the totality of a situation and process in a more inconsistent and sometimes fragmented way (Steps 5 and 3). Actually, the quality of his processing seems to be quite good, but that postulate should be reviewed again after information about mediation and ideation have been reviewed (Steps 7 and 8).

Case 11 (41-year-old woman suffering from alcoholism)

She seems to invest much more effort to organize new information than is common (Step 1). She is very consistent in her effort (Steps 2 and 3) but, sometimes, may be striving excessively to accomplish more than is reasonable for her functional capabilities (Step 4). The cause for this considerable effort is not clear, but it may be reasonable to suggest that she wants to avoid making mistakes. Actually, the quality of her processing effort seems very adequate (Step 7), although some of the data hint that it may be difficult for her to maintain that level of proficiency over a more sustained period of time (Step 8).

RESEARCH AND CONCEPTS RELATED TO PROCESSING VARIABLES

As previously noted, research concerning the Rorschach variables related to processing has been more limited. It is a difficult topic to investigate, often involving very tedious methodology. Nonetheless, the findings that have accumulated provide a basic framework from which interpretive principles have evolved.

The Obsessive Style Index (OBS)

The OBS evolved in 1990, during the course of testing and cross-validating the revised Schizophrenia and Depression indices. It was important to test those indices for false positive rates in psychiatric groups that included people who were neither schizophrenic nor seriously depressed. Among those selected was a group consisting of 32 outpatients, diagnosed as obsessive-compulsive personality disorder, and a second group of 114 outpatients identified as manifesting compulsive behaviors. Most of those in the latter group complained of anxiety as the main presenting symptom, but 33 of those cases also were marked by significant phobic features.

A discriminant function analysis for the 146 protocols produced considerable homogeneity among seven conditions for six variables. When those conditions were applied in various combinations, 101 of the 146 subjects (69%) were correctly identified. Two of the conditions weighed much more heavily than the other five ($FQ+$ and $X+>.89$). Thus, the calculation of the OBS includes any of four combinations of variables that yield a positive finding (Exner, 1990).

In the nonpatient samples, the OBS is positive for two of the 1,390 protocols from children, both older adolescents, and for eight of the 600 (1%) adult records. The latter include five introversive, one extratensive, and two ambitent records. The protocols of 535 outpatients includes 44 (8%) that have a positive OBS. Thirty-five of the 44 are from introversive persons, whereas only six appear in ambitent records, two in extratensive protocols,

and one in the record of an avoidant style. The OBS is not positive among any cases in schizophrenic or inpatient depressed reference samples.

The Hypervigilance Index (HVI)

The HVI evolved from attempts to validate a cluster of five variables that, at first glance, appeared to be related to paranoid characteristics (Exner, 1986). When studying the cluster in more detail, it became obvious that the term paranoid was not really appropriate. The cluster had first been identified during a study of 150 paranoid schizophrenics. In that sample more than 70% were positive for all five variables, and more than 85% were positive for at least four of the five. In contrast, only 13% of a comparison group of 150 schizophrenics, who manifest no paranoid features, had all five variables positive and only 17% were positive for four of the five. The findings seemed conceptually logical because of other findings related to each of the five variables. The absence of *T* tends to indicate more guarded and distant relations with others, an emphasis on *Hd* and *Ad* responses usually involves head, profiles, and so on, elevations in *S* correlate with negativism and anger, and elevations in *Zf* and *Zd* indicate extensive but cautious processing.

A review of the protocols of 20 outpatients, diagnosed as paranoid personality disorder revealed that all five variables were positive in 12 of the 20 cases, and at least four of the five variables were positive in 16 of the cases. This seemed to confirm the initial hypothesis that the cluster did, indeed, relate to paranoid features. However, additional findings concerning false positive cases required that the conceptual model for the cluster be reconsidered. The five variables were sometimes positive for outpatients not manifesting any obvious paranoid characteristics, and four of the five variables were positive for a substantial percentage of persons in several groups, including some nonpatients.

The false positive findings prompted another series of discriminant function analyses for the

original samples of 150 paranoid schizophrenics and 20 paranoid personality disorders, plus a group of 200 randomly drawn adult nonpatients, and a second group of 200 outpatients for whom considerable information regarding behaviors, relationships, and progress in treatment had been provided from three sources, (1) the patient, (2) the therapist, and (3) a significant other. This latter group provided an excellent source of cross-validation data.

The results of the discriminant function analyses broadened the cluster to include seven variables, but also revealed that one of the variables, $T=0$, accounted for nearly half of the variance. Consequently, an index was created in which the absence of T is prerequisite (Exner, 1989), and if T is present in the record, the entire index is considered to have a negative result. Ultimately, an eighth variable was added (Exner, 1993), and in light of various studies it seemed most appropriate to identify the index as useful in detecting the presence of a hypervigilant state. The HVI proved to be positive for 132 of the 150 (88%) paranoid schizophrenic sample and 18 of the 20 paranoid personality disorders. It is also positive among smaller segments of other groups, including about 10% of first admission inpatient depressives ($N=179$), 8% of outpatients ($N=535$), and about 1% of adult nonpatients ($N=600$).

Probably the best understanding of the HVI is derived from the nontest data available for the sample of 200 outpatients mentioned earlier, used in developing the index. Only 23 of those persons were positive on the HVI, but they form a rather discrete group. Interestingly, only 3 of the 23 individuals were described by their therapist as having paranoid-like features, or by their significant other as being irrationally suspicious of others. However, all 23 were identified by their therapists as overly cautious, subtly apprehensive, or inappropriately pessimistic about their environments. Twenty of the therapists also rated their clients as being more cynical about, or mistrusting of, others, and all 23 were described as tending to avoid creating close relations with others.

Collectively, these evaluations suggest the presence of an unusual state of anticipation, in which the person becomes psychologically prepared, even though there may be no clues or stimuli in the environment to warrant it. As a group, they were rated as being very slow to respond to treatment, and 8 of the 23 terminated prematurely. Although the general description of those positive on the HVI is derived from a relatively small sample of patients, the striking homogeneity among the reports of therapists and significant others argues for their validity. Apparently, these are people who consider themselves to be potential victims of the environment, and believe that they must be alert to avoid such victimization. Obviously, if this set or style becomes magnified or intensified as a result of pathology, more direct paranoid-like features are likely to manifest as in the instance of the groups diagnosed as paranoid personality disorder or paranoid schizophrenic.

Organizational Activity (Z_f , Z_d)

Rorschach did not include a formal coding for organizational activity, although he did offer some description of the process in his discussion of *Assoziationsbetrieb*. Beck (1933) expanded on that concept and introduced the Z score, using a scheme of weights based on the type of organization and the complexity of the stimuli involved. Hertz (1940) incorporated a different variable, g , in which all organized responses were weighted equally. Most of the concepts and research concerning organizational activity have focused on Beck's Z .

During the development of the test, a gradual misconception evolved that the clinical utility of a scoring for organizational activity related to derivations of I.Q. estimates. Unfortunately, Beck's own words, "These totals (Z Sums) vary directly as the intelligence of S " (1945), plus the fact that a considerable segment of the research on organizational activity scores has concerned the relationship to intelligence test performance, seems to have encouraged this misconception. Organizational activity scores, whether weighted using

Beck's Z , or unweighted using Hertz's g , do correlate positively with some components of intelligence testing. A variety of positive correlations have been reported for both types of scoring.

Wishner (1948) reported a .536 correlation between Wechsler-Bellevue I.Q. and the weighted Z score. Sisson and Taulbee (1955) obtained correlations of .43 and .52 between Wechsler I.Q. and weighted and unweighted Z Sums, respectively. Blatt (1953) found correlations of .49 and .46 between weighted Z Sums and the verbal and reasoning sections of the Primary Mental Abilities Test. The Wishner findings are especially important to understanding the kind of relation that seems to exist between organizational activity and intellect. He reported correlations for each of the individual subtests in the Wechsler-Bellevue, including data both for the regular Z Sum, and a modified Z Sum that eliminates Z scores for unorganized Whole answers such as the Bat response on Cards I and V. The standard Beck Z Sum correlates significantly with two verbal subtests (vocabulary .605 and information .365) and two performance subtests (picture completion .346 and digit symbol .308), with other correlations ranging as low as .102 for block design.

Wishner's modified Z Sum correlates quite differently, ranging from a high of .306 for similarities to $-.059$ for object assembly. Wishner's data suggest that the weighted method of assigning Z scores does correlate significantly with some types of intellectual operations, but not with others. Hertz (1960) reported substantially lower correlations between the Beck Z Sum and Otis I.Q. (.174) and Stanford-Binet M.A. (.113) for 12-year-olds, and low positive correlations between her g score and I.Q. and M.A. (.256 and .249). At the lower end of the intellectual spectrum, Jolles (1947), using "feeble-minded" subjects, found correlations of .08 between weighted Z Sum and Binet I.Q. and .15 with Wechsler I.Q. Kropp (1955), reviewed most of the studies on the Z score and concluded that it relates highly to W and M , but it does not relate to intelligence as operationally defined by intelligence tests.

Obviously, intelligence appears to have some relationship to organizational activity, but this relationship apparently varies with certain response styles and, in some instances, with psychopathology. Schmidt and Fonda (1953) found that Z scores are significantly higher in manics than in schizophrenics. Varvel (1941) and Hertz (1948) both report lower levels of organizational activity in depressed patients, whereas Beck (1952) and Molish (1955) found high organizational activity in patients prone to project conflicts into systematized delusional operations. Apparently, intelligence is a prerequisite for organizational activity, but other factors influence the frequency and characteristics of the activity.

Most people, adults and children, patients and nonpatients, have some type of Z in about 40 to 50% of their answers. Avoidant-style people tend to have lower Z_f because so many of their responses are pure F . When Z_f is low, it may indicate an intellectual limitation, but it is more likely to denote a reluctance to tackle the complexity of the stimulus field. A high Z_f may be the product of intellectual striving or a need to deal with the stimulus field in a more careful and precise manner. The reliability data for Z_f are substantial for both brief and lengthy retest intervals. The retest correlations for Z_f range from .81 to .89 for brief intervals, and .83 to .85 for much longer periods of time. Although Z_f provides information about the initiative of the person to approach the task with more effort than might be required, it can be misleading when taken alone because the levels of effort vary, and the quality of the organized product can be distributed along a continuum ranging from mediocre to very sophisticated.

For instance, younger clients tend to have about the same proportion of Z in their records as do adults. At the same time, younger clients usually have a smaller proportion of $DQ+$ responses than adults. Fewer responses in the records of younger clients involve the organization of adjacent or distant details, and more represent W_o or integrated S responses. This probably reflects the "devil may care" approach that frequently characterizes the

way in which the child takes on a task, but it also represents the more simplistic level of cognition that is common among children.

Given the findings concerning *Z* prior to the development of the Comprehensive System, it seemed logical to include it in the System. However, a question remained about whether it should include weights for different kinds of organized responses, as suggested by Beck, or consider all organized responses equally, as purported by Hertz. The findings of Wilson and Blake (1950) contributed to a resolution of this issue. They reported a correlation of .989 between the frequency of *Z* scores (*Zf*) and the weighted *ZSum* for 104 records. They developed a table of *ZSum* estimates (*Zest*) to illustrate the congruence between the two variables. Their sample included 81 "normals" and 23 psychiatric cases, of which 8 were psychotic. The nature of their sample suggested that it would be worthwhile to study a larger psychiatric group to determine if their finding would replicate.

Two groups of 60 protocols each were used to do so. One consisted of nonpatients, and the second was comprised of 26 schizophrenics and 34 nonschizophrenic outpatients. A correlation between *Zf* and *ZSum* of .984 was found for the nonpatient group, which is consistent with the Wilson-Blake finding. However, the correlation between *Zf* and *ZSum* for the psychiatric group was considerably lower, .708. A closer examination of the data from the psychiatric protocols revealed that, in approximately 25% of the cases, the *ZSum* differed from the Wilson-Blake table of estimates (*Zest*) by four or more points. A difference score (*Zd*) was created to reflect the disparity between *ZSum* and *Zest*, and cutoff values of +3.0 and -3.0 were established, based on standard deviations, to identify substantial discrepancies. Only 2 of the 60 nonpatient records had *Zd* scores outside of the expected range. Conversely, 19 of the 60 psychiatric protocols had *Zd* scores that fall outside of the +3.0 to -3.0 range (Exner, 1974).

Following the discovery that a *Zd* score may contribute useful information about processing behavior, several studies concerning this issue were

completed. Exner and Leura (1974) studied error rates among 47 second and third grade children. They found that 12 children with *Zd* scores of less than -3.0 made more errors in a "Simon Says" game than did the 29 children with *Zd* scores in the +3.0 to -3.0 range. They also found that the six children with *Zd* scores greater than +3.0 made significantly fewer errors in the game than did children with scores in the average range. Exner and Caraway (1974) selected 32 college freshmen whose *Zd* scores were outside of the expected range. They had taken the Rorschach as practice subjects for graduate students learning how to administer the test. The 16 with *Zd* scores greater than +3.0 were much more reluctant than those with *Zd* scores less than -3.0 to make guesses about movie titles, book titles, and proverbs, when only parts of words were displayed.

Bryant and Exner (1974) tested 36 college seniors, divided into two groups based on *Zd* scores, with the Minnesota Paper Form Board. Eighteen of the participants had *Zd* scores greater than +3.0 (overincorporators) and 18 had *Zd* scores less than -3.0 (underincorporators). Nine persons from each group took the test under a 10-minute time limit, while the other nine took the test with no time limit. They found that, under the time limit, the underincorporators completed almost twice as many problems as the overincorporators, but they also made about twice as many errors. Thus, the total number of correct scores for the two groups were not significantly different. Under the no time limit condition, the overincorporators attempted significantly more items and achieved significantly more correct solutions. Exner and Bryant (1975) studied the performance of 80 college sophomores on a serial learning task that was part of a requirement in an experimental psychology laboratory course. They found that 10 students who had *Zd* scores less than -3.0 had better recall scores after 10 training trials than did 12 students who had *Zd* scores greater than +3.0. However, when the number of training trials was doubled, the recall scores of the 12 overincorporators were significantly higher than those of the underincorporators.

Leura and Exner (1977) found *Zd* scores of less than -3.0 in the protocols of 14 of 15 children who had been diagnosed as "hyperactive" and who had abnormal EEGs. Exner (1978) reported that *Zd* scores exceeding $+3.0$ appear more frequently in the protocols of individuals who have obsessive or perfectionistic personality features, whereas *Zd* scores of less than -3.0 appear more frequently in the records of persons who manifest more impulsive-like decision operations in problem-solving behaviors. Bryant, Kline, and Exner (1978) found that a group of 13 nonpatient adults with *Zd* scores greater than $+3.0$ averaged significantly longer times to complete the Trials B test in the Halstead-Reitan than did a control group of 13 nonpatients who had *Zd* scores in the average range.

Exner, Bryant, and Armbruster (1979) studied the eye scanning patterns of 12 adolescents, between the ages of 14 and 16, in a matching familiar figures task. Four of the participants were overincorporators, four were underincorporators, and four had *Zd* scores in the average range. The task involved the exposure of six target faces, each for 750 milliseconds, followed by the exposure of a field of nine faces for an interval of 750 milliseconds. Participants were instructed to indicate which of the field faces was the same as the target face by using a light pointer. Eye activity was recorded for the 750 millisecond intervals during which the target faces were exposed. The overincorporators averaged more than twice as many scan paths (crossing a previously viewed space again) as did the underincorporators, and significantly more than those with *Zd* scores in the average range. Overincorporators and subjects with average *Zd* scores had significantly more horizontal sweeps of the target than underincorporators, and the overincorporators also showed a greater tendency to complete vertical sweeping scans than did either of the other groups. The average number of correct identifications was 4.9 for those with *Zd* scores in the average range, while the mean number correct was 4.3 for both of the other groups.

Exner (1978) reported that 63 of 279 outpatients (23%), retested at 9- to 12-month intervals,

had *Zd* scores of -3.5 or less at the beginning of treatment. In the first retest, only 17 of the 63 continued to have *Zd* scores in the underincorporator range. Four other patients, who had *Zd* scores between 0 and -3.0 in the first test, had *Zd* scores of -3.5 or less at the first retest. The second retest data reveal that 26 of the 279 had *Zd* scores of -3.5 or less, including 20 whose baseline scores were less than -3.0 . These findings suggest that underincorporation is corrected somewhat easily by most forms of intervention. Underincorporation should be considered as a high priority target for change when discovered in the record of an adolescent or adult because its presence, as a cognitive tactic, can be disruptive to other operations, especially those involving complex decision making. It probably can be altered most easily by the creation of delaying tactics, using procedures such as those described by Meichenbaum (1974).

The data concerning overincorporation are quite different. Forty-seven of the 279 patients (17%) had *Zd* scores of $+3.5$ or greater in the pretreatment test. At the first retest, 71 patients, including 42 of the original 47, had scores in the overincorporative range. The data for the second retest reveal that the frequency had increased to 89 of the 279 (32%), and included 69 who had been overincorporative in the first retest, and 44 of the 47 who had scores in that range in the baseline test. Unlike underincorporation, which appears to be altered easily, overincorporation does not appear to change as a function of intervention. This is probably because intervention, as a process, promotes a greater attentiveness and searching through new fields of information. Apparently, overincorporation can be advantageous in a variety of situations, especially those in which careful processing of information is important. However, it may become a liability when the overincorporator assumes that time available for processing is insufficient.

Exner and Stanley (1979) paid 12 adults, who had taken the Rorschach as part of the nonpatient project, to participate in a pilot study concerning

time estimation. All had completed three or four semesters of college, and were employed in clerical positions. Four had *Zd* scores greater than +3.0, four had *Zd* scores less than -3.0, and the remaining four had *Zd* scores in the range of +2.0 to -2.0. Subjects were seated, one at a time, in a totally darkened soundproof room, and asked to estimate time intervals of 2, 6, and 15 minutes by using a recording button that was on the arm of the chair in which they were seated. The four overincorporators estimated the lapse of two minutes with reasonable accuracy, ranging from 1'54" to 2'19". The other eight subjects estimated the two-minute interval at between 1'38" and 2'10". The six-minute estimates of the overincorporators tended to be longer, ranging from 6'18" to 7'21". Persons in the other two groups estimated six-minutes at intervals between 5'01" and 6'18". The groups differed most noticeably for estimates of the 15-minute interval. The estimates of the overincorporators ranged from 16'56" to 20'13". Two of the four underincorporators estimated the 15-minute interval at 12'14" and 13'02". The other two underincorporators, and the four persons in the expected *Zd* range estimated the 15-minute interval at between 13'52" and 15'29".

Although overincorporation appears frequently among people who are more obsessive or perfectionistic, it should not be misconstrued as a diagnostic indicator for that feature, or for psychopathology in general. About 17% of the adult nonpatient sample have *Zd* scores greater than +3.0 as do nearly 25% of nonpatient children between the ages of 10 and 16. Underincorporation is most common among younger children. Nearly 30% of nonpatient children between the ages of 5 and 9 have *Zd* scores of less than -3.0, as contrasted with only 7% of the adult nonpatient group.

The *W* Response

Rorschach (1921) postulated that *W* relates to intellectual operations, suggesting that it denotes

the ability to organize the components of one's environment into a meaningful concept. Beck (1932) did find a positive correlation between *W* and intellectual operations, but the literature on this issue has been somewhat contradictory. Abrams (1955) reported a correlation of nearly .40 between *W* and I.Q., but a substantially lower correlation was reported by Armitage, Greenberg, Pearl, Berger, and Daston (1955). Previously, McCandless (1949) reported no significant findings in studying the *W* answer as related to academic achievement, and Wittenborn (1950) found no relationship between *W* and several measures of mental ability. Lotsoff (1953) reported that *W* is related to verbal fluency but not necessarily to intelligence per se. Holzberg and Belmont (1952) and Wishner (1948) failed to find any significant relationship between *W* and the Similarities subtest of the Wechsler-Bellevue Scale. Mason and Exner (1984) found low but significant correlations between *W* and the Comprehension (.20), Similarities (.24), Digit Symbol (.20), and Object Assembly (.19) subtests of the WAIS, using a sample of 171 nonpatient adults, but the correlations with Verbal I.Q., Performance I.Q., and Full Scale I.Q. were all less than .10. Ames, Metraux, and Walker (1971) found that the greatest proportion of *W* answers occurs in the records of three and four year olds, with a gradual decline in the proportion through adolescence until it approximates the general adult proportion, which is between 30% and 40% of the record.

When the location frequencies, including *W* responses, are studied for *DQ*, the findings are much more consistent, and definitive relationships are found with different kinds of intellectual operations. Friedman (1952) found that nonpatient adults give significantly more *W+* answers than do schizophrenics or children. Frank (1952) has shown the same to be true when nonpatients and neurotics are compared. Blatt and Allison (1963) reported a significant positive relationship between higher *DQ* *W*'s and problem-solving ability. Ames et al. (1971) also found that the quality of *W* responses increases through

adolescence, and a similar finding is reported by Exner and Weiner (1982). In general then, although *W* can be taken as some index of motivation to deal with the entire stimulus field, its relation to more sophisticated and/or complex cognitive operations must be derived from a review of the *DQ* codes that have been included in the response.

The Dd Response

The expected proportion of *Dd* is from zero to two. When the frequency is disproportionate, it can indicate a form of perfectionism, or a tendency to flee from routine coping demands. An elevated *Dd* frequency can be caused by an excessive number of space responses. This is not uncommon among children and adolescents. Elevations in *Dd* can also be a form of avoidance through which the person tries to create a more narrow environment that is easier to manage. Klebanoff (1949) found that male paretics give significantly more *Dd* than do nonpatients. Schachter and Cotte (1948) reported a substantial elevation of *Dd* in the protocols of prostitutes taken shortly after being arrested. Kadinsky (1952) concluded that the relationship between *Dd* and external adjustment is negative, but between *Dd* and internal adjustment is positive. Rabin, Papania, and McMichael (1954), using a retest method, found that *Dd* increases significantly after the ingestion of substantial quantities of alcohol.

The DQ Coding

The interpretive value of location coding is increased substantially when differentiated in terms of quality. All *W*, *D*, or *Dd* responses are not selected or organized in the same manner. Rorschach (1921) recognized these differences and discussed them as *Erfassungstypen* (apperceptive) approaches. He noted that some people have a "keen imagination" in forming responses, whereas others use the blots or blot areas in a simple and concrete manner. All of those

involved in the development of the test have described these differences, using words such as unorganized, simple, organized, combinatory, and superior.

Meili-Dworetzki (1939, 1956) was among the first to recognize the usefulness of devising ways to differentiate levels of mental complexity and flexibility represented in location selections. She studied the different "levels" of location selection in children of various ages, designing her investigations on assumptions put forth by Rorschach (1921), Piaget (1924), and Beck (1933). She found a general enrichment in location selection and integration with increasing age levels, and suggested studying cognitive development through differences in the various types of location responses. Rapaport, Gill, and Schafer (1946) perceived the same potential and suggested an experimental approach to differentiate types of *W* responses.

Friedman (1952, 1953) developed the most elaborate method for differentiating location specification. His work is based on Werner's (1948, 1957) theory of cognitive development. The Friedman approach uses six categories for evaluating location specification, three of which are considered "developmentally high," and the remaining three considered to be "developmentally low." Early attempts to incorporate the Friedman approach into the Comprehensive System encountered three problems. Two of the categories had overlapping criteria. Two other categories are based on the questionable assumption that five of the inkblot figures are markedly different than the other five for stimulus unity. The third, and most important of the issues, was that one of the categories is directly correlated with inaccurate form use. These issues were addressed by reviewing findings concerning cognitive activity that had been differentiated in a series of problem-solving studies plus data from the Halstead-Reitan neuropsychological test battery. That review led to the selection of the four *DQ* categories currently used in the System (Exner, 1983).

REFERENCES

- Abrams, E. W. (1955). Predictions of intelligence from certain Rorschach factors. *Journal of Clinical Psychology, 11*, 81-84.
- Ames, L. B., Metraux, R. W., & Walker, R. N. (1971). *Adolescent Rorschach responses*. New York: Brunner/Mazel.
- Armitage, S. G., Greenberg, T. D., Pearl, D., Berger, D. G., & Daston, P. G. (1955). Predicting intelligence from the Rorschach. *Journal of Consulting Psychology, 19*, 321-329.
- Beck, S. J. (1932). The Rorschach test as applied to a feeble-minded group. *Archives of Psychology, 84*, 136.
- Beck, S. J. (1933). Configurational tendencies in Rorschach responses. *American Journal of Psychology, 45*, 433-443.
- Beck, S. J. (1945). *Rorschach's Test. II: A Variety of Personality Pictures*. New York: Grune & Stratton.
- Beck, S. J. (1952). *Rorschach's Test. III: Advances in Interpretation*. New York: Grune & Stratton.
- Blatt, S. J. (1953). *An investigation of the significance of the Rorschach z score*. Unpublished doctoral dissertation, University of Nebraska, Lincoln.
- Blatt, S. J., & Allison, J. (1963). Methodological considerations in Rorschach research: The W response as an expression of abstractive and integrated strivings. *Journal of Projective Techniques, 27*, 269-278.
- Bryant, E. L., & Exner, J. E. (1974). *Performance on the Revised Minnesota Paper Form Board Test by under and overincorporators under timed and non-timed conditions*. Rorschach Workshops (Study No. 188, unpublished).
- Bryant, E. L., Kline, J. R., & Exner, J. E. (1978). *Trials A and B performance as related to the Zd score*. Rorschach Workshops (Study No. 259, unpublished).
- Exner, J. E. (1974). *The Rorschach: A Comprehensive System. Volume 1*. New York: Wiley.
- Exner, J. E. (1978). *The Rorschach: A Comprehensive System. Volume 2. Current research and advanced interpretation*. New York: Wiley.
- Exner, J. E. (1983). Developmental quality scoring. *Alumni newsletter*. Bayville, NY: Rorschach Workshops.
- Exner, J. E. (1986). *The Rorschach: A Comprehensive System. Volume 1. Basic foundations* (2nd ed.). New York: Wiley.
- Exner, J. E. (1989). The hypervigilance index. *Alumni Newsletter*. Asheville, NC: Rorschach Workshops.
- Exner, J. E. (1990). The Obsessive Style Index. *Alumni newsletter*. Asheville, NC: Rorschach Workshops.
- Exner, J. E. (1993). *The Rorschach: A Comprehensive System. Volume 1: Basic foundations* (3rd ed.). New York: Wiley.
- Exner, J. E., & Bryant, E. L. (1975). *Serial learning by over and under incorporators with limited and unlimited numbers of training trials*. Rorschach Workshops (Study No. 194, unpublished).
- Exner, J. E., Bryant, E. L., & Armbruster, G. L. (1979). *Eye activity in a matching familiar figures task of 12 adolescents selected on the basis of Zd scores*. Rorschach Workshops (Study No. 263, unpublished).
- Exner, J. E., & Caraway, E. W. (1974). *Identification of incomplete stimuli by high positive Zd and high negative Zd subjects*. Rorschach Workshops (Study No. 186, unpublished).
- Exner, J. E., & Leura, A. V. (1974). *"Simon says" errors and the Zd score in young children*. Rorschach Workshops (Study No. 204, unpublished).
- Exner, J. E., & Stanley, F. B. (1979). *Time estimates for three intervals by 12 subjects selected on the basis of Zd scores*. Rorschach Workshops (Study No. 268, unpublished).
- Exner, J. E., & Weiner, I. B. (1982). *The Rorschach: A Comprehensive System. Volume 3. Assessment of children and adolescents*. New York: Wiley.
- Frank, I. H. (1952). *A genetic evaluation of perceptual structuralization in certain psychoneurotic disorders by means of the Rorschach Technique*. Unpublished doctoral dissertation, Boston University.
- Friedman, H. (1952). Perceptual regression in schizophrenia: A hypothesis suggested by use of the Rorschach test. *Journal of Genetic Psychology, 81*, 63-98.
- Friedman, H. (1953). Perceptual regression in schizophrenia: An hypothesis suggested by the use of the Rorschach test. *Journal of Projective Techniques, 17*, 171-185.
- Hertz, M. R. (1940). *Percentage charts for use in computing Rorschach scores*. Cleveland, OH: Western Reserve University, Brush Foundation and Department of Psychology.
- Hertz, M. R. (1948). Suicidal configurations in Rorschach records. *Rorschach Research Exchange, 12*, 3-58.

- Hertz, M. R. (1960). Organization activity. In M. Rickers-Ovsiankina (Ed.), *Rorschach psychology* (pp. 25-57). New York: Wiley.
- Holzberg, J. D., & Belmont, L. (1952). The relationship between factors on the Wechsler Bellevue and Rorschach having common psychological rationale. *Journal of Consulting Psychology*, 16, 23-30.
- Jolles, I. (1947). The diagnostic implications of Rorschach's Test in case studies of mental defectives. *Genetic Psychology Monographs*, 36, 89-198.
- Kadinsky, D. (1952). Significance of depth psychology of apperceptive tendencies in the Rorschach test. *Rorschachiana*, 4, 36-37.
- Klebanoff, S. G. (1949). The Rorschach test in an analysis of personality in general paresis. *Journal of Personality*, 17, 261-272.
- Kropp, R. (1955). The Rorschach "Z" score. *Journal of Projective Techniques*, 19, 443-452.
- Leura, A. V., & Exner, J. E. (1977). *Some Rorschach characteristics of a group of hyperactive children with abnormal EEG's*. Rorschach Workshops (Study No. 239, unpublished).
- Lotsoff, E. (1953). Intelligence, verbal fluency and the Rorschach test. *Journal of Consulting Psychology*, 17, 21-24.
- Mason, B., & Exner, J. E. (1984). *Correlations between WAIS subtests and nonpatient adult Rorschach data*. Rorschach Workshops (Study No. 289, unpublished).
- McCandless, B. B. (1949). The Rorschach as a predictor of academic success. *Journal of Applied Psychology*, 33, 43-50.
- Meichenbaum, D. H. (1974). *Cognitive behavior modification*. Morristown, NJ: General Learning Press.
- Meili-Dworetzki, G. (1939). Le test Rorschach et l'évolution de la perception. *Archives de Psychologie*, 27, 111-127.
- Meili-Dworetzki, G. (1956). The development of perception in the Rorschach. In B. Klopfer et al. *Developments in the Rorschach Technique. II: Fields of application*. Yonkers-on-Hudson, NY: World Books.
- Molish, H. B. (1955). *Schizophrenic reaction types in a Naval Hospital population as evaluated by the Rorschach test*. Washington, DC: Bureau of Medicine and Surgery, Navy Department.
- Piaget, J. (1924). *Le Jugement et le Raisonnement chez l'Enfant*. Neuchâtel, Switzerland: Delachaux & Niestle.
- Rabin, A., Papania, N., & McMichael, A. (1954). Some effects of alcohol on Rorschach performance. *Journal of Clinical Psychology*, 10, 252-255.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Psychological diagnostic testing* (Vol. 2). Chicago: Yearbook Publishers.
- Rorschach, H. (1921). *Psychodiagnostik*. Bern, Switzerland: Bircher.
- Schachter, W., & Cotte, S. (1948). Prostitution and the Rorschach test. *Archives of Neurology*, 67, 123-138.
- Schmidt, H., & Fonda, C. (1953). Rorschach scores in the manic states. *Journal of Projective Techniques*, 17, 151-161.
- Sisson, B., & Taulbee, E. (1955). Organizational activity of the Rorschach test. *Journal of Consulting Psychology*, 19, 29-31.
- Varvel, W. (1941). The Rorschach Test in psychotic and neurotic depressions. *Bulletin of the Meninger Clinic*, 5, 5-12.
- Werner, H. (1948). *Comparative psychology of mental development* (Rev. ed.) Chicago: Follett.
- Werner, H. (1957). The concept of development from a comparative and organismic point of view. In D. B. Harris (Ed.), *The concept of development*. Minneapolis: University of Minnesota Press.
- Wilson, G., & Blake, R. (1950). A methodological problem in Beck's organizational concept. *Journal of Consulting Psychology*, 14, 20-24.
- Wishner, J. (1948). Rorschach intellectual indicators in neurotics. *American Journal of Orthopsychiatry*, 18, 265-279.
- Wittenborn, J. R. (1950). Statistical tests of certain Rorschach assumptions. *Journal of Consulting Psychology*, 14, 1-19.

CHAPTER 18

Cognitive Mediation

This is the second cluster in the Cognitive Triad. Whereas the processing data focus on the input activities that lead to the formation of a mental image or icon, the data in this cluster relate to how that image is identified or translated. The process requires some reconciliation (mediation) between the image that has been stored and items available from the memory of the individual so as to accomplish the task of responding to the question "What might this be?"

The variables in the cluster relate to one broad issue. It is the extent to which the identifications (responses) given by the individual are commensurate with the stimulus features of the blots. It is an issue that concerns reality testing. The interpretation, however, does not simply focus on whether the response fits the area used. On the contrary, the interpretation seeks to flesh out more precise information about some of the characteristics of the mediational activity, especially the degree to which it is marked by common, uncommon, or inaccurate translations. It also focuses on the circumstances in which inaccurate translations manifest.

The accuracy of the interpretation will, to a considerable extent, depend on the interpreter's understanding of the response process as described in Chapter 11. It is especially important to understand the relation between the response process and Form Quality coding as well as the relation of those codes to the other variables in the cluster.

THE RESPONSE PROCESS AND MEDIATION

Although the instructions are brief, there is an implication that the task is to *reconcile* the selection of a response with the distal properties of the blot area chosen to use for that response. The task of reconciliation is made somewhat challenging for the person taking the test because the inkblot figures do not have the precise distal properties that people are accustomed to seeing in their world. Many of the figures, or areas of them, are similar to, but not exactly like objects in the environment. Thus, when forming a response, the individual must bend reality a bit, but the bending need not be substantial.

This is because each figure contains numerous distal features that can be used as the basis from which to judge that the figure, or an area of it, can be considered as "looking like" some known object. As noted in Chapter 11, some of the distal features are more potent than others and, as such, they tend to encourage specific identifications. This is probably best illustrated by the Form Quality Table.

THE FORM QUALITY TABLE

The Form Quality Table, used as the basis from which to determine the correct FQ coding, has been revised several times as the available data pool has expanded. The 1993 revision of the table

was constructed by using 9,500 protocols, containing 209,480 responses, which included 69,769 from nonpatient adults, 81,107 from outpatients, and 58,604 from nonschizophrenic inpatients. The table contains 5,018 items, or classes of items, that are identified as ordinary (*o*), unusual (*u*), or minus (*-*). The listing includes 1,051 items pertaining to *W* responses, 2,820 items for answers to *D* areas, and 1,147 items for responses to *Dd* areas.

The criterion used to classify a *W* or *D* response, or class of responses, as *ordinary* requires that the item must have been reported in at least 2% (190) of the 9,500 protocols, and involve contours that do exist and are reasonably consistent with the form of the item reported. *Dd* responses were classified as *ordinary* if the location area was used in at least 50 protocols and the item was reported by no fewer than two-thirds of those responding to the area. The 5,018 items in the table include 1,011 (21%) that are classified as *o*, of which 865 are for *W* or *D* responses.

The criterion used to classify an item as *unusual* requires that it was reported in fewer than 2% of the 9,500 protocols but in the unanimous opinion of at least three judges, working independently of each other, it is seen *quickly and easily* and is appropriate to the contours used. The table includes 2,176 items (43%) that are classified as *u* of which 1,611 are for *W* and *D* answers. The 1,831 items (36%) that are listed as *minus* are limited to those which occurred at least four times among the 9,500 protocols. They include 1,395 for *W* and *D* areas.

The 2% criterion used to identify ordinary responses may seem somewhat liberal but, in reality, it is not. Actually, very few of the *W* and *D* items classified as *o* appeared in only 2% of the 9,500 protocols. A few, the Popular answers, occurred in more than one-third of the records. An additional 33 *W* or *D* items or item classes appeared in between 16% and 25% of the 9,500 protocols and approximately 157 appeared in between 11% and 15% of the records. The majority of the *o* items, 603, appeared in between 6% and

10% of the protocols and only 59 items appeared in between 2% and 5% of the records.

There are more than twice as many *u* items as *o* items even though both classifications pertain to the appropriate use of contours and, of course, as any experienced examiner will be aware, the listing of *u* items falls well short of exhausting all possibilities. Nonetheless, the average $X+\%$, which represents the proportion of *o* responses, for the 9,500 protocols is .64 (.74 for nonpatients, .64 for outpatients, and .52 for inpatients). In other words, 134,067 of the 209,480 responses in the sample involve the 1,011 items or item classes listed as *o* in the Form Quality Table. Conversely, the average $Xu\%$ for the sample is only .17 (.15 for nonpatients, .17 for outpatients, and .20 for inpatients). This represents 35,616 responses that are clearly appropriate to the blot contours, but do not occur with a sufficient frequency to be listed as *o* in the Form Quality Table.

Actually, these figures are misleading because about 85% (178,582) of the 209,480 responses were given to *W* or *D* areas. As noted previously, the Form Quality Table lists only 865 items and item classes as *o* for *W* and *D* areas. An $X+\%$, calculated only for *W* and *D* responses in the 9,500 records, is .66, indicating that about two out of every three of the 178,582 *W* and *D* responses involve one or more of those 865 items. Table 18.1 shows the number of *o* items or item classes for the 10 *W* and 82 *D* location areas for the 10 cards. The 865 *W* and *D* items are not equally distributed across the 10 blots. Card V has the fewest number of *o* items while Cards VI, IX, and X have the largest numbers.

The frequencies of *o* items for some areas highlight the potency of critical distal features quite well. For instance, more than half (48 of 82) of the *D* areas have less than nine *o* items listed, and nearly one-third (25 of 82) have fewer than six *o* items listed. When the frequency of *o* items for an area is low, it indicates that the distal features of the field are reasonably potent and, as such, limit the number of translations of the field that will be consistent with the distal properties.

Table 18.1 *W and D Ordinary Items by Card and Location Area.*

Card	W	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	Total
I	44	11	14	7	12	—	—	8	—	—	—	—	—	—	—	—	96
II	11	10	12	12	10	16	4	—	—	—	—	—	—	—	—	—	75
III	3	11	21	9	—	5	—	10	3	10	—	—	—	—	—	—	72
IV	30	12	8	4	11	10	5	10	—	—	—	—	—	—	—	—	90
V	17	4	—	—	6	—	4	5	—	8	2	—	—	—	—	—	46
VI	18	13	15	18	17	12	6	—	11	—	—	—	7	—	—	—	117
VII	18	8	14	3	8	2	9	6	3	4	5	—	—	—	—	—	80
VIII	20	1*	4	6	5	8	8	3	2	—	—	—	—	—	—	—	57
IX	24	10	16	22	5	8	10	—	10	5	—	3	3	—	—	—	116
X	13	6	5	8	4	4	7	9	10	11	8	9	8	2	8	4	116

*This item represents a class of animals that includes more than a dozen species.

Responses as Decisions

As described in Chapter 11, when the person scans the blot and areas of it, he or she creates several possible answers. This is because the distal features of the figures permit or even encourage multiple translations. For instance, most people probably become quite aware that Card I could be identified as a bat, or a bird, or a butterfly shortly after first looking at the blot, yet very few people will give all three responses, or even two of the three. In fact, some people reject all three possible answers in favor of some other response such as a mask, a woman, or some other answer. This is done through the mediational process of comparing one possible answer to other possible answers and discarding some by this procedure, while discarding others because of censorship.

The response(s) that are given are the products of this decision process, and many factors can be influential to a person's decisions. Ideational sets, response styles, personal needs, positive and negative emotions, social demands, and so on can all play a role in decision making. When interpreting the mediation data, the focus typically is *not* on what caused a response (decision) to occur, but rather the extent to which the person acknowledges external reality (the more obvious distal properties of the figures) when making decisions, as opposed to being influenced by personal aspects of his or her own psychology. The differentiation of responses into the specific categories of Popular,

ordinary, unusual, and minus, represents a continuum that relates directly to this issue and forms the building blocks from which it can be addressed.

RORSCHACH VARIABLES RELATED TO MEDIATION

The mediation cluster includes the data for six variables [*XA%*, *WDA%*, *X-%*, *P*, *X+%*, *Xu%*], the frequency of minus responses containing *S*, the frequency data in the Form Quality Distribution [*+*, *o*, *u*, *-*, none] for all responses and for only *W* and *D* responses, and the sequence and features of the minus responses. When minus responses have occurred, they are also reviewed for homogeneous clustering and levels of distortion.

Presearch Issues

The interpretation of the data addresses several questions: (1) To what extent do the mediational activities yield behaviors (responses) that are appropriate (realistic) for the situation? (2) To what extent do the mediational activities yield behaviors (responses) that are inappropriate (unrealistic) for the situation? (3) Do instances of mediational dysfunction occur in any discernible pattern? (4) Is there evidence of significant mediational impairment? (5) To what extent do conventional behaviors (responses) occur in situations in which the expected or accepted behaviors are easily identified? (6) What is the overall orientation toward

making conventional translations of inputs? (7) To what extent are translations of inputs more individualistic and less conventional?

Data for Cases 9, 10, and 11, selected previously to study the processing data, are used to illustrate the interpretive guidelines that are used to address findings concerning mediation.

Case 9

This is the 29-year-old librarian who has multiple sclerosis. Her physician is concerned about her mood swings, sexual activity, and reality testing.

Case 10

This is the 20-year-old ministry student whose dean has raised questions about a psychiatric disturbance and interpersonal problems.

Case 11

This is the 41-year-old alcoholic inpatient. The referral asks for information about her assets and liabilities, questions whether she should remain as an inpatient, and raises the issue of suicide potential.

Interpretive Routine

The interpretation of the data related to mediation is not difficult, but should not be approached casually or concretely. Unfortunately, some interpreters form interpretive hypotheses from only a quick review of the number of Popular answers plus a scan of the percentages in the structural data. It is a tempting strategy that probably does yield some valid postulates but, if the data review ends there, valuable information

Case 9. Mediation Variables for a 29-Year-Old Female.

R = 17	L = 0.21	OBS = No	Minus & NoForm Features
FQx+ = 0	XA% = .76		VI 9. Do3 Mp- Art,Hd,Sx PHR
FQxo = 12	WDA% = .79		VIII 12. Dv2 CF.YF- An
FQxu = 1	X-% = .24		IX 13. Do3 FC- 2 A
FQx- = 4	S- = 0		X 17. Ddo99 FC- An
FQxnone = 0			
(W+D = 14)	P = 5		
WD+ = 0	X+% = .71		
WDo = 11	Xu% = .06		
WDu = 0			
WD- = 3			
WDnone = 0			

Case 10. Mediation Variables for a 20-Year-Old Male.

R = 29	L = 0.61	OBS = No	Minus & NoForm Features
FQx+ = 0	XA% = .90		IV 11. Ddo99 F- An
FQxo = 14	WDA% = .95		VIII 20. Dd+99 Mp.FD.FC- H,Cg 3.0 PHR
FQxu = 12	X-% = .10		X 29. Do11 F- A INC2
FQx- = 3	S- = 0		
FQxnone = 0			
(W+D = 22)	P = 4		
WD+ = 0	X+% = .48		
WDo = 13	Xu% = .41		
WDu = 8			
WD- = 1			
WDnone = 0			

Case 11. Mediation Variables for a 41-Year-Old Female.

R = 18	L = 0.20	OBS = No	Minus & NoForm Features
FQx+ = 2	XA% = .78	VIII 13. W+ FC- An,Sx 4.5 PER,INC2,MOR	
FQxo = 11	WDA% = .82	IX 16. Ddo99 FT.FC.FY- An MOR	
FQxu = 1	X-% = .17	X 17. W+1 F- An,Sx 5.5	
FQx- = 3	S- = 0		
FQxnone = 1			
(W+D = 17)	P = 9		
WD+ = 2	X+% = .72		
WDo = 11	Xu% = .06		
WDu = 1			
WD- = 2			
WDnone = 1			

regarding mediation can be neglected and the postulates about mediation will usually lack specificity. Frequency data, information from the Sequence of Scores, and a review of inappropriate responses are often highly important in fleshing out a meaningful understanding of the mediational activities of the individual as they relate to the issue of reality testing.

The interpretive strategy involves six basic steps, which can expand to eight if minus responses have occurred in the record. The first three steps concentrate on the matter of appropriate versus inappropriate responses and the extent to which mediational dysfunction, if it has occurred, reflects an impairment to reality testing. The last four steps focus on the extent to which the mediational activity has produced appropriate translations (responses) that are common or conventional versus those that are more uncommon and individualistic.

Prerequisites (*R*, *OBS*, and *Lambda*)

The interpreter should always be aware of *R*. This is particularly important when the data regarding mediation are reviewed. In part, this is because some of the mediation data are expressed as proportions of *R* and the impact of a single response on the percentage is much greater in a brief record than with a longer protocol. For example, the three minus answers in a 15-response record yields an *X-%* of .20 while three minus answers in a 24-response protocol yields an *X-%* of .13. If

addressed superficially, the .20 might prompt a more negative interpretive postulate than the .13, but such a differentiation usually is unwarranted and could be very misleading. Even if the data are not proportional, *R* sometimes causes the criterion for an interpretive hypothesis to be altered. For instance, 7 Popular answers in a 15-response record is more than expected while the same number of Populars in a 24-response protocol is in the expected range.

A second prerequisite is the *OBS*. A positive *OBS* signals the presence of a marked tendency toward perfectionism and an unusual concern for details. People such as this are very cautious in translating stimuli, as they are strongly influenced by needs to be correct or conventional. Individuals with this style are expected to mediate cautiously and precisely and usually will have higher than average values for the *XA%*, *WDA%*, and *X+%*. When the findings do not coincide with these expectations, it suggests that the obsessive feature has become counterproductive and is contributing in some way to an interference with mediation.

The third prerequisite, *Lambda*, provides some guidelines when studying the homogeneity of minus answers and for interpreting the data for the *X+%* and *Xu%* when contending with the issue of conventionality in mediational decisions.

Step 1: *XA%* and *WDA%*

Knowledge about the appropriate use of form is one of the cornerstones from which the mediation

data are interpreted. Two variables, the *XA%* and *WDA%*, provide direct information about this issue. They deal with the extent to which the mediational activities have yielded behaviors (responses) appropriate for the situation. The reason for two calculations is that neither, taken alone, provides a sufficiently encompassing picture about appropriate form use, but they usually do so when studied in tandem. One, the *XA%* includes the proportion of all responses in the record that have a "good form fit" (Sum of *FQ+*, *FQo*, *FQu*/*R*). The second, *WDA%*, restricts the calculation to only those answers that have been given for *W* and *D* location areas (Sum *W+D* of *FQ+*, *FQo*, *FQu*/Sum *W+D*).

The values for both variables are expected to be substantial and similar to each other but, typically, the *WDA%* will have the higher value. This is because the *WDA%* represents answers given to the obvious blot areas, and they contain the most

distinctive distal features. Thus, in the majority of cases the *XA%* will be lower than the *WDA%*, but there are cases in which the reverse may be true. The interpretive postulates derived will depend on the values for each of the variables plus the magnitude of the difference between the two.

Potential Finding 1: If the *XA%* is between .78 and .90 and the value for the *WDA%* is equal to or greater than the *XA%*, it indicates that mediation is usually appropriate for the situation. Stated somewhat differently, it suggests that the basic ingredient necessary for conventional reality testing is intact. Proceed to Step 2.

Cases 10 and 11 Findings Positive

In both of these cases, the *XA%* barely falls within the expected range. In Case 10, the *XA%* is at the upper end of the range (.90), while Case 11 is at the

Case 10. Mediation Variables for a 20-Year-Old Male.

R = 29	L = 0.61	OBS = No	Minus & NoForm Features
FQx+ = 0	XA% = .90	IV 11. Ddo99 F- An	
FQxo = 14	WDA% = .95	VIII 20. Dd+99 Mp.FD.FC- H,Cg 3.0 PHR	
FQxu = 12	X-% = .10	X 29. Do11 F- A INC2	
FQx- = 3	S- = 0		
FQxnone = 0			
(W+D = 22)	P = 4		
WD+ = 0	X+% = .48		
WDo = 13	Xu% = .41		
WDu = 8			
WD- = 1			
WDnone = 0			

Case 11. Mediation Variables for a 41-Year-Old Female.

R = 18	L = 0.20	OBS = No	Minus & NoForm Features
FQx+ = 2	XA% = .78	VIII 13. W+ FC- An,Sx 4.5 PER,INC2,MOR	
FQxo = 11	WDA% = .82	IX 16. Ddo99 FT.FC.FY- An MOR	
FQxu = 1	X-% = .17	X 17. W+1 F- An,Sx 5.5	
FQx- = 3	S- = 0		
FQxnone = 1			
(W+D = 17)	P = 9		
WD+ = 2	X+% = .72		
WDo = 11	Xu% = .06		
WDu = 1			
WD- = 2			
WDnone = 1			

lower end (.78). In both instances, the interpreter should make sure that the *FQ* coding has been accurate. Assuming that the coding is correct, the initial postulate concerning mediation for both cases is that it is usually appropriate for the situation.

Potential Finding 2: If the *XA%* is greater than .90 and the *WDA%* is equal to or greater than the *XA%*, it indicates that the individual makes a special effort to insure that mediation is appropriate for the situation. While this is a common finding for those who have an obsessive style, it should not automatically be equated with obsessiveness. It simply means that the mediational activities of the person are influenced by a noticeable orientation to translate situations accurately. Proceed to Step 2.

Potential Finding 3: An *XA%* of .78 or higher and a *WDA%* of less than .75 is a very rare finding and probably represents a calculational error. If there is no calculational error, the record is likely to be brief (16 or fewer answers) and will show a strange mix consisting of a substantial number of *Dd* responses, most of which are coded *FQo* or *FQu* and a larger proportion of responses to *W* and *D* areas that are coded minus or have no form. Such a protocol could reflect a processing problem but also can occur when an individual attempts to simulate serious disarray. Proceed to Step 2.

Potential Finding 4: When the *XA%* falls between .70 and .77 and the *WDA%* is .80 or higher, it suggests that the mediational translations are generally appropriate in obvious situations but tend to become less appropriate under other circumstances. This loss of mediational effectiveness (or reality testing) can be caused by numerous elements. Typically, emotional or ideational interferences cause this to occur but, at times, problems in processing can also lead to misidentifications. A review of features of the NoForm and minus responses will usually provide information about these elements. Proceed to Step 2.

Potential Finding 5: If the *XA%* is less than .70 and the *WDA%* is .80 or higher, it indicates

that mediation (reality testing) tends to falter significantly in situations where cues to appropriate translations are not obvious. The difference between the two values typically will be a function of numerous *Dd* answers that involve some misidentification. As noted in the preceding chapter, *Dd* responses do not reflect processing economy. Instead, they involve some sort of reformulation of the stored image which may occur because of defensiveness, an unusual preoccupation with minutiae, or a negativistic set. A review of the features for the minus and NoForm answers should provide some information regarding the cause of interference with effective mediation. Proceed to Step 2.

Potential Finding 6: When the *XA%* is between .70 and .77 and the *WDA%* is between .75 and .79 it indicates a moderate level of mediational dysfunction. When the *XA%* falls below .70 and the *WDA%* is between .75 and .79, it indicates a more substantial level of dysfunction. The main focus should be on the *WDA%* and the reasons that it falls below the expected range. While a substantial number of minus *Dd* and/or NoForm responses will create a lower than expected *XA%*, they usually will not impact significantly on the *WDA%*. This is because the *W* and *D* areas have the most discrete distal properties and translations based on those properties are less likely to be distorted.

Thus, if the *WDA%* falls below .80, it means that more than one in five answers to the *W* and *D* areas have distorted or ignored obvious features and this reflects a problem in reality testing. Emotional and/or ideational interferences usually cause this to occur, and a review of the features of the minus and NoForm responses given to the *W* and *D* areas should provide some insights about the mediational impairment. Proceed to Step 2.

Case 9 Finding Positive

The *XA%* of .76 and the *WDA%* of .79 suggest that a moderate level of mediational dysfunction exists. The *WDA%* is the more important of the two

Case 9. Mediation Variables for a 29-Year-Old Female.

R = 17	L = 0.21	OBS = No	Minus & NoForm Features
FQx+ = 0	XA% = .76		VI 9. Do3 Mp- Art,Hd,Sx PHR
FQxo = 12	WDA% = .79		VIII 12. Dv2 CF.YF- An
FQxu = 1	X-% = .24		IX 13. Do3 FC- 2 A
FQx- = 4	S- = 0		X 17. Ddo99 FC- An
FQxnone = 0			
(W+D = 14)	P = 5		
WD+ = 0	X+% = .71		
WDo = 11	Xu% = .06		
WDu = 0			
WD- = 3			
WDnone = 0			

because it indicates that she has ignored or distorted translations of areas that have rather obvious features. This represents some sort of reality testing problem, which is likely to be clarified when the minus answers are reviewed.

Potential Finding 7: When the *XA%* is less than .70 and the *WDA%* is less than .75, it reflects a significant mediational impairment. Two elements are important to understanding how pervasive the impairment mediation may be. The first is the value for the *WDA%*. When the *WDA%* falls between .65 and .74, the dysfunction is serious and reality testing will be noticeably affected. When the *WDA%* is below .65, the dysfunction is severe and reality testing will be markedly impaired. Both findings are common when a psychotic-like process exists, but it would be premature to reach that conclusion without first reviewing all of the remaining data concerning mediation.

The second element of concern is the difference between the *XA%* and the *WDA%*. It often provides information about the extent to which the impairment to reality testing will impact on everyday functioning. When the difference between the two values is .10 or more, it suggests that the dysfunction will be more noticeable in circumstances where cues to mediation are less obvious. When the difference between the two variables is less than .10, it can be assumed that the impairment is global, that is, the dysfunction tends to occur

regardless of how obvious distal cues may be. Proceed to Step 2.

Step 2: FQxnone

Although specific interpretive postulates about the presence of NoForm responses (*FQxnone*) are considered in the clusters related to affect and/or ideation, their presence may require some modification for the postulates derived from Step 1, especially for Findings 4, 5, 6, or 7. NoForm answers represent instances in which contour has been disregarded during mediation in favor of some internal prompting. Generally, contours are the most salient distal features of the blots, and to ignore them when forming a translation of the field is unusual and can reflect a flaw in the mediational process. Most NoForm answers entail the use of chromatic colors (Pure *C*) but some involve the achromatic or shading features (*C'*, *T*, or *Y*). Both of these types of NoForm answers are related to strong affects. In very unusual instances, a NoForm response involving human movement (*MQnone*) will appear. It represents ideational activity that, probably, is not well controlled.

The frequency of NoForm responses will be zero or one in most records, and this has little impact on the various proportional calculations concerning mediation. However, if the frequency of their occurrence is more substantial, it can have relevance to the interpretation of some of the mediation data, such as the *XA%* and especially the *WDA%*, as most NoForm answers are given to *W*

or *D* areas. If, for instance, an 18 response protocol contains 14 *W* and *D* answers of which four are NoForm, the *WDA%* could be no higher than .79, even if the remaining 10 *W* and *D* responses have form qualities of + or *o*.

Potential Finding: If the frequency for NoForm answers is two or more, the hypothesis generated in Step 1 should be amended to indicate that the effectiveness of the mediational activity is impeded at times by the interference of ideational sets (if NoForm movement answers have been given), or strong affects (if other types of NoForm answers have occurred). Proceed to Step 3 if there are minus responses, or Step 4 if there are no minus answers.

Step 3: *X-%*, *FQx-*, *FQxS-*, *Dd* with *FQ-*

Whereas the data for the *XA%* and *WDA%* indicate the extent to which appropriate responses have been given, the variables reviewed in this step and its two subsections (3a & 3b) focus on those that are inappropriate, the minus answers. Minus responses represent instances in which the features of the blot are translated in a manner that is incompatible with their distal properties. They occur in almost every record. Many minus responses occur to *Dd* and/or *S* locations and, typically, these are the lesser of two evils when compared to minus answers given to *W* or *D* areas.

Minus answers can be caused by a host of reasons. Some can be caused by faulty processing, however, in most instances the processing is adequate but emotional elements, ideational sets, and/or preoccupations prompt a misidentification of the stimulus features. Regardless of cause, the minus reflects some personal aspect of the individual that causes the stimulus field to be disregarded and replaced by internal aspects of the person that become projected into the response. Minus answers represent a disregard for, or distortion of, reality. Frequently, minus responses will have some homogeneity for location, determinants, or content that, in turn, can provide

some insights into the antecedents of the mediational dysfunction.

When minus answers occur with a substantial frequency, they usually indicate a significant cognitive dysfunction that can be related to any of a variety of serious psychologically or neurologically related problems. This step begins with a review of the proportion of minus answers in the record (*X-%*), then moves to the actual frequency of minus responses (*FQx-*), the frequency of *S* responses that are minus, and the location distributions of the minus answers. The first subsection of this step (3a) involves a search for homogeneous features in the sequencing, determinants, or contents of the minus answers whereas the second subsection (3b) attempts to estimate the general magnitude of dysfunction reflected by the minus answers.

Potential Finding 1: The *X-%* is expected to be less than .15 and the frequency of minus answers is expected to fall between one and three. When this is true, it can be concluded that events of mediational dysfunction occur no more frequently than for most people. The frequency of *S-* responses should be reviewed to determine if negativism or anger contributes significantly to these occasional events. Proceed to Step 3a.

Case 10 Finding Positive

This 29-response record contains only three minus answers, one a *D* response and the other two have *Dd* locations. None include *S*. The resulting *X-%* of .10 suggests that, ordinarily, there is no cause for concern about the effectiveness of his mediational process. However, all three minus answers will be studied in Steps 3a and 3b in an attempt to establish causal factors and study the magnitude of the dysfunction.

Potential Finding 2: When the *X-%* falls in the range of .15 to .20, some concern is warranted because there is a moderate elevation in the incidence of mediational dysfunction. *R*

Case 10. Mediation Variables for a 20-Year-Old Male.

R = 29	L = 0.61	OBS = No	Minus & NoForm Features
FQx+ = 0	XA% = .90	IV 11. Ddo99 F- An	
FQxo = 14	WDA% = .95	VIII 20. Dd+99 Mp.FD.FC- H,Cg 3.0 PHR	
FQxu = 12	X-% = .10	X 29. Do11 F- A INC2	
FQx- = 3	S- = 0		
FQxnone = 0			
(W+D = 22)	P = 4		
WD+ = 0	X+% = .48		
WDo = 13	Xu% = .41		
WDu = 8			
WD- = 1			
WDnone = 0			

and the frequency of minus answers are important to a better understanding of this problem. Three or four minus answers in an average length record will usually yield an $X\%$ in the .15 to .20 range and, often, the cause for the dysfunction becomes obvious when the responses are studied for issues of homogeneity. On the other hand, three minus answers in a shorter record is more worrisome because the dysfunction has occurred even though the individual has been conservative about taking the test. *Dd* and *S* responses are not anticipated in most brief protocols. Therefore, it is likely that the minus responses will be given to *W* or *D* areas. When this occurs in records of 14 to 16 responses and the $X\%$ falls in the .15 to .20 range, the interpreter should not be casual about the dysfunction. It may actually be more extensive than indicated by the $X\%$.

Conversely, if the frequency of $S-$ is equal to or nearly equal to the $FQx-$, the dysfunction can be linked directly to the affective characteristics of the person. Proceed to Step 3a.

Case 11 Finding Positive

This 18-response protocol has an $X\%$ of .17, which is created by the presence of three minus responses. This indicates occasional impairment to mediation. Two of her three minus answers have *W* locations, which may suggest that her mediation is more casual than should be the case, or can signify that pre-occupations tend to overwhelm or direct her mediational activities. The findings for subsections 3a and 3b will be important to sort out these issues.

Potential Finding 3: When the $X\%$ falls between .21 and .25, there may be some pervasive tendencies to mediational dysfunction.

Case 11. Mediation Variables for a 41-Year-Old Female.

R = 18	L = 0.20	OBS = No	Minus & NoForm Features
FQx+ = 2	XA% = .78	VIII 13. W+ FC- An,Sx 4.5 PER,INC2,MOR	
FQxo = 11	WDA% = .82	IX 16. Ddo99 FT.FC.FY- An MOR	
FQxu = 1	X-% = .17	X 17. W+1 F- An,Sx 5.5	
FQx- = 3	S- = 0		
FQxnone = 1			
(W+D = 17)	P = 9		
WD+ = 2	X+% = .72		
WDo = 11	Xu% = .06		
WDu = 1			
WD- = 2			
WDnone = 1			

The values for R , the frequency of minus answers, and the S - frequency are important to any understanding of this finding. For instance, if the record is between 14 and 16 responses and the three or four minus answers are to W or D areas, the dysfunction should be considered as pervasive and probably serious.

At the other extreme are average length records in which at least half of the minus answers are to Dd areas and/or involve S . In these cases, the mediational dysfunction should not be regarded as pervasive but related to more specific problems in processing or affect. If S - is equal to at least half of the minus answers, negative affect is clearly relating to the problem. Regardless of whether the dysfunction is considered to be pervasive, the extent of the impairment should not be taken lightly and the fact that mediational problems do exist should be emphasized.

Case 9 Finding Positive

This 17-response protocol has an X -% of .24. It is created by four minus answers, three of which are to D locations and none contain S . It suggests that a pervasive tendency to distort reality exists.

Potential Finding 4: If the X -% is greater than .25, and especially if it is .30 or higher, it signals the likelihood of a serious mediational impairment. More than one of every four responses is minus. It is possible that some

homogeneity will be noted among the minus answers. However, the breadth of the dysfunction tends to dramatize its pervasiveness. When this finding is positive the individual usually is a victim of some disabling problem because the basic ingredient for adequate reality testing is seriously impaired.

Potential Finding 5: In some cases, the X -% exceeds .70 and, regardless of the S - or Dd frequencies, it is very likely that the person is attempting to exaggerate or malingering symptoms. If an X -% greater than .70 is valid, the individual would have been extremely difficult to test. In fact, persons with such an extensive impairment are usually impossible to test. Typically, the recent behavioral history will readily confirm that an active psychotic-like state exists. If the history does not provide clear and consistent evidence of a psychotic-like state, the probability of malingering is substantial. Proceed to Step 3a.

Step 3a: Homogeneity Issues

Frequently, the precursors of mediational dysfunction are rather specific. The study of S and Dd frequencies in the first part of Step 3 reflects one area of concern regarding the precursors. However, minus answers can be provoked by many reasons including ideational sets, preoccupations, and emotional elements. This second part of Step 3 attempts to go beyond the basic

Case 9. Mediation Variables for a 29-Year-Old Female.

$R = 17$	$L = 0.21$	OBS = No	Minus & NoForm Features
FQx+ = 0	XA% = .76		VI 9. Do3 Mp- Art,Hd,Sx PHR
FQxo = 12	WDA% = .79		VIII 12. Dv2 CF.YF- An
FQxu = 1	X-% = .24		IX 13. Do3 FC- 2 A
FQx- = 4	S- = 0		X 17. Ddo99 FC- An
FQxnone = 0			
(W+D = 14)	P = 5		
WD+ = 0	X+% = .71		
WDo = 11	Xu% = .06		
WDu = 0			
WD- = 3			
WDnone = 0			

finding by searching for common elements that may relate to the dysfunction. The potential findings in Step 3a are not mutually exclusive. Therefore, each possibility should be considered when interpreting a protocol.

Potential Finding 1: Sometimes, *all* minus responses occur within the first two or three cards. When this occurs, it is likely that the dysfunction is a reaction to the test situation; that is, the person did not understand the nature of the task and was made anxious by it, or the person approached the test with a very negative attitude toward it. When the latter is true, the minus answers usually will include *S* locations. In either case, the dysfunction was transient.

Thus, while the *X-%* is representative of the test performance, it may overestimate the tendency toward mediational dysfunction under circumstances that are more familiar to the individual. Information regarding the nature of the testing situation, the preparation of the person for the test, and the reasons for the evaluation should provide some clarification regarding the transient dysfunction, and the history may shed some light on whether a similar dysfunction tends to occur in a more habitual pattern when the person responds to unfamiliar situations or those marked by unwanted demands.

Potential Finding 2: As previously noted, when the bulk of minus answers involve *S*, it is probable that some of the dysfunction is the product of an affective problem having to do with negativism or anger. Other kinds of emotions can also interfere with mediation. When all or most all minus answers are given to blots containing chromatic color, some sort of affective disruption of mediation is almost certain. Likewise, when affective interference, other than anger or negativism, is the main precursor to mediational dysfunction, there is usually some distinctive homogeneity among the determinants of the minus answers. Most all will contain chromatic color determinants and/or achromatic color and shading determinants.

Case 10 Finding

There is no obvious homogeneity to the minus answers in this record.

Case 9 Finding

Some homogeneity appears to exist among her minus answers. Three of the four were given to totally chromatic cards (VIII, IX, X), and all three contain color determinants. This suggests that affective problems probably are contributing somehow to her tendencies toward mediational dysfunction.

Case 11 Finding

All of her minus answers appear on the totally chromatic cards (VIII, IX, X), and two of the three have

Case 10. Mediation Variables for a 20-Year-Old Male.

R = 29	L = 0.61	OBS = No	Minus & NoForm Features
FQx+ = 0	XA% = .90	IV 11. Ddo99 F- An	
FQxo = 14	WDA% = .95	VIII 20. Dd+99 Mp.FD.FC- H,Cg 3.0 PHR	
FQxu = 12	X-% = .10	X 29. Doli F- A INC2	
FQx- = 3	S- = 0		
FQxnone = 0			
(W+D = 22)	P = 4		
WD+ = 0	X+% = .48		
WDo = 13	Xu% = .41		
WDu = 8			
WD- = 1			
WDnone = 0			

Case 9. Mediation Variables for a 29-Year-Old Female.

R = 17	L = 0.21	OBS = No	Minus & NoForm Features
FQx+ = 0	XA% = .76		VI 9. Do3 Mp- Art,Hd,Sx PHR
FQxo = 12	WDA% = .79		VIII 12. Dv2 CF.YF- An
FQxu = 1	X-% = .24		IX 13. Do3 FC- 2 A
FQx- = 4	S- = 0		X 17. Ddo99 FC- An
FQxnone = 0			
(W+D = 14)	P = 5		
WD+ = 0	X+% = .71		
WDo = 11	Xu% = .06		
WDu = 0			
WD- = 3			
WDnone = 0			

chromatic color determinants. In addition, one of the three contains a very unusual composite of shading blend and a color-shading blend (*FT.FC.FY*). Although her level of mediational dysfunction seems to be moderate, there should be concern that affect, or an affect related preoccupation, does breed some notable impairment to the manner in which she translates new information.

Potential Finding 3: Sometimes, most or all minus answers include movement determinants (*M*, *FM*, *m*). They all relate to thinking, and when a substantial proportion of minus responses contain at least one movement determinant, it suggests that some sort of strange thinking is contributing to distortions of reality. Although the characteristics of thinking are studied in detail in the third cluster of the

Cognitive Triad (ideation), it is important here to review the frequencies of *M*- responses as contrasted with *FM* and *m* answers that are minus. This is because *M*- answers reflect a directed or controlled form of thinking.

At times, one *M*- may appear in a record because of temporarily flawed logic, but when two or more appear in a protocol, and especially if they represent a substantial proportion of minus answers, it signifies that a form of disordered thinking is impacting on mediation. Conversely, *FM*- and *m*- answers represent peripheral, less volitional forms of ideational activity. When most of the minus answers are *FM* or *m* responses, it indicates that peripheral mental activities being generated by need and/or stress experiences are

Case 11. Mediation Variables for a 41-Year-Old Female.

R = 18	L = 0.20	OBS = No	Minus & NoForm Features
FQx+ = 2	XA% = .78		VIII 13. W+ FC- An,Sx 4.5 PER,INC2,MOR
FQxo = 11	WDA% = .82		IX 16. Ddo99 FT.FC.FY- An MOR
FQxu = 1	X-% = .17		X 17. W+1 F- An,Sx 5.5
FQx- = 3	S- = 0		
FQxnone = 1			
(W+D = 17)	P = 9		
WD+ = 2	X+% = .72		
WDo = 11	Xu% = .06		
WDu = 1			
WD- = 2			
WDnone = 1			

interfering with effective mediation, probably by disrupting attention and concentration and intruding into logical patterns of thought.

Potential Finding 4: Occasionally, most or all of the minus responses include reflection or form dimension determinants. When this finding is positive, the interference to mediation is related to self-image issues.

Potential Finding 5: When the frequency of minus ($FQ-$) is greater than three and all, or nearly all, of the minus responses are Pure F , the value for $Lambda$ becomes important. If L is greater than 0.99, indicating an avoidant style, the homogeneity among the minus answers suggests that the style has become ineffective and is being maintained by reality distortions. On the other hand, if $Lambda$ is less than 1.0, the homogeneity of Pure F minus responses represents a more deliberately defensive distortion of reality. Often, the minus answers will be given to Dd areas, but even if they involve W and D areas, they represent a strategy in which the person avoids contending with the apparent reality of the situation by forcing a distortion of it.

Potential Finding 6: When minus answers cluster for homogeneous contents, it suggests that a preoccupation is provoking mediational dysfunction. In most instances, the nature of the preoccupation will be reflected by the content category(s), but in some cases the preoccupation will only be clarified when the responses are read during the review of data concerning self-perception.

Case 9 Finding

It was previously noted that three of her four minus answers have chromatic color determinants. Two of the three also contain anatomy (An) content. It is not unusual for persons with a significant physical problem to give anatomy answers. However, in this instance, it seems reasonable to suggest that some impairment to mediation is being created by some emotionally related concerns that she has about her physical well-being.

Case 11 Finding

In this case, all three minus answers, previously hypothesized as having an affect relationship, include anatomy (An) content. In addition, two of the three have sex content. These are the sorts of glaring data that signal a marked preoccupation, which apparently has a substantial influence on her mediational activity, and may provoke more dysfunction than seems implied by the $X-\%$ of .17.

Potential Finding 7: When the frequency of minus answers ($FQx-$) is greater than three and all or most all minus answers are given as first responses to the blots, it can signify a lackadaisical or hasty approach in mediation. This can be created by processing problems but also may indicate a tendency toward mediational impulsiveness. This is especially true if subsequent answers within the blot are appropriate. On the other hand, if all or most all minus answers are last responses to the blots, two possibilities should be considered. The first is the more common of the two, namely, that those answers are of special significance to the subject and may be quite revealing when their characteristics or content is reviewed. A second possibility is that the subject may be prone, for any of several reasons, to exaggerate features of disturbance. This is especially likely if *all* of the minus responses are last answers. Proceed to Step 3b.

Step 3b: Minus Distortion Levels

All minus answers do not reflect the same level of disregard for reality. The vast majority of minus answers include some features that are congruent with elements of the stimulus field. The location is reasonably precise and, even though the response is coded minus, some components of it can be identified rather easily. Face responses to Cards II, III, and X, some anatomy answers to Cards II, III, or VIII, crab responses to Cards IV or V, a broken cookie or cracker to Card VII are examples of these sorts of minus answers. They

tend to reflect moderate levels of distortion. A more serious type of minus is the answer that, for the most part, has a good form fit but is coded minus because it has been spoiled by the addition of a significant component that is clearly inappropriate. For example, a Card III response of "two men (*D9*'s) beating on the head of a woman (*D7*). The identification of *D9* as a human figure is appropriate and Popular, but the *D7* area as a human head is clearly minus.

At the extreme are minus responses that represent an almost complete disregard for the stimulus field. Their location is often difficult to ascertain and even the most empathic interpreter will have considerable difficulty, or even find it impossible, to perceive the object or important components of the response. For instance, "A group of miners burrowing deeply into the center of the earth" to all of Card I, "The face of a gremlin" to the center part of Card IV, or "A group of flamingos flying overhead" to all of Card X. These types of minus responses represent a very severe form of mediational dysfunction. They reflect a marked detachment from reality that usually occurs only when some sort of psychotic-like activity is present. Thus, it is important to review each of the minus answers to determine the extent to which the responses violate the properties of the stimulus field.

This review of answers is *not to study content for projected material*, and the judgments concerning the severity of dysfunction should not be influenced by any special scores that may be included in the coding for the response. Instead, the focus is on the issue of how severe the detachment from reality may be.

Potential Finding: If severe distortions appear in any of the minus answers, the postulates derived from Steps 3 and 3a should be amended to note that, at times, there is a serious breakdown in the cognitive operations related to mediation that is not unlike that found when psychotic-like activities are present. The presence of even one minus answer that involves severe distortion suggests the probability that some behaviors will deviate very

markedly from those expected and/or appropriate in a demand situation. The presence of multiple minus answers that have severe distortions is a basis from which to conclude that mediational activity often is chaotically disrupted in ways that will inevitably breed ineffective and/or inappropriate behaviors. Proceed to Step 4.

Case 9 Finding

There are four minus answers:

Card VI (*D3*) "It ll a drawing of a man's sex organ, the penis." (Inquiry) "It just has that form to it, lik it's hard, u kno, erect, but it really doesn't ll one, it's more lik smbody was just sketching."

Card VIII (*D2*) "Th btm ll som internal organ, I dk anythg about it." (Inquiry) "It's very colorful, I dk what organ. Fr the color I'd guess smthg in the lowr prts. It has a rubbery effect, lik if u touch it it's not firm." [E: I'm not sur wht gives it tht impressn.] "Well, the way the colors vary in the shades give tht effect, mayb it's a ligament, it's actually got 2 colors, pink & orange."

Card IX (*D3*) "Th top thgs ll orange bugs." (Inquiry) "Thy hav pointd heads & pincers, I dk wht kind of bugs, just orange ones."

Card X (upper parts of *D9+D6*) "Ths ll the bttm prt of the jaw, but there's no teeth." (Inquiry) "It has tht shape, lik the pink is the upper prt & the blue is where the teeth shld b, it' lik the gums, it shld all b pink, thts the rite color."

The first and third minus answers do not involve any significant distortions. The second minus tends to minimize form demand and cannot be considered as a substantial distortion.

However, the last minus is more extreme, and does involve a substantial distortion. It suggests that, at times, her preoccupations about her physical well-being can lead her into some noticeable violations of reality.

Case 10 Finding

There are three minus responses:

Card IV (*Upper Center Middle of D1*) "In the middl sorta ll there's a littl heart." (Inquiry) "Jst

the liter prt rite there (points), it has the shape lik a heart."

Card VIII (*D4-Dd22*) "Ths ll littl lik smbody is standg behind a curtain." (Inquiry) "Ths thgs here ll boots or old fashion shoes, lik smbody is behnd ths greyish green curtain & u can't c thm except 4 their feet, the curtain wb here (outlines)."

Card X (*DdS22*) "Ths grey ll som strang insect w 2 heads." (Inquiry) "Here, cb smthg fr the wilds of Brazil or somwher in S. America where thy hav all thos weird thgs. It has a head on each side & ths long body, I've never seen athg lik it before."

In each of these minus answers, existing contours are used, but not very appropriately. However, none represents a severe distortion.

Case 11 Finding

This protocol contains three minus responses:

Card VIII (*W*) "Oh, a pelvis, yeah, u kno ths ll the vagina, the rib cage, the pelvis & lungs too." (Inquiry) "Ths is th shoulder prt (*D4*), wht do u call ths bone here, a I dkno, here r the lungs (*D5*), a pair of lungs smok filld, blue, I smok I can tell u, the ribs (*D3*) & the pelvis & the vagina, c it goes dwn tht way." [E: I'm not sur I c the vagina lik u do] "It does ll th medical book picts of a vagina ll ths, c rite here." [E: U said the lungs wer smok filled] "Yeah thyr blue, thy get lik tht fr smokg."

Card IX (*D1+D6*) "Ths ll a pair of lungs, 2 lungs, kinda infected." (Inquiry) "A pair of lungs, ths mite b the spinal cord & it's a spongy type, the color pinkish makes thm lk infected." [E: Spongy?] "Yeah, soft (squeezes hand) lik u can feel the softness, lik spongy, not hard." [E: U said the colorg maks thm lk infected?] "Yeah, lik the bld is diff colors of pink, lik infections."

Card X (*W*) "Oh thts ab, ths also a lot of thgs lik a pict of insides, ths is the neckbone (*D11*) it goes dwn, it ll body organs, lungs, sthg else too, the pelvis bone, skeleton, ths ll the neck." (Inquiry) "Th neck, the vertebrae, thn it stops, ths is the pelvis, the vagina (*D10*), it ll smthg u wld c in a Drs office on the wall, lik thes cb oversized ovaries (*D9*), look at ths, it ll the pelvis doesn't it?"

Although existing contour is used in each of these answers, they are all marked by a sort of fluid

rambling that tends to exaggerate the distortions. This is especially noticeable in the Card X response. Thus, while none are severe distortions, all three reflect the kinds of mediational problems that often breed inappropriate behaviors.

Step 4: Populars

The Popular responses involve the use of the most distinct distal properties of the blots. The frequency that they occur provides information concerning the likelihood that the person will make *obvious* customary or conventional responses in situations where the cues regarding expected or accepted behaviors are easily identified. Logically, it might be assumed that every person taking the test would take this easy route when contending with most or all of the blots, but that usually does not occur, probably because the relative distinctiveness of the critical distal features varies from blot to blot. Most people give six, seven, or eight Popular answers. Far fewer give nine, and it is quite unusual for an individual to give 10 or more, even in lengthy protocols.

Potential Finding 1: If *R* is between 17 and 28, the number of Popular answers is expected to fall between 5 and 7 for adults and adolescents and 4 to 7 for children under the age of 12. If *R* is less than 17, *P* is expected to be between 4 and 6, regardless of age. If *R* is greater than 28, *P* is expected to fall between 6 and 9, regardless of age. If *P* is in the expected range, it signifies that expected or acceptable responses are likely to occur when the cues for those responses are obvious. The probability of less conventional responses occurring in situations that are simple and/or precisely defined is minimal *even* if some problems in processing have been noted. Proceed to Step 5.

Case 9 Finding Positive

There are five Populars in this 17-response protocol. It is reasonable to suggest that expected or acceptable responses are likely when the cues for those responses are obvious. This is especially important

Case 9. Mediation Variables for a 29-Year-Old Female.

R = 17	L = 0.21	OBS = No	Minus & NoForm Features
FQx+ = 0	XA% = .76		VI 9. Do3 Mp- Art,Hd,Sx PHR
FQxo = 12	WDA% = .79		VIII 12. Dv2 CF,YF- An
FQxu = 1	X-% = .24		IX 13. Do3 FC- 2 A
FQx- = 4	S- = 0		X 17. Ddo99 FC- An
FQxnone = 0			
(W+D = 14)	P = 5		
WD+ = 0	X+% = .71		
WDo = 11	Xu% = .06		
WDu = 0			
WD- = 3			
WDnone = 0			

when considered in light of the Step 3 findings, and can be quite relevant to treatment planning.

Potential Finding 2: If the number of Popular responses is greater than expected, it may suggest an unusual concern for conventionality or correctness. The person may be overly involved with the detection of cues related to socially expected or acceptable behaviors. This is not unusual for those with an obsessive style, but even if an obsessive style is not present, it reflects a noticeable tendency toward perfectionism. This should not be regarded as a liability, but it raises a question about whether the individual is overly concerned with issues of social acceptability. This finding should be evaluated further in the context of the XA% and the X+% in Step 6. Proceed to Step 5.

Case 11 Finding Positive

There are nine Populars in this 18-response record. She seems to work hard to detect the obvious cues that will aid in determining appropriate behaviors. Evidently, she wants to do the "right thing." This is intriguing when considered in light of her minus responses and their rambling features, noted in Step 3b. Apparently, when cues for acceptable behaviors are not immediately obvious, her internal concerns easily cause her to misread the environment, and this can lead to behaviors that are less than appropriate for the situation.

Potential Finding 3: If the number of Popular answers is lower than the expected range, it is probable that less conventional, more individualistic responses will occur, even in situations that are simple and/or precisely defined.

Case 11. Mediation Variables for a 41-Year-Old Female.

R = 18	L = 0.20	OBS = No	Minus & NoForm Features
FQx+ = 2	XA% = .78		VIII 13. W+ FC- An,Sx 4.5 PER,INC2,MOR
FQxo = 11	WDA% = .82		IX 16. Ddo99 FT.FC.FY- An MOR
FQxu = 1	X-% = .17		X 17. W+1 F- An,Sx 5.5
FQx- = 3	S- = 0		
FQxnone = 1			
(W+D = 17)	P = 9		
WD+ = 2	X+% = .72		
WDo = 11	Xu% = .06		
WDu = 1			
WD- = 2			
WDnone = 1			

Case 10. Mediation Variables for a 20-Year-Old Male.

R = 29	L = 0.61	OBS = No	Minus & NoForm Features
FQx+ = 0	XA% = .90	IV 11. Ddo99 F- An	
FQxo = 14	WDA% = .95	VIII 20. Dd+99 Mp.FD.FC- H,Cg 3.0 PHR	
FQxu = 12	X-% = .10	X 29. Do11 F- A INC2	
FQx- = 3	S- = 0		
FQxnone = 0			
(W+D = 22)	P = 4		
WD+ = 0	X+% = .48		
WDo = 13	Xu% = .41		
WDu = 8			
WD- = 1			
WDnone = 0			

This is not necessarily a liability, but it does raise a question about whether the person has a persistent tendency to disregard social conventions or expectations in favor of individual needs or wants. This issue should be addressed further in Step 6. Proceed to Step 5.

Case 10 Finding Positive

There are only four Popular answers in this 29-response protocol. This is interesting because of the substantial XA% and WDA% noted in Step 1. He gives appropriate responses but, for some reason, seems to avoid the most obvious. This may reflect a tendency to subtly exert his own uniqueness, but it also may be a product of some other feature not obvious in these data. The Step 6 finding may shed some added light on this issue.

Step 5: FQ+

Many protocols given by adults or older adolescents, especially those who are reasonably intelligent or well educated, include a low frequency (1 to 3) of FQx+ answers. This coding is restricted to conventional (o) responses and they are called "overelaborated" because the individual articulates more *form* features than is common or necessary when describing the perceived object. They reflect an orientation to be precise and, when they occur with a low frequency, tend to confirm that the person taking the test is involved with the task. As might be suspected, the

presence of FQ+ answers in the records of persons with an avoidant style is a very unusual finding.

Potential Finding 1: When the FQ+ value is zero no firm conclusions can be drawn, but if the person taking the test is well educated or if the examiner has reason to believe that the subject is intellectually above average, the form quality codings should be reviewed again because the absence of FQ+ responses can signal a more lackadaisical, defensive, or even impaired mediational approach. Proceed to Step 6.

Cases 9 and 10 Findings Positive

Both of these records have a zero value for FQ+. This is a bit surprising for Case 9 who is a college graduate. The absence of FQ+ responses in her record may represent a more conservative or defensive approach to the test. The absence of FQ+ answers in the Case 10 protocol is more surprising because he gave a longer than expected record, gave a substantial number of appropriate responses, and is apparently quite intelligent. The processing data included the finding that he is hypervigilant, and this may have led to a tendency to avoid being overly elaborate in his descriptions.

Potential Finding 2: If the value for FQx+ is between one and three, it suggests that the individual is oriented to be somewhat precise in mediating stimulus inputs and probably has

been well motivated in taking the test. Proceed to Step 6.

Case 11 Finding Positive

She gave two *FQ+* responses, suggesting that she tries to be precise, and apparently was motivated to do well on the test.

Potential Finding 3: If the value for *FQx+* is greater than three, it signifies a marked orientation toward being precise or correct. This should not be regarded as a liability but does indicate that the person may be excessively cautious in decision making. When this finding is positive for a person with an obsessive style, it reflects a more perfectionistic orientation in mediation. Proceed to Step 6.

Step 6: *X+*% and *Xu*%

This step reviews the array of appropriate responses in the context of conventional versus more idiographic mediation decisions. The *X+*% represents the proportion of *o* responses in the protocol. They entail the use of distal properties in the field that are reasonably potent and not only attract attention but also limit the range of translations that are congruent with the area. When an ordinary response is selected from the array of possibilities that exist within the field, it indicates that the person's mediational decisions tend to be common or conventional.

The *Xu*% represents the proportion of *u* responses in the protocol. They have a special importance because none occurs very frequently even though all are congruent with the properties of the blots. Almost every protocol will contain unusual responses, and the interpretation of them can be challenging. It is clear that they are less conventional and more idiographic. Many probably contain some projected elements, but that is not an issue when studying mediation. The issue is whether the proportion of these answers that appear in a record represent a tendency to disregard convention.

Some *u* answers are variations of an *o* response that are verbalized in an uncommon way. Sometimes, they are simply more cautious or defensive. For instance, when the *D3* area of Card II is identified as a "butterfly" the response is coded *o*, but when the same area is identified as an "insect with wings" the response is coded *u*. It could be argued that because a butterfly is a winged insect, some extrapolation should occur and both should be coded *o*. To do so, however, would ignore the fact that the "insect" translation is atypical. This may seem inconsistent, but it is not. It is important to remember that the definition of an *o* answer is that it occurred in at least 190 of the 9,500 records used to construct the table. Actually, the "butterfly" response appeared in 963 protocols while the "winged insect" response occurred in only 37 records. It is not an inappropriate response; it is simply a manner of translating the distal properties in a more generalized and more cautious or defensive manner than is common.

Most *u* responses are not simply generalized cautious or defensive variations of *o* responses. On the contrary, many tend to be more original or creative. For instance, the *u* response of "scarecrow," to the whole of Card IV (with *D1* as a post) is probably seen as easily as the Popular human or human-like figure response, and more easily than other *o* answers to the *W* area such as "boots on a pole," a "badge," or a "topographic map," yet it appears in only 43 of the 9,500 records. Unquestionably, it is a more creative response. It probably has special meaning in the context of self-image, but that is not a matter of concern here. What is important is that the image has been translated in an appropriate but unusual manner.

Usually, well over half, and often more than three-fourths of the responses in a record will be coded *o*, but the presence of some *u* answers is also expected, especially as *R* increases above 17 answers. The proportion of *u* responses varies considerably but is always expected to be greater than the proportion of minus answers. It is not uncommon for the *Xu*% to range between .15 and .25, however, when the proportion exceeds .25,

questions must be raised about tendencies to be overly individualistic and/or orientations to deliberately disregard conventional or socially expected behaviors.

Potential Finding 1: If the $X+\%$ falls between .70 and .85 and $Xu\%$ is between .10 and .20, it indicates that the person has a substantial proclivity to formulate behaviors that are in accord with social demands or expectations. If the $Xu\%$ is less than .10, it indicates that some sort of mediational dysfunction occasionally interferes with this orientation.

Cases 9 and 11 Findings Positive

In Case 9, the $X+\%$ is .71, but the $Xu\%$ is .06. Likewise, the Case 11 $X+\%$ is .72 and the $Xu\%$ is .06. The values for the $X+\%$ suggest that both of these women tend to formulate behaviors that are commensurate with social demands or expectations.

However, the relatively low values for the $Xu\%$ seem to indicate that some sort of mediational dysfunction tends to interfere with this orientation from time to time. It is reflected in Case 9 by the four minus answers and the substantial $X-\%$. It is indicated in the Case 11 record by the three minus answers plus the one NoForm answer. In both cases, the respectable $X+\%$ should probably be viewed as a potential asset if treatment is considered.

Potential Finding 2: When the $X+\%$ is greater than .85, regardless of the value for the $Xu\%$, it indicates an unusual commitment to conventionality. While this is not necessarily a liability, it may signal an excessive preoccupation with social acceptability that can lead to a sacrifice of individuality. Elevations in the $X+\%$ may also reflect an important tendency toward obsessiveness and/or perfectionism.

Case 9. Mediation Variables for a 29-Year-Old Female.

R = 17	L = 0.21	OBS = No	Minus & NoForm Features
FQx+ = 0	XA% = .76		VI 9. Do3 Mp- Art,Hd,Sx PHR
FQxo = 12	WDA% = .79		VIII 12. Dv2 CF.YF- An
FQxu = 1	X-% = .24		IX 13. Do3 FC- 2 A
FQx- = 4	S- = 0		X 17. Ddo99 FC- An
FQxnone = 0			
(W+D = 14)	P = 5		
WD+ = 0	X+% = .71		
WDo = 11	Xu% = .06		
WDu = 0			
WD- = 3			
WDnone = 0			

Case 11. Mediation Variables for a 41-Year-Old Female.

R = 18	L = 0.20	OBS = No	Minus & NoForm Features
FQx+ = 2	XA% = .78	VIII 13. W+ FC- An,Sx 4.5 PER,INC2,MOR	
FQxo = 11	WDA% = .82	IX 16. Ddo99 FT.FC.FY- An MOR	
FQxu = 1	X-% = .17	X 17. W+1 P- An,Sx 5.5	
FQx- = 3	S- = 0		
FQxnone = 1			
(W+D = 17)	P = 9		
WD+ = 2	X+% = .72		
WDo = 11	Xu% = .06		
WDu = 1			
WD- = 2			
WDnone = 1			

Potential Finding 3: When the $X+\%$ is between .55 and .69 and the $Xu\%$ is .20 or greater, it can be concluded that the person tends to make more mediation decisions that disregard social demands or expectations than do most people. Sometimes, this is the product of a conflict with the environment and/or a system of values that varies considerably from those usually endorsed by the environment.

Whatever the cause, this finding indicates a likelihood that there will be more frequent patterns of less conventional behaviors, but it does not necessarily mean that those behaviors will be unacceptable or antisocial. It simply reflects a stronger emphasis on individualism than is typical for most people. When this finding is positive for persons who have an avoidant style ($L > 0.99$), it may represent social alienation or social defensiveness; that is, the individual tends to avoid convention as a way of maintaining distance from an environment that is perceived as threatening, demanding, and ungiving.

Potential Finding 4: When the $X+\%$ is less than .55, the $X-\%$ becomes an important benchmark for the interpretation. If the $X-\%$ is greater than .20, there is a substantial likelihood of more atypical or even inappropriate behaviors than might be expected. The proneness toward unconventional behaviors is most likely to be induced by forms of mediational dysfunction and problems in reality testing. The interpretation should stress this and

avoid mention of any distinctive orientation toward individuality.

On the other hand, when the $X-\%$ is .20 or less, the $Xu\%$ presumably will be at least .25 and often above .30. When the $X-\%$ is less than .15, the $Xu\%$ probably will be .30 or greater. Either of these composites strongly suggests that many mediational decisions will be unconventional. They do not reflect a reality-testing problem because they are appropriate, albeit unusual, for the situation. Instead, they indicate that the person is not very influenced by social demands or expectations. This is not necessarily a liability, however, it is very likely that many behaviors will be formulated that disregard or avoid issues of social convention. The extent to which these patterns of unconventional behavior are effective will depend largely on how creative they may be and the flexibility of the environment in which they occur concerning issues of individuality.

Case 10 Finding Positive

The $X+\%$ of .48 and an $Xu\%$ of .41 are very unexpected findings. Each, in its own way, reflects a marked tendency to disregard social demands or expectations. These findings are also consistent with the lower than expected frequency of Popular answers, noted in Step 4. They do not necessarily mean that his behaviors will be asocial or unacceptable, but they do strongly suggest that his behaviors will not be very conventional. This seems to coincide with his history of interpersonal aloofness and disdain, and tends to support the notion that it

Case 10. Mediation Variables for a 20-Year-Old Male.

R = 29	L = 0.61	OBS = No	Minus & NoForm Features
FQx+ = 0	XA% = .90	IV 11. Ddo99 F- An	
FQxo = 14	WDA% = .95	VIII 20. Dd+99 Mp.FD.FC- H,Cg 3.0 PHR	
FQxu = 12	X-% = .10	X 29. Do11 F- A INC2	
FQx- = 3	S- = 0		
FQxnone = 0			
(W+D = 22)	P = 4		
WD+ = 0	X+% = .48		
WDo = 13	Xu% = .41		
WDu = 8			
WD- = 1			
WDnone = 0			

represents a system of values that varies from those usually endorsed by the environment. The findings regarding his ideation will be very important to understanding if this is a pathological problem.

SUMMARIZING FINDINGS ABOUT MEDIATION

The findings about mediation should be summarized to store the information so that it can be integrated easily with the material gleaned from the other two clusters in the Cognitive Triad. Summaries regarding the three cases used in this chapter might be formulated as follows:

Case 9 (29-year-old multiple sclerosis patient)

She appears to experience a moderate level of mediational dysfunction at times (Step 1). In fact, some evidence suggests a pervasive tendency to selectively distort reality (Step 3). She seems prompted to do so because of emotional factors that tie together with concerns for her physical well-being (Step 3a) and, on occasion, this can lead her into serious distortions of reality (Step 3b). She seems oriented toward being conventional, and making acceptable responses or behaviors (Steps 5 and 6), but preoccupations about her health or well-being often circumvent that orientation and cause her to perceive the world through a more personal, and not very realistic, set of psychological lens.

Case 10 (20-year-old ministry student)

His mediation seems to be quite appropriate in most circumstances (Step 1), and there is no evidence to suggest that he distorts inputs more often than most people (Step 3). However, he does not translate obvious cues as conventionally as do most people (Step 4). Rather, he seems to have a marked tendency to disregard social demands or expectations (Step 6). This does not necessarily mean that his behaviors will be asocial or unacceptable, but it does indicate that his behaviors will not be very conventional. This seems to coincide with his history of interpersonal aloofness

and his apparent disdain for others, and suggests that his system of values may vary considerably from those usually endorsed by the environment. The findings regarding his ideation will be very important to understanding if this is a pathological problem.

Case 11 (41-year-old woman suffering from alcoholism)

Her translations of reality seem to be appropriate most of the time (Step 1). In fact, she is very alert to obvious cues, apparently to make sure that her responses (behaviors) are in accord with social demands or expectations (Step 4). However, she does experience occasional mediation impairments (Step 3) that appear to be provoked by her emotions (Step 3a). These disruptive feelings seem to be related to body concerns and may also involve some sort of sexual preoccupation (Step 3a). This is not necessarily unusual for someone with a lengthy history of alcohol abuse, especially if some neurological problems have developed but, occasionally, these preoccupations cause her to lose focus and cause her to become noticeably detached from reality.

RESEARCH AND CONCEPTS CONCERNING MEDIATION VARIABLES

Form Quality

Rorschach (1921) noted that a substantial portion of responses are Pure *F*, and that almost all of the remaining responses will be marked by some inclusion of form features. His notions about form use constituted one of the cornerstone hypotheses on which his investigation was based. He postulated that the manner and quality by which form is applied in creating the response represents the person's ability to perceive things conventionally, or realistically. Consistent with that hypothesis, he differentiated the form quality of answers as + (good), which he often referred to as "clearly visualized," or - (poor).

There is no doubt that form is a basic ingredient in almost all Rorschach answers. Baughman

(1959), in his classic work on the stimulus features of the blots, clearly demonstrated the dominant role that form plays in the formulation of most answers. His work, and that of Exner (1959), can be viewed as offering evidence for the important role of this determinant. In both works, the color and shading properties of the blots were altered, sometimes causing major variations in the frequencies for the use of different determinants and/or response contents. In both studies, however, the proportion of responses that include form remained relatively stable. Mason, Cohen, and Exner (1985) reported a series of factor analyses of Rorschach data for groups of nonpatients, schizophrenics, and depressives. Although the overall factor structures were different for each group, form was consistently a dominant element in the first factor for each.

Generally, the inclusion of form in a response has been considered as an "ego" operation. Rapaport et al. (1946), for example, drawing from the concepts of ego psychology, argued that the use of form denotes a process of formal reasoning in which the mediation of the stimulus calls attention to the contours. Implicit in the operation is the direction of attention, forms of control, and making discriminating judgments with regard to the standards of the environment. Korchin (1960) has discussed this process in the conceptual framework of perceptual organizing activity.

RORSCHACH'S $F+\%$

Rorschach created the $F+\%$ to reflect the percentage of clearly visualized (good form) Pure F responses in the record. He presented data demonstrating that patients from more seriously disturbed groups (schizophrenia, manic-depressive, organic, etc.) tended to have lower ranges for the $F+\%$ than did his normal subjects. He argued that when that percentage is low, it equates with limited perceptual accuracy, and possibly poor reality testing. The bulk of research concerning form quality that was published during the first 50 years after Rorschach's death focused

on the $F+\%$, and gained considerable support for his contentions about it.

However, Rorschach's premature death left the door open for dispute about how best to define good and poor responses, and it became a major point of contention among those most closely involved with the development of the test. Each of the systematizers agreed that form quality is one of the most important elements of the test. They also generally agreed with Rorschach that it should be differentiated into two categories, good and poor, but beyond those points they differed on how best to evaluate the "goodness of fit" concerning form use. Beck and Hertz followed Rorschach's suggestions most closely, using + and - symbols to denote good and poor, and basing decisions mainly on frequency data. Each developed elaborate tables of good and poor form responses (Hertz, 1936, 1942, 1952, 1961, 1970; Beck, 1937, 1944; Beck et al. 1961), which were revised as data pools expanded.¹

Piotrowski (1957) and Rapaport et al. (1946) endorsed the concept of using frequency data to determine the adequacy of form fit, but neither developed frequency distributions for use. In Klopfer's early work, he also used the + and - symbols, but he generally opposed the use of frequencies as determining criteria. He argued in favor of a subjective evaluation by the examiner in determining the goodness of form fit (Klopfer, 1937). Ultimately, he discarded the plus-minus symbols in favor of a Form Level Rating (Klopfer & Davidson, 1944). Nonetheless, most clinicians using the test, even those following the Klopfer method, tended to use either the Beck or Hertz Form Quality Tables in making decisions about the appropriateness of form use (Exner & Exner, 1972). This relatively

¹ Kinder, Brubaker, Ingram, and Reading (1982) have traced the development of Beck's decisions concerning the assignment of + and - in his tables. They suggest that many of his decisions were more subjectively based than implied in Beck's description of his work. The Beck and Hertz tables differ in that they do not always use the same location numbering format, but Hertz (1970) has reported a relatively high agreement between her table and that of Beck.

uniform approach led to considerable research concerning the $F+\%$.

Much of the early Rorschach research about the $F+\%$ concerned its relation to intellect. Beck (1930, 1932) reported relatively high correlations between the low $F+\%$ and limited intellectual endowment. Similar findings were reported later by Klopfer and Kelley (1942) and Sloan (1947). However, studies concerning the relationship between the $F+\%$ and nonretarded subjects yielded contradictory findings. Several (Paulsen, 1941; Holzberg & Belmont, 1952; Abrams, 1955; Armitage et al., 1955) reported significant correlations between the $F+\%$ and I.Q. or M.A., but others (Wishner, 1948; Gibby, 1951; Taulbee, 1955) reported that no single Rorschach variable, or grouping of variables, shows consistently significant correlations with intelligence. Those findings are consistent with the report of Mason and Exner (1984). Ames et al. (1971) found that the $F+\%$ is generally low for very young children, but that it typically exceeds .80 by the sixth year.

Molish (1959) reviewed studies concerning brain injured persons and found that substantial variations exist for form quality. He interpreted this to represent differences in the type of damage experienced and the consequent impairment to adaptive functioning. The data concerning the $F+\%$ among geriatric subjects are also somewhat mixed. Klopfer (1946), Davidson and Kruglov (1952), Ames et al. (1954), and Caldwell (1954) all noted a decline in the mean $F+\%$ in older subjects, but Prados and Fried (1943) and Chesrow et al. (1949) reported that older subjects maintain a relatively high $F+\%$.

Molish (1967) reviewed considerable literature regarding the $F+\%$ and suggested that it tends to vary with both intellect and the affective state of the individual. Leavitt and Garron (1982) studied two groups of patients with low back pain, one having demonstrable organic disease of the back and the second having similar symptoms but no evidence of organic problems. They found the Rorschachs of the second group to have significantly lower $F+\%$'s.

The most striking data concerning the $F+\%$ have been generated from the studies of more severely disturbed psychiatric patients, and especially schizophrenics. Weiner (1966) pointed out: "Virtually all studies of $F+\%$ in schizophrenia and control groups have replicated the findings presented by Beck and Rickers-Ovsiankina in their historically significant 1938 contributions." In each of those studies, schizophrenics showed a mean $F+\%$ in the .60's, whereas controls yielded significantly higher means, 87.3 for the Rickers group, and 83.9 for the Beck group. Beck (1945) postulated that when the quality of the form use is good, the subject demonstrates a respect for reality, whereas the frequent use of poor form indicates a disregard for this element. Findings similar to those of Beck and Rickers-Ovsiankina have been reported by Friedman (1952), Berkowitz and Levine (1953), Knopf (1956), and Molish and Beck (1958). Sherman (1952) divided a group of 71 nonpatients and 66 schizophrenics into high and low responder groups. He found that the $F+\%$ differentiated the nonpatients from the schizophrenics regardless of record length. These accumulated findings led Beck to suggest that whenever the $F+\%$ equals .60 or lower, it is indicative of serious psychopathology, or representative of marked intellectual limitations or brain dysfunction.

Goldberger (1961) used an isolation design and found that subjects with higher $F+\%$'s were more capable of handling the "primary process intrusions of sensory deprivation." Baker and Harris (1949) came to similar conclusions from a design using "speed quality" under stress. Several authors report a significant increase in the $F+\%$ as the result of therapeutic change (Piotrowski, 1939; Kisker, 1942; Beck, 1948), although Zamansky and Goldman (1960) using a well-designed study of 96 hospitalized patients and found no significant increase in $F+\%$ following intervention, even though global analyses of the pre- and posttreatment records were significantly differentiating. Exner and Murillo (1973) reported that the $F+\%$'s of 53 schizophrenics increased approximately 10 percentage points at

discharge from hospitalization as compared to their admission records.

Extended Form Quality ($F+\%$)

Rapaport et al. (1946) argued that frequency based methods for differentiating plus and minus answers are limited by the fact that not all plus responses are of equal quality, nor are all answers that have a poor form fit. He suggested that form quality might be differentiated into six categories (plus, ordinary, vague, minus, special plus, and special minus). He postulated that such a differentiation would provide a clearer understanding of the reality testing of the person. Rapaport et al. also suggested the calculation of an Extended $F+\%$, to include all responses in which form is primary, such as F , FC , FY , FT , an approach elaborated by Schafer (1954). Feldman et al. (1954) reported a correlation of approximately .80 between the $F+\%$ and the Extended $F+\%$, although Cass and McReynolds (1951) had previously reported that the Extended $F+\%$ is generally higher than the $F+\%$ for nonpatient adults. Weiner (1966) pointed out, the $F+\%$ often represents only a small proportion of the total responses and, as such, may offer only a glimpse of how appropriately form has been used. Weiner suggested that the Extended $F+\%$ might be a more reliable measure of perceptual accuracy because it represents a larger number of answers in most protocols.

Exner (1974) reported correlations of .78 between the $F+\%$ and the Extended $F+\%$ among nonpatients, .73 among schizophrenics, and .62 among inpatient nonschizophrenics. He noted that nearly 35% of all minus codings occur to responses in which form is not the dominant characteristic, such as CF , YF , and so on.

A Multivariable Approach to Form Quality Evaluation

The Exner (1974) findings about the $F+\%$ and the Extended $F+\%$ led to the decision to create variables for the Comprehensive System that would focus on the form quality for all responses in the

record. The original model that was used as the basis to formulate those variables was developed by Mayman (1966, 1970), following from the Rapaport et al. (1946) suggestions. The Mayman approach included six categories for the form quality coding of responses:

$F+$: Representing a successful combination of imagination and reality congruence.

Fo : Obvious, easily noticed answers requiring little or no creative effort.

FW : Answers marked by a significant shift away from reality adherence, to be scored as $FW+$ when general contours do not clash with the answers, and $FW-$ when some of the blot area used makes the form fit incongruous.

Fv : Answers in which the content avoids the necessity of specific shape.

Fs : The adequate use of form is spoiled by oversight or distortion.

$F-$: Arbitrary percepts where there is substantial disregard for the structural properties of the areas used.

Mayman demonstrated that this approach yields a substantially greater diagnostic usefulness than the simple plus-minus differentiation. Unfortunately, it also has some intercoder reliability problems. There is often disagreement about whether an answer is $FW+$ or $FW-$, or whether answers are Fs or $F-$. In addition, there is disagreement about coding Fv because all Form Quality tables list some items in this category as plus, while other items in the category are listed as minus. Nonetheless, Mayman's conceptualization of a multivariable approach to form quality evaluation has obvious advantages.

When the basic ingredients of the Comprehensive System were first selected, a four-variable modification of the Mayman scheme was included (plus, ordinary, weak, minus) that collapsed Mayman's $FW-$, Fs , and $F-$ into a single minus category, and discarded the Fv (Exner, 1974). As additional studies on this format ensued, it became obvious that the designation "weak" was

misleading, and the term "unusual" was substituted to reflect the fact that answers in this category are low frequency responses that have appropriate form use (Exner, 1986a).

Form Quality Proportions

Three variables ($X+\%$, $Xu\%$, $X-\%$) were created to reflect the proportions of answers in each of the categories. Studies concerning the $X+\%$ and $X-\%$ illustrate that they discriminate quite well between nonpatients and more seriously disturbed psychiatric groups (Exner, 1974, 1978, 1986a, 1993). They also tend to differentiate schizophrenics from schizotypal and borderline personality disorders (Exner, 1986b). The mean $X+\%$ for nonpatients, both children and adults, hovers between .70 and .80. Standard deviations are typically around .10, while standard deviations for various patient groups tend to be somewhat higher, indicating a greater dispersion of the scores. The $X+\%$ means for patient groups usually are lower than for nonpatients. It is .64 ($Sd=.14$) for a heterogeneous group of 535 outpatients, .53 ($Sd=.12$) for 279 inpatients diagnosed as having a serious affective disturbance, and .40 ($Sd=.15$) for 200 inpatient schizophrenics (Exner, 2001).

Retest reliabilities for the $X+\%$ are consistently high, over both brief and lengthy intervals, usually ranging from the low .80's to low .90's, and it is the only variable that showed a consistently high retest reliability among a group of 55 nonpatient children studied longitudinally from age 8 through age 16 (Exner, Thomas, & Mason, 1985). It has proven to be an important variable in the Suicide Constellation (Exner & Wylie, 1977; Exner, Martin, & Mason, 1984), and a useful variable in the identification of schizophrenia (Exner, 1978, 1983, 1986b, 1991; Exner & Weiner, 1982, 1995). Interpretively, it provides data related to the use of the form features of the blots in a conventional, reality-oriented manner. When the $X+\%$ is lower than expected, it signifies that the person tends to translate stimulus fields in more atypical ways.

At the other extreme, mediational distortion is reflected by the $X-\%$, which represents the pro-

portion of uncommon responses that disregard the appropriate use of the blot contours. The objects specified are, at best, difficult to see and, in many instances, impossible to find. In effect, they are violations of reality. The $X-\%$ also has reasonably substantial long-term and short-term retest reliability, yielding coefficients ranging from .80 to .90. Minus responses are not uncommon, but usually occur in low frequencies. For example, about 86% of 600 nonpatients gave at least one minus answer, and the mean $X-\%$ for the group is .07 ($Sd=.05$). The mean for outpatients is .16 ($Sd=.10$), for inpatient affective disorders is .19 ($Sd=.10$), and for inpatient schizophrenics is .36 ($Sd=.13$).

Some minus responses probably occur because of mediational negligence, but most seem to be products of preoccupations, affective interference, or more diffuse cognitive impairments. For instance, Exner (1989) found that 35% of the minus answers given by 68 males with serious physical problems were either anatomy or x-ray answers, while more than one-third of minus answers given by paranoid schizophrenics were marked by *Hd*, *Ad*, or parenthesized human or animal contents. A substantial proportion of minus answers given by persons who have significant affective problems include achromatic or chromatic color or shading determinants (Exner, 1993). An example of this has been noted by Bouvier (1995) who reported that heroin addicts show poorer form quality on chromatic cards than the achromatic cards.

On the other hand, persons with more diffuse cognitive impairment will often give numerous minus answers that have little homogeneity. For instance, Epstein (1998) has reported that persons with mild or moderate to severe traumatic brain injury have noticeably low $X+\%$'s and high $X-\%$'s. Pinto (1999) found that the Rorschachs of 50 adolescents with substantial histories of disruptive behavior contained significantly higher frequencies of minus and unusual responses, and Bartell and Solanto (1995) have noted higher than expected $X-\%$'s among children diagnosed with ADHD. Lipgar and Wachler (1991) have

reported that mothers of behaviorally disturbed infants give significantly fewer form appropriate responses than nonpatients. Bannatyne, Gacono, and Greene (1999) studied patterns of responding on the Rorschach and MMPI-2 for three groups of chronic psychotic forensic patients (undifferentiated schizophrenia, schizoaffective, and paranoid schizophrenia). They note $X+\%$'s of less than .50 in more than half the records in each group, and $X-\%$'s greater than .20 in two-thirds or more of the protocols in each group.

The relationship between the $X+\%$ and the $X-\%$ is not as direct as might seem at first glance. In many cases, a low $X+\%$ is the product of a higher $Xu\%$, which represents low frequency answers that do not violate the appropriate use of the blot contours. They simply reflect a less common way of translating the stimulus field that still abides by the demands of reality. They seem to typify instances in which the person exerts some of the features of his or her individuality. Some unusual responses are expected in every record. The mean Xu , among nonpatients is .15 ($Sd=.07$) as contrasted with means of .18 ($Sd=.09$) for a heterogeneous group of outpatients, .19 ($Sd=.10$) for inpatient affective disorders, and .21 ($Sd=.10$) for inpatient schizophrenics (Exner, 2001).

When unusual responses occur in low frequencies, they are probably a healthy sign. While the difference between low $X+\%$'s based on minus responses, versus those created by unusual responses, have been shown to discriminate "process and reactive" schizophrenics (Zukowsky, 1961), improvement among schizophrenics (Saretsky, 1963), and legally sane from legally insane murderers (Kahn, 1967), substantial $Xu\%$'s may occur for many reasons.

Typically, substantial frequencies of unusual responses signal less commitment to convention. People who do this often have an excessive commitment to the self, and/or are unwilling to adhere to the standards of conventionality. If the environment makes few demands on this sort of person for conformity to behavioral expectations, the consequence of the low $X+\%$ may be negligible.

However, if environmental circumstances are less accepting of an unconventional orientation, the likelihood of confrontations or adjustment difficulties is considerable. For instance, Holaday et al. (1992) studied the Rorschachs of 63 children and adolescents who had experienced considerable trauma. They found that the $X+\%$'s were considerably lower than expected, but did not find significant elevations in the $X-\%$'s. Many persons who run afoul of social rules and regulations have protocols in which the $X+\%$ is low, partly or mainly because of elevations in the $Xu\%$. Gacono, Meloy, and Bridges (2000) have reported Rorschach findings concerning psychopaths, pedophiles, and persons having committed sexual homicide. The $Xu\%$ means range from .23 to .27, while the $X-\%$ means range from .22 to .26. Obviously, substantial $X-\%$ values, especially those of .30 or higher, signify an increase in the probability of inappropriate behavior. Likewise, the composite of substantial $Xu\%$ and a higher than expected $X-\%$ increases the likelihood of adjustment problems.

The $XA\%$, $WDA\%$, and PTI

Findings that the combination of low $X+\%$ and a substantial $X-\%$ often mark the protocols of seriously disturbed individuals prompted a series of discriminant function analyses during the mid-1970s. The main purpose of these analyses was to determine if the two variables could be combined with other variables to create an index that would highlight the possible presence of a psychotic-like condition, especially schizophrenia.² An experimental index was created that included five

² At the time of this investigation, most psychotic-like states typically were diagnosed by using one of four categories classifying schizophrenia. Although other psychotic conditions, such as manic-depressive psychosis, hysterical psychosis, and so on were acknowledged, they were rendered very infrequently prior to the development of the Research Diagnostic Criteria (RDC) by Spitzer, Endicott, and Robins (1977), which ultimately led to the *DSM-III* in 1980, and the gradual narrowing of definitions of schizophrenia.

criterion tests, including cutoff values for the $X+\%$ and $X-\%$ (Exner, 1978). The experimental index was revised several times using the protocols of individuals identified as schizophrenic using the Research Diagnostic Criteria (RDC) that was in development by Spitzer, Endicott, and Robins (1977, 1978). Ultimately, a five item index, involving eight variables related to mediation or ideation, was designated as the *Schizophrenia Index* (SCZI) in 1984 and "critical" values of four or five were identified (Exner, 1984, 1986a).

The SCZI proved useful, but the refinement of criteria for the diagnoses of affective disorders and personality disorders (*DSM-III*, 1980) tended to cause unwanted false positive rates to occur for those groups, and among adolescents with histories of drug abuse or acting out behaviors. Subsequently, the SCZI was revised as shown below to include 12 variables used in six criterion tests (Exner, 1991).

Revised Schizophrenia Index—1991

SCZI1 = $X+\% < .61$ and $S-\% < .41$ or $X+\% < .50$

SCZI2 = $X-\% > .29$

SCZI3 = $FQ-> = FQu$ or $FQ-> FQo+FQ+$

SCZI4 = Sum Level 2 Special Scores > 1 or FAB2 > 0

SCZI5 = Sum6 > 6 or WSum6 > 17

SCZI6 = $M-> 1$ or $X-\% > .40$

The revised SCZI demonstrated to be useful in identifying between 65% and 80% of persons diagnosed as schizophrenic, depending on the group studied. However, the index was sometimes misused or misunderstood. In part, this was because 10% to 25% of persons with other relatively serious problems also had SCZI values of 4 or greater. This occurred most frequently among major affective disturbances but, high SCZI values were noted in a variety of instances in which psychotic-like conditions exist. Positive SCZI values among nonschizophrenics do not necessarily represent "false-positives" when considered in the context of the variables in the index. They focus on problems in mediation and ideation, and people in considerable disarray frequently become

impaired in those functions. In such cases, the label "Schizophrenia Index" often challenged interpreters to explain positive findings while rejecting the notion that the person might be schizophrenic. Moreover, the applicability of the SCZI was made more complex as the *DSM* clinical and behavioral criteria used for the diagnosis of schizophrenia gradually changed.

A more important problem with the SCZI was the *true* false-positive rate, especially among younger persons. It was a challenge to understand why false-positive values occur in the protocols of individuals who clearly are not schizophrenic and offer no evidence of psychotic-like features. In this context, a sample of 150 true false-positive cases (each having SCZI scores of 4 or greater) was selected for study. It consisted of 70 records from adolescents, ages 11 to 15, and 80 protocols from outpatient adults. A comparison sample of true-positive records was created, using diagnoses based on *DSM-III* or *DSM-IV*. It consisted of 100 protocols from persons diagnosed as being schizophrenic and 50 protocols from persons identified as having a psychotic disturbance other than schizophrenia. The two groups were reviewed for the frequencies by which each of the SCZI variables were positive.

The comparisons highlighted three variables that were positive with substantial frequencies in both groups. The SCZI1 ($X+\% < .61$ and $S-\% < .41$, or $X+\% < .50$) was positive in 122 (81%) of the 150 true-positive protocols, but also positive in 96 (64%) of the 150 false-positive records. The SCZI3 ($FQ-> FQu$, or $FQ-> FQo+FQ+$) was positive in 116 (77%) of the true-positive records, but also positive in 87 (58%) of the 150 false-positive cases. The third variable with high positive frequencies in both samples is SCZI5. The frequencies for each of the criteria in each variable were reviewed, and it became obvious that several changes could improve the index. No manipulation of criteria worked well for the two variables involving the $X+\%$ or the $FQ->$, suggesting that those variables should be replaced in the index. This prompted a

review of other approaches that might be used to identify difficulties in mediation. In the course of that review, Rorschach's $F+\%$ was revisited and modified. As resurrected, the variable was redefined as Extended Form Appropriate ($XA\%$), and calculated as the sum of all $+$, o , and u responses divided by R .

The $XA\%$ provides information concerning the proportion of all answers in which the object identified is generally commensurate with the contours of the blot or blot area used. $XA\%$ distributions for various groups, including the true-positive and false-positive groups described above, were evaluated and the results prompted a decision to incorporate it into the System. As a substitute for the two Form Quality based variables in the SCZI (SCZI1 & SCZI3), a cutoff of $XA\% < .70$ works substantially better to discriminate true and false positives. $XA\% < .70$ is positive in 119 of the 150 (79%) true-positive cases but in only 29 (17%) of the false-positive protocols.

The data regarding the $XA\%$ prompted a question about whether a variable focusing only on the appropriate use of form for W and D answers might also be useful. Therefore, another new variable, the $WDA\%$ was created. The $WDA\%$ is similar to the $XA\%$, but includes only responses given to W and D areas. Conceptually, answers formulated to the most obvious stimulus features of the Rorschach figures should usually include form use that is commensurate with the stimulus characteristics of the area involved. Stated differently, minus responses to areas that have obvious stimulus features should appear far less frequently than to other areas because of the discreteness of the distal features. A variety of analyses regarding the $WDA\%$ indicates that it is a sturdy variable that does quite well in detecting the likelihood of perceptual-mediational difficulties. For instance, 136 (91%) of the 150 true-positive cases have a $WDA\% < .75$ as contrasted with only 34 (23%) of the false-positive cases. The usefulness of the $WDA\%$ is that it removes much of the "noise" factor in the $XA\%$ by eliminating Dd answers from the calculation.

The findings regarding the $WDA\%$ raised the question about whether it would work better in a revision of the SCZI than the $XA\%$, or whether it should be used as a separate criterion variable. Additional analyses revealed that they work best in tandem as a single criterion test. In the target samples, for example, 129 (86%) of the true-positive cases have $XA\%$ values less than .70 and $WDA\%$ values less than .75 while the false-positive sample contains only 15 (10%) cases that meet both criteria. As a result of this work, the SCZI was revised to be a nine variable index with five criterion tests.

At the same time, the nomenclature for the index was reconsidered. Hilsenroth, Fowler, and Padawar (1998) studied the SCZI and found it to be effective in discriminating psychotic disorders from patients with Axis II disorders, and from persons in a nonclinical sample. However, they cautioned that the index should not be used concretely, and suggested that it might be better considered as a "Psychosis Index." Although their suggestion is logical, it was decided to be a bit more pragmatic and use the designation *Perceptual-Thinking Index* (PTI). This nomenclature was selected to more accurately represent the focus of the index and, at the same time, remove the diagnostic implications that it has carried for many years (Exner, 2000). The resulting items that comprise the PTI and the criteria for their application are:

Perceptual-Thinking Index.

1. $XA\% < .70$ and $WDA\% < .75$
2. $X-\% > .29$
3. $LVL2 > 2$ and $FAB2 > 0$.
4. $R < 17$ and $WSUM6 > 12$ or $R > 16$ and $WSUM6 > 17^*$
5. $M- > 1$ or $X-\% > .40$

* Adjust for age 13 and younger:

If $R > 16$: 5 to 7 = 20; 8 to 10 = 19; 11 to 13 = 18
 If $R < 17$: 5 to 7 = 16; 8 to 10 = 15; 11 to 13 = 14

The PTI is *not* used as a primary source for specific diagnostic decisions. In contrast to the

SCZI, there is *no critical cutoff value*. Rather, it should be viewed as a continuous scale on which higher values are less preferable than lower values. Its main purpose is to alert interpreters about the likelihood of mediational and ideational difficulties. As such, the PTI also replaced the SCZI as the first item in the listing of key variables used to determine the most appropriate order for addressing the various data clusters. It remains as the first item in the listing (PTI > 3) because high PTI values signal the importance of reviewing the data for the clusters in the Cognitive Triad prior to interpreting other data of the test.

It seems clear that PTI scores of four or five signify considerably more mediational/ideational trouble than scores of zero, one, or two, but that is a concrete differentiation. The true extent of any mediational or ideational problems unfolds only as the clusters of data pertaining to these features are thoroughly reviewed. Table 18.2 shows frequency data for each of the possible total PTI scores for persons drawn from four groups. They include schizophrenics, first admission major affective disorders, personality disorders, and nonpatients. As will be noted, PTI values of three, four, and five occur most frequently in the two groups (schizophrenic and major affective disorder) that usually experience the greatest disorganization in cognitive functioning.

Smith, Baity, Knowles, and Hilsenroth (2002) have studied the usefulness of the PTI to assess thought disturbance in a group of 42 inpatient children and adolescents. They found that the PTI was able to differentiate patients with and

without elevated thought disorder scores on other measures.

POPULAR RESPONSES

Rorschach did not mention Popular (*vulgar*) responses in his monograph, but did describe them in the posthumously published 1923 paper (Rorschach & Oberholzer, 1923). He defined them as answers occurring at least once in every three records, and suggested that they reflect the ability to perceive and respond to the commonplace features of the figures. Baughman (1954) found *P* to be one of the most stable features in the test, and least subject to undue sets created by examiners. His findings are supported in a variety of retest studies (Exner, 1978, 1983; Exner, Armbruster, & Viglione, 1978; Exner & Weiner, 1982). Short-term reliabilities range from .84 to .88, and over longer intervals from .79 to .86.

Bourguignon and Nett (1955) and Hallowell (1956) demonstrated that listings of Populars generally hold well across cultural groups, although Leighton and Kluckhohn (1947), Honigmann (1949), Joseph and Murray (1951), and Fried (1977) have all illustrated that some responses are uniquely Popular for specific cultures. The Comprehensive System includes 13 Popular responses, derived from a North American, English-speaking sample. Sendin (1981) found 12 of the 13 to be Popular for a sample of 294 Spanish adult patients and nonpatients. The Card IX answer did not reach criterion. Tsugawa et al. (1999) found that only 9 of the 13 meet the criterion for *P* among a sample of 450 adults in Japan. Those not meeting criterion included the butterfly answer on Card I, the human figures on Card IX, and the spider and crab answers on Card X. Interestingly, their sample yielded two other answers, human figures on Card II, and a musical instrument to Card VI, that did meet the one in three criterion for *P*.

Beck (1932), Kerr (1934), and Hertz (1940) all reported a low incidence of *P* among intellectually retarded subjects. Ames et al. (1971) reported that

Table 18.2 Total PTI Scores for Each of Four Groups.

PTI Scores	SCHIZ N = 170	AFFDIS N = 170	PERDIS N = 155	NONPT N = 115
0	3	43	76	82
1	14	44	46	22
2	21	51	30	9
3	37	29	3	2
4	48	3	0	0
5	47	0	0	0

a gradual increase in the frequency of Popular answers occurs among children as they become older, a finding similar to that found in the nonpatient samples of children and adolescents reported by Exner (1990) and Exner and Weiner (1995).

Theoretically, P has a finite limit of 13 for the Comprehensive System although, in rare instances, individuals may give the same P response more than once, such as defining the popular DI area on Card III as two men, and then defining the same area as two women in a second answer. Nonetheless, when compared to other Rorschach variables, it is relatively easy to identify deviant frequencies. Nonpatient adults and outpatients average nearly seven, with medians of six and modes of six and four respectively. Schizophrenics average nearly five with a mode of six and a median of five, while depressives average slightly more than five, with a median of five but with a mode of eight. The skewness and kurtosis values of the curves for each group suggest that the distribution follows a relatively normal curve. Thus, it would be expected that most adults will render between five and eight Popular responses. When this is not the case, the data become interpretively important.

A low frequency of Popular responses in the record of an adult, four or less, reflects either an inability or unwillingness of the person to deliver that which may be the most obvious possible answer. It does not necessarily signify poor reality testing, but simply that, for some reason, the individual offered fewer highly typical responses than expected. Interestingly, the correlation between the frequency of P answers and the $X+\%$ is negligible, $-.02$ for 100 nonpatient adults (Exner, Viglione, & Gillespie, 1984). Thus, it does not necessarily hold true that the person oriented to giving commonplace answers will also yield a considerable frequency of Popular responses. Low P may signal serious cognitive problems, but it also may reflect a more unique person who does not violate reality, but instead tends to deal with it in a common, but not highly conventional manner. The basic key to sorting through this issue will rest with the data of the $XA\%$, $WDA\%$, and $X+\%$.

When low P occurs, it is useful to review the Sequence of Scores to identify those cards to which Popular responses were not given. Table 8.3 (Chapter 8) includes the percentages of individuals who gave Popular responses to the various figures. The range is considerable. More than 90% gave the Popular response to Card VIII, whereas only about 35% gave the Popular response to Card II. Thus, if P is low, it is expected that the few Populars given will involve the figures to which high percentages of Populars occur, VIII, V, I, and III. If P is consistently absent to these Cards, the interpreter is likely to find other evidence indicating the presence of pathology, or a marked kind of nonconformity.

On the other end of the continuum, some people give an overabundance of Popular answers. If Λ is greater than 1.0, this may simply reflect the effort to economize. If Λ is not high, an elevation in the number of P probably indicates an orientation toward the more simplistic and correct, and can hint of a commitment to conventionality that is well beyond that which might be expected.

REFERENCES

- Abrams, E. W. (1955). Predictions of intelligence from certain Rorschach factors. *Journal of Clinical Psychology, 11*, 81-84.
- Ames, L. B., Learned, I., Metraux, R. W., & Walker, R. N. (1954). *Rorschach responses in old age*. New York: Harper & Row.
- Ames, L. B., Metraux, R. W., & Walker, R. N. (1971). *Adolescent Rorschach responses*. New York: Brunner/Mazel.
- Armitage, S. G., Greenberg, T. D., Pearl, D., Berger, D. G., & Daston, P. G. (1955). Predicting intelligence from the Rorschach. *Journal of Consulting Psychology, 19*, 321-329.
- Baker, L. M., & Harris, J. G. (1949). The validation of Rorschach test result against laboratory behavior. *Journal of Clinical Psychology, 5*, 161-164.
- Bannatyne, L. A., Gacono, C. B., & Greene, R. L. (1999). Differential patterns of responding among three groups of chronic, psychotic, forensic outpatients. *Journal of Clinical Psychology, 55*, 1553-1565.

- Bartell, S. S., & Solanto, M. V. (1995). Usefulness of the Rorschach inkblot test in assessment of attention deficit hyperactivity disorder. *Perceptual and Motor Skills*, 80, 531-541.
- Baughman, E. E. (1954). A comparative analysis of Rorschach forms with altered stimulus characteristics. *Journal of Projective Techniques*, 18, 151-164.
- Baughman, E. E. (1959). An experimental analysis of the relationship between stimulus structure and behavior in the Rorschach. *Journal of Projective Techniques*, 23, 134-183.
- Beck, S. J. (1930). The Rorschach test and personality diagnosis: The feeble minded. *American Journal of Psychiatry*, 10, 19-52.
- Beck, S. J. (1932). The Rorschach test as applied to a feeble-minded group. *Archives of Psychology*, 84, 136.
- Beck, S. J. (1937). Introduction to the Rorschach method: A manual of personality study. *American Orthopsychiatric Association, Monograph No. 1*.
- Beck, S. J. (1944). *Rorschach's test. I: Basic processes*. New York: Grune & Stratton.
- Beck, S. J. (1945). *Rorschach's test. II: A variety of personality pictures*. New York: Grune & Stratton.
- Beck, S. J. (1948). Rorschach F plus and the ego in treatment. *American Journal of Orthopsychiatry*, 18, 395-401.
- Beck, S. J., Beck, A. T., Levitt, E. E., & Molish, H. B. (1961). *Rorschach's test. I: Basic processes* (3rd ed.). New York: Grune & Stratton.
- Berkowitz, M., & Levine, J. (1953). Rorschach scoring categories as diagnostic "signs." *Journal of Consulting Psychology*, 17, 110-112.
- Bourguignon, E. E., & Nett, E. W. (1955). Rorschach populars in a sample of Haitian protocols. *Journal of Projective Techniques*, 19, 117-124.
- Bouvier, C. R. (1995). Establishing normative data on the Rorschach for heroin versus cocaine abusers. *Dissertation Abstracts International*, 55, 2995.
- Caldwell, B. M. (1954). The use of the Rorschach in personality research with the aged. *Journal of Gerontology*, 9, 316-323.
- Cass, W. A., & McReynolds, P. A. (1951). A contribution to Rorschach norms. *Journal of Consulting Psychology*, 15, 178-183.
- Chesrow, E. J., Woiska, P. H., & Reinitz, A. H. (1949). A psychometric evaluation of aged white males. *Geriatrics*, 4, 169-177.
- Davidson, H. H., & Kruglov, L. (1952). Personality characteristics of the institutionalized aged. *Journal of Consulting Psychology*, 16, 5-12.
- Epstein, M. (1998). Traumatic brain injury and self perception as measured by the Rorschach using Exner's comprehensive system. *Dissertation Abstracts International*, 59, 0870.
- Exner, J. E. (1959). The influence of chromatic and achromatic color in the Rorschach. *Journal of Projective Techniques*, 23, 418-425.
- Exner, J. E. (1974). *The Rorschach: A Comprehensive System. Volume 1*. New York: Wiley.
- Exner, J. E. (1978). *The Rorschach: A Comprehensive System. Volume 2. Current research and advanced interpretation*. New York: Wiley.
- Exner, J. E. (1983). Rorschach assessment. In I. B. Weiner (Ed.), *Clinical methods in psychology* (2nd ed.). New York: Wiley.
- Exner, J. E. (1984). More on the schizophrenia index. *Alumni newsletter*. Bayville, NY: Rorschach Workshops.
- Exner, J. E. (1986a). *The Rorschach: A Comprehensive System. Volume 1: Basic foundations* (2nd ed.). New York: Wiley.
- Exner, J. E. (1986b). Some Rorschach data comparing schizophrenics with borderline and schizotypal personality disorders. *Journal of Personality Assessment*, 50, 455-471.
- Exner, J. E. (1989). Searching for projection in the Rorschach. *Journal of Personality Assessment*, 53, 520-536.
- Exner, J. E. (1990). *A Rorschach workbook for the Comprehensive System* (4th ed.). Asheville, NC: Rorschach Workshops.
- Exner, J. E. (1991). *The Rorschach: A Comprehensive System. Volume 2: Interpretation* (2nd ed.). New York: Wiley.
- Exner, J. E. (1993). *The Rorschach: A Comprehensive System. Volume 1: Basic foundations* (3rd ed.). New York: Wiley.
- Exner, J. E. (2000). *A Primer for Rorschach interpretation*. Asheville, NC: Rorschach Workshops.
- Exner, J. E. (2001). *A Rorschach workbook for the Comprehensive System* (5th ed.). Asheville, NC: Rorschach Workshops.
- Exner, J. E., Armbruster, G. L., & Viglione, D. (1978). The temporal stability of some Rorschach features. *Journal of Personality Assessment*, 42, 474-482.

- Exner, J. E., & Exner, D. E. (1972). How clinicians use the Rorschach. *Journal of Personality Assessment*, 36, 403-408.
- Exner, J. E., Martin, L. S., & Mason, B. (1984). A review of the Rorschach suicide constellation. 11th International Congress of Rorschach and Projective Techniques, Barcelona, Spain.
- Exner, J. E., & Murillo, L. G. (1973). Effectiveness of regressive ECT with process schizophrenia. *Disorders of the Nervous System*, 34, 44-48.
- Exner, J. E., Thomas, E. A., & Mason, B. (1985). Children's Rorschach's: description and prediction. *Journal of Personality Assessment*, 49, 13-20.
- Exner, J. E., Viglione, D. I., & Gillespie, R. (1984). Relationships between Rorschach variables as relevant to the interpretation of structural data. *Journal of Personality Assessment*, 48, 65-70.
- Exner, J. E., & Weiner, I. B. (1982). *The Rorschach: A Comprehensive System. Volume 3. Assessment of children and adolescents*. New York: Wiley.
- Exner, J. E., & Weiner, I. B. (1995). *The Rorschach: A Comprehensive System. Volume 3. Assessment of children and adolescents* (2nd ed.). New York: Wiley.
- Exner, J. E., & Wylie, J. (1977). Some Rorschach data concerning suicide. *Journal of Personality Assessment*, 41, 339-348.
- Feldman, M. J., Gurrslin, C., Kaplan, M. L., & Sharlock, N. (1954). A preliminary study to develop a more discriminating F+ ratio. *Journal of Clinical Psychology*, 10, 47-51.
- Fried, R. (1977). *Christmas elves on the Rorschach: A popular Finnish response and its cultural significance*. IXth International Congress of Rorschach and other projective techniques, Fribourg, Switzerland.
- Friedman, H. (1952). Perceptual regression in schizophrenia: A hypothesis suggested by use of the Rorschach test. *Journal of Genetic Psychology*, 81, 63-98.
- Gacono, C. B., Meloy, J. R., & Bridges, M. R. (2000). Rorschach comparison of psychopaths, sexual homicide perpetrators, and nonviolent pedophiles: Where angels fear to tread. *Journal of Clinical Psychology*, 56, 757-777.
- Gibby, R. G. (1951). The stability of certain Rorschach variables under conditions of experimentally induced sets: The intellectual variables. *Journal of Projective Techniques*, 3, 3-25.
- Goldberger, L. (1961). Reactions to perceptual isolation and Rorschach manifestations of the primary process. *Journal of Projective Techniques*, 25, 287-302.
- Hallowell, A. I. (1956). The Rorschach technique in personality and culture studies. In B. Klopfer et al. (Eds.), *Developments in the Rorschach technique* (Vol. 2). Yonkers-on-Hudson, NY: World Books.
- Hertz, M. R. (1936). *Frequency tables to be used in scoring the Rorschach inkblot test*. Cleveland, OH: Western Reserve University, Brush Foundation.
- Hertz, M. R. (1940). *Percentage charts for use in computing Rorschach scores*. Cleveland, OH: Western Reserve University, Brush Foundation.
- Hertz, M. R. (1942). *Frequency tables for scoring Rorschach responses* (2nd ed.). Cleveland, OH: Western Reserve University Press, Brush Foundation.
- Hertz, M. R. (1952). *Frequency tables for scoring Rorschach responses* (3rd ed.). Cleveland, OH: Western Reserve University Press, Brush Foundation.
- Hertz, M. R. (1961). *Frequency tables for scoring Rorschach responses* (4th ed.). Cleveland, OH: Western Reserve University Press, Brush Foundation.
- Hertz, M. R. (1970). *Frequency tables for scoring Rorschach responses* (5th ed.). Cleveland, OH: Western Reserve University Press, Brush Foundation.
- Hilsenroth, M. J., Fowler, J. C., & Padawar, J. R. (1998). The Rorschach Schizophrenia Index (SCZI): An examination of reliability, validity, and diagnostic efficacy. *Journal of Personality Assessment*, 70, 514-534.
- Holaday, M., Arnsworth, M. W., Swank, P. R., & Vincent, K. R. (1992). Rorschach responding in traumatized children and adolescents. *Journal of Traumatic Stress*, 5, 119-129.
- Holzberg, J. D., & Belmont, L. (1952). The relationship between factors on the Wechsler Bellevue and Rorschach having common psychological rationale. *Journal of Consulting Psychology*, 16, 23-30.
- Honigsmann, J. J. (1949). Culture and ethos of Kaska Society. *Yale University Publications in Anthropology*, No. 40.
- Joseph, A., & Murray, V. F. (1951). *Chamorros and Carolinians of Saipan: Personality studies*. Washington, DC: Howard University Press.
- Kahn, M. W. (1967). Correlates of Rorschach reality adherence in the assessment of murderers who plead insanity. *Journal of Projective Techniques*, 31, 44-47.
- Kerr, M. (1934). The Rorschach test applied to children. *British Journal of Psychology*, 25, 170-185.
- Kinder, B., Brubaker, R., Ingram, R., & Reading, E. (1982). Rorschach form quality: A comparison of the Exner and Beck systems. *Journal of Personality Assessment*, 46, 131-138.

- Kisker, G. W. (1942). A projective approach to personality patterns during insulin shock and metrazol convulsive therapy. *Journal of Abnormal and Social Psychology*, 37, 120-124.
- Klopfer, B. (1937). The present status of the theoretical development of the Rorschach method. *Rorschach Research Exchange*, 1, 142-147.
- Klopfer, B., & Davidson, H. (1944). Form level rating: A preliminary proposal for appraising mode and level of thinking as expressed in Rorschach records. *Rorschach Research Exchange*, 8, 164-177.
- Klopfer, B., & Kelley, D. (1942). *The Rorschach technique*. Yonkers-on-Hudson, NY: World Books.
- Klopfer, W. (1946). Rorschach patterns of old age. *Rorschach Research Exchange*, 10, 145-166.
- Knopf, I. J. (1956). Rorschach summary scores and differential diagnosis. *Journal of Consulting Psychology*, 20, 99-104.
- Korichin, S. J. (1960). Form perception and ego functioning. In M. Rickers-Ovsiankina (Ed.), *Rorschach psychology*. New York: Wiley.
- Leavitt, F., & Garron, D. C. (1982). Rorschach and pain characteristics of patients with low back pain and "conversion V" MMPI profiles. *Journal of Personality Assessment*, 46, 18-25.
- Leighton, D., & Kluckhohn, C. (1947). *Children of the people: The Navaho individual and his development*. Cambridge, MA: Harvard University Press.
- Lipgar, R. M., & Wachler, C. A. (1991). A Rorschach investigation of mothers of behaviorally disturbed infants. *Journal of Personality Assessment*, 56, 106-117.
- Loftus, R. H. (1997). A comparison of delinquents and nondelinquents on Rorschach measures of object relationships and attachment: Implications for conduct disorder, antisocial personality disorder, and psychopathy. *Dissertation Abstracts International*, 58, 2720.
- Mason, B. J., Cohen, J. B., & Exner, J. E. (1985). Schizophrenic, depressive, and nonpatient personality organizations described by Rorschach factor structures. *Journal of Personality Assessment*, 49, 295-305.
- Mason, B., & Exner, J. E. (1984). *Correlations between WAIS subtests and nonpatient adult Rorschach data*. Rorschach Workshops (Study No. 289, unpublished).
- Mayman, M. (1966). *Measuring reality-adherence in the Rorschach test*. American Psychological Association meetings, New York.
- Mayman, M. (1970). Reality contact, defense effectiveness, and psychopathology in Rorschach form level scores. In B. Klopfer, M. Meyer, & F. Brawer (Eds.), *Developments in the Rorschach technique. III: Aspects of personality structure* (pp. 11-46). New York: Harcourt Brace Jovanovich.
- Molish, H. B. (1959). Contributions of projective tests to psychological diagnosis in organic brain damage. In S. J. Beck & H. B. Molish (Eds.), *Reflexes to intelligence*. Glencoe, IL: Free Press.
- Molish, H. B. (1967). Critique and problems of the Rorschach: A survey. In S. J. Beck & H. B. Molish, *Rorschach's test. II: A variety of personality pictures* (2nd ed.). New York: Grune & Stratton.
- Molish, H. B., & Beck, S. J. (1958). Further exploration of the six schizophrenias: Type S-3. *American Journal of Orthopsychiatry*, 28, 483-505, 807-827.
- Paulsen, A. (1941). Rorschachs of school beginners. *Rorschach Research Exchange*, 5, 24-29.
- Pinto, A. F. (1999). A Rorschach study of object representations and attachment in male adolescents with disruptive behaviors. *Dissertation Abstracts International*, 59, 5105.
- Piotrowski, Z. (1939). Rorschach manifestations of improvement in insulin treated schizophrenics. *Psychosomatic Medicine*, 1, 508-526.
- Piotrowski, Z. (1957). *Perceptanalysis*. New York: Macmillan.
- Prados, M., & Fried, E. (1943). Personality structure of the older aged groups. *Journal of Clinical Psychology*, 3, 113-120.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Psychological diagnostic testing* (Vol. 2). Chicago: Yearbook Publishers.
- Rorschach, H. (1921). *Psychodiagnostik*. Bern, Switzerland: Bircher.
- Rorschach, H., & Oberholzer, E. (1923). The application of the interpretation of form to psychoanalysis. *Zeitschrift für die Gesamte Neurologie und Psychiatrie*, 82, 240-274.
- Saretsky, T. (1963). *The effect of chlorpromazine on primary process thought manifestations*. Unpublished doctoral dissertation, New York University.
- Schafer, R. (1954). *Psychoanalytic interpretation in Rorschach testing*. New York: Grune & Stratton.
- Sandin, C. (1981). *Identification of popular responses among Spanish adults*. X International Congress of Rorschach and Projective Techniques, Washington, DC.

- Sherman, M. H. (1952). A comparison of formal and content factors in the diagnostic testing of schizophrenia. *Genetic Psychology Monographs*, 46, 183-234.
- Sloan, W. (1947). Mental deficiency as a symptom of personality disturbance. *American Journal of Mental Deficiency*, 52, 31-36.
- Smith, S. R., Baity, M. R., Knowles, E. S., & Hilsenroth, M. J. (2002). Assessment of disordered thinking in children and adolescents: The Rorschach Perceptual-Thinking Index. *Journal of Personality Assessment*, 77, 447-463.
- Spitzer, R. L., Endicott, J., & Robins, E. (1977). *Research diagnostic criteria (RDC) for a selected group of functional disorders*. New York: State Psychiatric Institute.
- Spitzer, R. L., Endicott, J., & Robins, E. (1978). *Research diagnostic criteria for a selected group of functional disorders* (3rd ed.). New York: State Psychiatric Institute.
- Taulbee, E. S. (1955). The use of the Rorschach test in evaluating the intellectual levels of functioning in schizophrenia. *Journal of Projective Techniques*, 19, 163-169.
- Tsugawa, R., Takahashi, M., Takahashi, Y., Nishio, H., Nakamura, N., & Fuchigami, Y. (1999). *Popular responses among Japanese using the Comprehensive System*. XVI International Congress of Rorschach and Projective Methods, Amsterdam.
- Weiner, I. B. (1966). *Psychodiagnosis in schizophrenia*. New York: Wiley.
- Wishner, J. (1948). Rorschach intellectual indicators in neurotics. *American Journal of Orthopsychiatry*, 18, 265-279.
- Zamansky, H. J., & Goldman, A. E. (1960). A comparison of two methods of analyzing Rorschach data in assessing therapeutic change. *Journal of Projective Techniques*, 24, 75-82.
- Zukowsky, E. (1961). *Measuring primary and secondary process thinking in schizophrenics and normals by means of the Rorschach*. Unpublished doctoral dissertation, Michigan State University, Ann Arbor.

CHAPTER 19

Ideation

This is the third cluster in the cognitive triad. Although all three clusters deal with forms of mental activity, ideation is probably the most complex. Whereas processing concerns the action that occurs in creating an image and mediation relates to the translation of that image, ideation refers to how the translations of inputs become conceptualized and used. It is the form of thinking that entails the organization of symbols or concepts in ways that make them meaningful to the individual. Conceptual thinking is a basic ingredient for reality testing. It constitutes the core of psychological activity from which all decisions and deliberate behaviors evolve.

Although all Rorschach responses entail some conceptualization, the manifestations of it are not always obvious, especially in the response proper. For instance, if a person viewing Card I says, "A bat," the verbalization only represents the translation of the image. Even in the inquiry, when the examiner has requested that the person detail where the object is located and why it looks like that, conceptual material is not necessarily evoked. A person may say, "These could be the wings and this is the body." Again, this simply depicts the translation. It is almost certain that some sort of ideational (conceptual) activity occurred while this answer was being formed and articulated, but there is nothing in the verbal material that reflects that activity.

Fortunately, many Rorschach answers go beyond an articulation of the translation. The bat may be described either in the response or the inquiry

as flying, diving, sleeping, hanging, all of which are conceptualizations. Similarly, it might be described as angry, hurt, dead, and so on. These too are conceptualizations. They represent the products of ideational activity. In some responses, the conceptualizations are more obvious. A Card III answer such as, "Two people cooking something in a pot," or a Card V answer of "Two people sitting back to back, leaning against each other," requires considerable thought or conceptualizing.

RORSCHACH VARIABLES RELATED TO IDEATION

This cluster includes 14 variables (*EB, Lambda, EBPer, eb, a:p, HVI, OBS, Ma:Mp, Intellectualization Index, MOR, Sum6, WSum6, M-, and Mnone*) plus a qualitative review of the *M* responses and the six critical special scores. Many, or even most, of the answers that reveal characteristics of conceptual activity usually tend to fall short of exposing the more subtle nuances of the thinking involved, but the composite of data derived from those answers ordinarily provides a useful picture about the ideational (conceptual) activities of the individual.

The actual manifestations of ideation appear in several ways. All movement responses (*M, FM, m*) reflect features of ideation because conceptualization is included when movement is attributed to the object. Sometimes, the ideational features in movement responses are exhibited only by the determinant, but in other responses the conceptual

activity is displayed more distinctly by the verbal material.

Compare, for example, "A person sitting there on a stump," versus "A guy who has been traveling a long way and now he's tired and now he's sitting on this stump kind of crumpled up with his feet stuck out." Both are *Mp* responses but the first consists mainly of information regarding the translation of the image. The second is rich for conceptual material. It is important to avoid confusing conceptualization with projection. Projection often manifests in the conceptualized material, and that issue is studied in the clusters on self- and interpersonal perception. However, when interpreting data in context of ideation, the focus is on the characteristics of thinking, the quality and clarity of ideation, the frequency with which aspects of it manifest, and the manner in which it is used.

For instance, in the example above both answers include conceptualization (A person sitting on a stump), but the second is conceptually more elaborate ("... traveling long way... tired... sort of crumpled up"). Obviously, it is the expanded conceptualization that also includes more projected material but, when considered in the context of ideation, it is the quality of the conceptualization that is important.

Although movement responses are a primary source of this information, the characteristics or substance of other answers also provides important

details about the ideational activities of the person. The six critical special scores (DV, DR, INCOM, FABCOM, ALOG, and CONTAM) offer valuable data about cognitive mismanagement, ideational slippage, and faulty judgment. Another special score, MOR, often identifies the presence of an ideational set, while a subgroup of data (AB, *Art*, *Ay*) relates to the defensive use of conceptual activity.

Presearch Issues

The basic issues to be addressed concerning ideation include: (1) Are there stylistic features that depict how deliberate or directed thinking is used in everyday coping and decision making? (2) Are there unusual levels of peripheral ideational activity? (3) Is thinking marked by unusual sets that may reduce flexibility or be overly influential in conceptualization and decision making? (4) Is the ideation of the person usually clear and reasonably free of peculiarities or faulty judgment that might impact negatively on reality testing?

The ideation data for Cases 9, 10, and 11, used previously to depict the interpretation of processing and mediation, are included to illustrate the guidelines applicable to findings concerning ideation. At the end of the chapter, the conclusions derived from all three clusters in the cognitive triad are integrated and summarized.

Case 9. Ideation Variables for a 29-Year-Old Female.

				Critical Special Scores (R = 17)			
L	= 0.21	OBS	= No	HVI	= No	DV	= 0
EB	= 4:4.5	EBPer	= NA	a:p	= 5:6	INC	= 1
eb	= 7:6	[FM = 6 m = 1]		Ma:Mp	= 1:3	DR	= 1
Intell Indx = 1		MOR	= 1	M-	= 1	FAB	= 0
				Mnone	= 0	ALOG	= 1
						Sum6	= 3
						WSum6	= 10

M Response Features

IV 6. Wo Mp.FDo H P 2.0 PER,GHR
 VI 9. Do Mp- Art,Hd,Sx PHR
 VII 10. D+ Mp.Fr.FYo H 3.5 GHR
 X 24. D+ Mao 2 A 4.0 INC,COP,GHR

Case 10. Ideation Variables for a 20-Year-Old Male.

L	= 0.61	OBS	= No	HVI	= Yes	Critical Special Scores (R = 29)	
						DV = 1	DV2 = 0
EB	= 7:6.0	EBPer	= NA	a:p	= 8:8	INC = 0	INC2 = 2
				Ma:Mp	= 3:4	DR = 2	DR2 = 1
eb	= 9:6	[FM = 5 m = 4]				FAB = 1	FAB2 = 0
				M-	= 1	ALOG = 0	CON = 0
Intell Indx = 3		MOR	= 2	Mnone	= 0	Sum6 = 7	WSum6 = 25

M Response Features

II 5. D+ Ma.FCu 2 Ad 5.5 AG,FAB,PHR
 III 7. D+ Mpu 2 (H),Id,Cg 3.0 DR,GHR
 IV 10. W+ FD.Ma.FC'o (H),Bt,Cg P 4.0 AG,GHR
 VI 15. D+ Mp.mau H,Hx,Ls,Ay 2.5 MOR,AB,PHR
 VII 16. D+ Mao 2 Hd P 3.0 AG,GHR
 VIII 20. Dd+ Mp.FD.FC- Hd,Cg,Hh 3.0 PHR
 IX 23. DdS+FC'.FC.Mp.FDo (Hd),Bt 5.0 DR2,PHR

Case 9

This is the 29-year-old librarian who has multiple sclerosis. Her physician is concerned about her mood swings, sexual activity, and reality testing.

Case 10

This is the 20-year-old ministry student whose dean has raised questions about a psychiatric disturbance and interpersonal problems.

Case 11

This is the 41-year-old alcoholic inpatient. The referral asks for information about her assets and liabilities, questions whether she should remain as an inpatient, and raises the issue of suicide potential.

INTERPRETIVE ROUTINE

The interpretive strategy consists of 11 steps and includes a qualitative review of the *M* responses and the answers that contain any of the six critical special scores. The *M* responses typically provide insights regarding the quality of conceptualization. The study of the special scores and their combined weights in relation to *R* often yields a clearer picture concerning ideational slippage and/or flawed judgment.

The first seven steps in the interpretation converge on the major issues of how deliberate or directed thinking is used in everyday activities, and whether unusual features or sets may limit the

Case 11. Ideation Variables for a 41-Year-Old Female.

L	= 0.20	OBS	= No	HVI	= No	Critical Special Scores (R = 18)	
						DV = 0	DV2 = 0
EB	= 4:6.0	EBPer	= 1.5	a:p	= 7:5	INC = 0	INC2 = 4
				Ma:Mp	= 2:2	DR = 2	DR2 = 0
eb	= 8:8	[FM = 3 m = 5]				FAB = 0	FAB2 = 0
				M-	= 0	ALOG = 0	CON = 0
Intell Indx = 3		MOR	= 7	Mnone	= 0	Sum6 = 6	WSum6 = 22

M Response Features

I 4. W+ Mp.ma.FY+ Hd,Cg 4.0 MOR,INC2,PHR
 III 7. W+ Ma.C.FDo 2 H,Cg,Hh,Art P 5.5 COP,GHR
 VI 11. D+ Mpu 2 H 2.5 MOR,PHR
 VII 12. W+ Ma+ 2 H,Cg P 2.5 COP,GHR

effectiveness of ideational activity in those situations. The remaining steps focus on the assessment of ideational clarity.

Step 1: *EB, Lambda*

The *EB* and *Lambda* were discussed in the context of emotion in Chapter 16. That discussion is also relevant to the study of ideation, but a recasting of some of it more directly in the framework of ideation is necessary. As noted in Chapter 16, the *EB* reflects an introversive or extratensive style if the value on one side exceeds the other by two points or more when *EA* is 10 or less, or more than two points when *EA* is greater than 10. A higher left-side value identifies an introversive person whereas a higher right-side value indicates that the individual is extratensive. When the criterion necessary to identify a distinctive style is not met, the person is an ambitent. It also seems important to recall the exceptions discussed in Chapter 16. They are especially meaningful when studying ideation.

The first exception concerns protocols that have an *EA* of less than 4.0. Often, these records have a zero on the left side or the right side of the *EB*, such as 0:2.0, 0:3.5, 2:0, 3:0, and so on. At times, however, low values appear on both sides of the *EB*, such as 2:1, 1:2.5, 3:0.5, and so on. In either instance, the data for the *EB* are too sparse to assure validity in differentiating coping preferences, and the *EB* should *not* be regarded as valid in identifying introversive, ambitent, or extratensive styles. Typically, an avoidant style will be indicated in these protocols.

The second exception bears more directly on thinking. It concerns protocols that have a zero on the left side of the *EB* and a value greater than 3.5 on the right side, such as 0:4.0, 0:6.5, and so on. Values such as these appear to reflect an extratensive style, but that may not be true because of unusual emotional circumstances. In these cases, the person is being overwhelmed or flooded by emotion. When this condition is noted, any assumptions about a distinctive coping style should

be avoided and the *EB* finding should be used as a basis for concluding that very strong emotions are interfering with thinking and are especially impairing to the abilities necessary for attention and concentration. The intensity of these emotions is quite disruptive and usually ideational and/or behavioral impulsiveness occurs. Ordinarily, this sort of emotional intrusion into thinking is a transient condition that develops and is sustained during a period in which the individual is not able to contend effectively with powerful feelings.

When neither of the exceptions described above is positive, any of several interpretive propositions may be derived from the *EB* and *Lambda*. As noted in Chapter 16, the composite of these two variables will identify any of six coping or decision-making orientations: (1) introversive, (2) extratensive, (3) ambitent, (4) avoidant-introversive, (5) avoidant-extratensive, and (6) avoidant-ambitent. Ideation plays a continuously important role in the psychological activity of each, but the general impact and/or dominance of ideation on that activity tends to differ across these orientations, sometimes quite remarkably. The influence of ideation within these orientations or styles should not be regarded as fixed or static, but at least four of the six have a marked proclivity to weigh and/or use thinking in relatively specific ways.

Potential Finding 1: When the *EB* indicates the presence of an introversive style, and the *Lambda* is less than 1.0, it identifies an "ideational" person. People such as this rely heavily on conceptual thinking. They are inclined to think things through and delay behaviors until they have considered various options. They are prone to trust internal evaluations more than external feedback, and try to avoid being overly influenced by emotions. They are cautious, strive for precise logic when making decisions, and prefer not to become involved in trial-and-error behavior. This basic coping style can be quite effective in contending with the demands of everyday living if the patterns of

thinking are logical, clear, and consistent, and if the person is sufficiently flexible to adopt a more intuitive or trial-and-error approach in situations when the circumstances favoring such tactics are obvious. Proceed to Step 2.

Potential Finding 2: When the *EB* indicates an introversive style and the *Lambda* is greater than 0.99, it signifies that the individual is an avoidant-introversive. Avoidant-introversives are ideationally oriented, but they differ substantially from the true introversive. Although they are prone to delay decisions while considering various options, the domination of the avoidant style usually causes the process to be less thorough and their conceptual activities are likely to be marked by much more simplicity. Usually, they prefer to keep feelings at a more peripheral level during problem solving and/or decision making, but they are more vulnerable to emotional intrusions in their thinking when confronted with complexity or ambiguity. They generally favor systems of logic that are uncomplicated and they usually avoid engaging in trial-and-error explorations whenever possible. This coping orientation can be reasonably effective when circumstances are routine and unambiguous, provided that the conceptual thinking is reasonably clear and consistent. Proceed to Step 2.

Potential Finding 3: When the *EB* indicates the presence of an extratensive coping style

and the *Lambda* is less than 1.0, it can be assumed that the person is inclined to merge feelings with thinking during problem solving or decision making. Whereas the introversive person usually relies heavily on "thoughtfulness" in forming concepts and making judgments, the extratensive relies much more on feelings. This does not mean that thinking is less consistent or more illogical than in an introversive person, but the impact of emotions on ideation often give rise to more complex patterns of thought. Extratensives tend to be more accepting of logic systems that are imprecise or marked by greater ambiguity. They count on external feedback for reassurance, and their judgments are often based on the results of trial-and-error behavior. This more intuitive style can be very effective in everyday living if thinking is relatively clear and consistent, and if it is not clouded excessively by emotions or directed by intense feelings. Proceed to Step 2.

Case 11 Finding Positive

She is an extratensive person. She is prone to merge her feelings into her thinking, and they probably play an important role in most of her decisions. She prefers to test out her ideas in a trial-and-error way, and tends to rely on external feedback for direction.

Potential Finding 4: When the *EB* signifies an extratensive style and the *Lambda* is greater

Case 11. Ideation Variables for a 41-Year-Old Female.

L	= 0.20	OBS	= No	HVI	= No	Critical Special Scores (R = 18)	
						DV	= 0
EB	= 4:6.0	EBPer	= 1.5	a:p	= 7:5	INC	= 0
				Ma:Mp	= 2:2	DR	= 2
eb	= 8:8	[FM = 3 m = 5]		M-	= 0	FAB	= 0
				Mnone	= 0	ALOG	= 0
Intell Indx	= 3	MOR	= 7			Sum6	= 6
						WSum6	= 22

M Response Features

- I 4. W+ Mp.ma.FY+ Hd,Cg 4.0 MOR,INC2,PHR
 III 7. W+ Ma.C.FDo 2 H,Cg,Hh,Art P 5.5 COP,GHR
 VI 11. D+ Mpu 2 H 2.5 MOR,PHR
 VII 12. W+ Ma+ 2 H,Cg P 2.5 COP,GHR

than 0.99, it indicates that the person is an avoidant-extratsensive. Like the true extratsensive, avoidant-extratsensive individuals are very inclined to use, and be influenced by, feelings. They depend a great deal on external feedback and often become involved with trial-and-error behavior when confronted with decision-making necessities. The dominance of the avoidant style, however, increases the probability that they will not fully differentiate emotional experiences, and their feelings often become overly influential on their thinking. When they become lackadaisical about modulating their feelings, this negligence easily gives rise to impulsive-like thinking. This often results in flawed or simplistic logic, which can easily lead to decisions and/or behaviors that are less effective or even inappropriate for the situation. People with an avoidant-extratsensive style typically function most successfully in environments that are predictable and uncomplicated, and in which the open expression of feelings is readily accepted or even prized. Proceed to Step 2.

Potential Finding 5: When the *EB* fails to indicate an introversive or extratsensive coping style and the *Lambda* is less than 1.0, the person is identified as an ambitent. The pattern of ideational activity among ambitents, related to decision making, is not very predictable. This is true even though situations requiring a decision may be very similar.

Sometimes, they approach a decision using a style of thinking similar to the introversive. They push feelings aside and tend to delay while thinking through various issues. At other times, their approach is more intuitive and very influenced by feelings, much like the extratsensive. The lack of consistency in the manner by which ambitents conceptualize and formulate decisions tends to reduce efficiency.

As a result, ambitents are more vulnerable to errors in judgment, and they are more likely to reverse previous judgments. They seem to profit less from problem-solving errors than do others and, as a result, often require more time to reach effective solutions. Being an ambitent does not automatically predispose a person to adjustment problems, but the inconsistency that characterizes their thinking can become a liability because it often requires more time and effort to contend with the demands of everyday life. Proceed to Step 3.

Cases 9 and 10 Findings Positive

Both of these people are ambitents. As such, their patterns of decision making and problem solving tend to vary inconsistently. At times, decisions may evolve from a more thoughtful, ideational approach, but in other instances they may rely much more on intuition that is significantly influenced by feelings and marked by trial-and-error behaviors that afford external feedback considerable weight.

Case 9. Ideation Variables for a 29-Year-Old Female.

L	= 0.21	OBS	= No	HVI	= No	Critical Special Scores (R = 17)	
						DV = 0	DV2 = 0
EB	= 4:4.5	EBPer	= NA	a:p = 5:6		INC = 1	INC2 = 0
				Ma:Mp = 1:3		DR = 1	DR2 = 0
eb	= 7:6	[FM = 6 m = 1]				FAB = 0	FAB2 = 0
				M- = 1		ALOG = 1	CON = 0
Intell Indx = 1		MOR	= 1	Mnone = 0		Sum6 = 3	WSum6 = 10

M Response Features

IV 6. Wo Mp.FDo H P 2.0 PER,GHR
 VI 9. Do Mp- Art,Hd,Sx PHR
 VII 10. D+ Mp.Fr.FYo H 3.5 GHR
 X 24. D+ Mao 2 A 4.0 INC,COP,GHR

Case 10. Ideation Variables for a 20-Year-Old Male.

L	= 0.61	OBS	= No	HVI	= Yes	Critical Special Scores (R = 29)	
						DV = 1	DV2 = 0
EB	= 7:6.0	EBPer	= NA	a:p	= 8:8	INC = 0	INC2 = 2
				Ma:Mp	= 3:4	DR = 2	DR2 = 1
eb	= 9:6	{FM = 5 m = 4}				FAB = 1	FAB2 = 0
				M--	= 1	ALOG = 0	CON = 0
Intell Indx = 3		MOR	= 2	Mnone	= 0	Sum6 = 7	WSum6 = 25

M Response Features

- II 5. D+ Ma.FCu 2 Ad 5.5 AG,FAB,PHR
 III 7. D+ Mpu 2 (H),Id,Cg 3.0 DR,GHR
 IV 10. W+ FD.Ma.FC'o (H),Bt,Cg P 4.0 AG,GHR
 VI 15. D+ Mp.mau H,Hx,LS,Ay 2.5 MOR,AB,PHR
 VII 16. D+ Mao 2 Hd P 3.0 AG,GHR
 VIII 20. Dd+ Mp.FD.FC-- Hd,Cg,Hh 3.0 PHR
 IX 23. DdS+FC'.FC.Mp.FDo (Hd),Bt 5.0 DR2,PHR

Potential Finding 6: When *EB* identifies an ambitent and the *Lambda* is greater than 0.99, the person is an avoidant-ambitent. This is the least desirable of the six possible findings when the *EB* and *Lambda* are reviewed. It represents an unwanted psychological mixture in which the less efficient ambitent is markedly influenced by the avoidant style. The orientation to avoid complexity overlays the inconsistency in conceptual thinking, and the end product is much greater inefficiency because the array of possible conceptualizations is reduced significantly. The avoidant-ambitent is vulnerable to less sophisticated thinking and more frequent incidents in which emotions are less well modulated. This feature is very common among young children and usually tolerated by the environment, but that tolerance is considerably less when these characteristics appear among older persons. It is because of this that the avoidant-ambitent frequently has difficulties adapting effectively in a complex environment.

Step 2: *EBPer*

When an introversive or extratensive style has been identified (excluding the avoidant-introversive and avoidant-extratensive) the value

for *EBPer* should be reviewed to determine if the coping orientation indicated by the style is distinctly pervasive in decision-making situations. As noted earlier, either of the introversive or extratensive styles can be efficient and effective in coping with the demands of everyday life. However, instances arise in which an opposite approach may be much more useful. The introversive may find himself or herself in a situation where a trial-and-error strategy is much more likely to yield an effective solution, or the extratensive may be in a situation where delay and thinking through options would be the most realistic approach. The question addressed by the *EBPer* datum is whether the style is so pervasive as to limit this sort of flexibility. The *EBPer* is not a linear estimate of style pervasiveness, but can be useful in a categorical (yes or no) model. The presence of a pervasive style is not necessarily a liability but does indicate the likelihood of less flexibility in coping and decision-making activities.

Potential Finding 1: If the person is introversive and the *EBPer* is less than 2.5, it can be assumed that while he or she typically uses an ideational style involving delay, instances will occur in which feelings will contribute significantly to decisions. On the other hand, if the

Case 11. Ideation Variables for a 41-Year-Old Female.

L	= 0.20	OBS	= No	HVI	= No	Critical Special Scores (R = 18)	
						DV	= 0
EB	= 4:6.0	EBPer	= 1.5	a:p	= 7:5	INC	= 0
				Ma:Mp	= 2:2	DR	= 2
eb	= 8:8	[FM = 3 m = 5]				FAB	= 0
				M-	= 0	ALOG	= 0
Intell Indx = 3		MOR	= 7	Mnone	= 0	Sum6	= 6
						WSum6	= 22

M Response Features

I 4. W+ Mp.ma.FY+ Hd,Cg 4.0 MOR,INC2,PHR
 III 7. W+ Ma.C.FDo 2 H,Cg,Hh,Art P 5.5 COP,GHR
 VI 11. D+ Mpu 2 H 2.5 MOR,PHR
 VII 12. W+ Ma+ 2 H,Cg P 2.5 COP,GHR

EBPer is 2.5 or greater, it is likely that emotions will play only a very limited role in the decision-making activity of the subject, even in situations when a more intuitive or trial-and-error approach would be preferable. Proceed to Step 3.

Potential Finding 2: If the person is extratensive and the *EBPer* is less than 2.5, it can be assumed that the subject is prone to merge feelings with thinking most of the time, but instances will occur in which feelings are pushed aside in favor of an ideational approach that affords careful consideration of various options. Conversely, if the *EBPer* is 2.5 or greater, it suggests that the style is quite pervasive and emotions will almost always have a considerable influence on patterns of thinking, even in situations when this more intuitive approach may be less effective. Proceed to Step 3.

Case 11 Finding

The *EBPer* is 1.5, well below the critical point that would suggest a pervasive style. Therefore, it is reasonable to assume that her extratensive style will mark most of her approaches to decision making, but that she is flexible, and instances will occur in which she adopts a more ideational approach when dealing with issues.

Step 3: *a:p*

Another data set that deals with the issue of limited flexibility is the *a:p* ratio. Whereas the

EBPer relates to shifts in approaches to coping, the *a:p* ratio deals more with the extent to which attitudes or values may be well fixed and, as such, will affect the conceptual process. Thus, the findings are applicable to any coping orientation. Attitudes or values that are very well fixed tend to narrow the range of concepts or options a person may be willing to consider. As attitudes or values become well fixed, the individual becomes ideationally inflexible when matters pertaining to those attitudes or issues are addressed. Individuals with limited ideational flexibility are psychologically unwilling, or possibly unable, to consider a range of conceptual possibilities when addressing a given issue. Instead, their thinking follows a relatively narrow and well-established conceptual framework.

Although bias and prejudice can be used as examples of inflexible thinking, it is important to emphasize that the kinds of limited ideational flexibility reflected by the *a:p* findings go well beyond value systems. They can manifest in any of a broad array of psychological and behavioral situations. Consider, for example, the parent in a custody dispute who "cannot believe" that his or her child may prefer the other parent, or the supervisor who is convinced that his or her approach to a given task is the only viable possibility. When people with this feature become patients, therapists often are frustrated by the difficulty they encounter when attempting to suggest alternative views regarding the source of a problem or situation.

Usually, the value on one side of the $a:p$ ratio is not more than twice that of the other side. When the values in the ratio become more discrepant, it indicates that ideational sets and values tend to be more well fixed and difficult to alter. The data for this ratio are interpretable *only if the sum of values ($a+p$) is four or greater*.

Potential Finding 1: When the sum of the values in the ratio is four and one value is zero, it can be hypothesized that the thinking and values of the individual tend to be less flexible and more well fixed than is ordinarily the case for most people. Proceed to Step 4.

Potential Finding 2: When the sum of the values in the ratio exceeds four, and the value on one side is more than two times and as much as three times greater than the value on the other side, it can be presumed that the ideational sets and values of the person are reasonably well fixed and would be somewhat difficult to alter. Proceed to Step 4.

Potential Finding 3: When the sum of the values in the ratio exceeds four, and the value on one side is more than three times greater than the value on the other side, it can be concluded that the ideational sets and values of the individual are well fixed and relatively inflexible. People such as this find it very difficult to alter attitudes or opinions, or to view issues from a perspective different than that which they hold. Proceed to Step 4.

Cases 9, 10, and 11 Findings

The data from the $a:p$ ratio are not applicable to any of these cases. The ratios are 5:6, 8:8, and 7:5, respectively.

Step 4: HVI, OBS, MOR

These three variables all relate to mental sets or attitudes that may affect the way in which concepts are formed or used. The HVI and OBS have been discussed as sources of prerequisite information that are important when reviewing the data related

to processing and mediation because of the sets they tend to represent. Those sets are also very relevant to the study of ideation. Similarly, an unusual frequency of MOR responses indicates the presence of a mental set that can be very influential in conceptual thinking. The features represented by these variables are not mutually exclusive. Therefore, all three possible findings should be reviewed before proceeding to Step 5.

Potential Finding 1: A positive OBS signifies the presence of a mental set regarding correctness or perfectionism. People with an obsessive style usually try to take great care in forming concepts and applying them. When expressing themselves they are often more "wordy" than others, and this probably reflects the complexity of their conceptual thinking as they strive to be precise. An obsessive style requires more ideational effort and activity than might be necessary. In that respect, it can be considered as somewhat inefficient; however, it should not be regarded as a liability unless there is evidence suggesting that thinking is inconsistent, redundant, or characterized by noticeable episodes of slippage such as inappropriate word use, strange expressions, difficulty coming to closure, and so on.

Potential Finding 2: A positive HVI signifies the presence of a trait-like feature that tends to play an important role in the psychology of the individual and often has a significant impact on conceptual thinking. Hypervigilant people use considerable energy to maintain a continuous state of preparedness. This anticipatory or hyperalert state is related to a negative or mistrusting attitude toward the environment that evolves during the developmental years. It is apparently formed by an accumulation of events in which the youngster finds it impossible to accurately predict the response of significant others to their behaviors, especially emotional behaviors. This leads to a sense of insecurity and vulnerability, and a tendency to become more and more cautious when forming

Case 10. Ideation Variables for a 20-Year-Old Male.

L	= 0.61	OBS	= No	HVI	= Yes	Critical Special Scores (R = 29)	
						DV = 1	DV2 = 0
EB	= 7:6.0	EBPer	= NA	a:p = 8:8		INC = 0	INC2 = 2
				Ma:Mp = 3:4		DR = 2	DR2 = 1
eb	= 9:6	[FM = 5 m = 4]		M- = 1		FAB = 1	FAB2 = 0
				Mnone = 0		ALOG = 0	CON = 0
Intell Indx = 3		MOR	= 2			Sum6 = 7	WSum6 = 25
M Response Features							
II 5. D+ Ma.FCu 2 Ad 5.5 AG,FAB,PHR							
III 7. D+ Mpu 2 (H),Id,Cg 3.0 DR,GHR							
IV 10. W+ FD.Ma.FC'o (H),Bt,Cg P 4.0 AG,GHR							
VI 15. D+ Mp.mau H,Hx,Ls,Ay 2.5 MOR,AB,PHR							
VII 16. D+ Mao 2 Hd P 3.0 AG,GHR							
VIII 20. Dd+ Mp.FD.FC- Hd,Cg,Hh 3.0 PHR							
IX 23. DdS+FC'.FC.Mp.FDo (Hd),Bt 5.0 DR2,PHR							

or implementing behaviors. Gradually, a preoccupation with personal space and a tendency to be very guarded about interpersonal relations evolves.

Hypervigilant people do not expect closeness and often become confused and suspicious about gestures of closeness by others. The hypervigilant set causes conceptual thinking to become less clear and more inflexible than might be desired, and it often provokes patterns of thought that are illogical. This is not a pathological state but, if it becomes exacerbated, thinking usually will include very obvious paranoid-like characteristics.

Case 10 Finding Positive

His hypervigilant style was first noted during the review of the processing data. It does not necessarily signal a pathological condition, but it is likely that his thinking is less flexible than desired. It is also probable that some of his conceptualizations may be less logical than typically expected.

Potential Finding 3: MOR responses pertain most directly to issues of self-image, and are studied carefully when the cluster pertaining to that issue is reviewed. However, when they occur with a noticeable frequency, *three or more*, they signal that conceptual thinking is often marked by a pessimistic set. The value

of three is a benchmark, and probably is best interpreted as indicating a moderate but important set. Values greater than three should be regarded as being almost geometric-like progressions. As the values for MOR exceed three, the pessimistic set becomes much more pronounced, and can have a very strong impact on thinking.

Whether moderate or more severe, the presence of a pessimistic set causes a person to conceptualize his or her relationship to the world with a sense of doubt and discouragement. This set often causes people to anticipate gloomy outcomes for their efforts, regardless of the quality of the effort. Pessimism often leads to patterns of thinking in which issues are addressed more casually in a narrow and/or concrete manner. Flawed logic or faulty judgments are often disregarded even though the person may be aware of them. Overall, a pessimistic set can lower the quality of conceptual thinking significantly and, at times, can produce a picture of very disorganized ideation. Proceed to Step 5.

Case 11 Finding Positive

There are seven MOR answers in her 18 response protocol. The raw value is very important but, when considered in proportion to *R*, the magnitude

Case 11. Ideation Variables for a 41-Year-Old Female.

L	= 0.20	OBS	= No	HVI	= No	Critical Special Scores (R = 18)	
						DV	= 0
						DV2	= 0
EB	= 4:6.0	EBPer	= 1.5	a:p	= 7:5	INC	= 0
				Ma:Mp	= 2:2	INC2	= 4
eb	= 8:8	[FM = 3	m = 5]			DR	= 2
						DR2	= 0
				M-	= 0	FAB	= 0
				Mnone	= 0	ALOG	= 0
Intell Indx = 3		MOR	= 7			CON	= 0
						Sum6	= 6
						WSum6	= 22

M Response Features

- I 4. W+ Mp.ma.FY+ Hd,Cg 4.0 MOR,INC2,PHR
 III 7. W+ Ma.C.FDo 2 H,Cg,Hh,Art P 5.5 COP,GHR
 VI 11. D+ Mpu 2 H 2.5 MOR,PHR
 VII 12. W+ Ma+ 2 H,Cg P 2.5 COP,GHR

is more exaggerated. It indicates a very pronounced pessimistic set. This negative set probably intrudes into most of her cognitive activities, and the sense of doubt and expectation of failure that it creates cannot help but have a substantial impact on her thinking.

Step 5: Left-Side *eb* (*FM*, *m*)

The value for the left side of the *eb* is obtained by summing the values for *FM* and *m*. As has been noted in previous chapters, these variables relate to mental activity that is not in the conscious focus of attention. This activity is produced routinely by need experiences (*FM*), or the subtle awareness of external demand situations (*m*). This form of peripheral thought serves as a natural and valuable source of alerting stimuli that causes shifts in attention to occur, thereby altering the focus of deliberate ideation. However, when the intrusions of peripheral thinking into the focus of attention become very frequent or intense, the disruption to patterns of directed conceptual thought can be costly. These natural mental activities, which ordinarily serve an alerting function, now become distractions.

Most people experience this situation from time to time and, usually, will find themselves having difficulty concentrating or maintaining organized patterns of conceptual thought. These are transient events for most individuals, but if the source(s) of the increased levels of peripheral

mental activity are not contended with satisfactorily, a more chronic form of ideational overload is created in which conceptual thought becomes more fragmented and inconsistent.

The left-side *eb* value is useful only as a crude basis for the study of peripheral ideations. It will either be in the average range (three to six for adults and children), above average, or below average. It simply alerts the interpreter about the level of peripheral mental activity. The actual values for *FM* and *m* provide more specific information about the sources of that activity. *FM* is the more stable of the two variables, and appears to be related to mental activity that is promoted by need states.

Typically, the value for *FM* will fall between three and five for both adults and children and, ordinarily, it is expected to be within one point of the total for *FM+m*. This is because the *m* variable is very unstable and correlates with peripheral mental activity that is created by situational stress demands. The value for *m* is expected to fall between zero and two and is always expected to be less than the *FM* value.

Potential Finding 1: When the left-side value for *eb* is in the average range (three to six), the value for *FM* is expected to be the greater of the two. If the value for *m* is greater than for *FM*, it indicates that the usual level of peripheral ideation is being increased by

situationally related stress. If the *FM* value is less than two it suggests that the person somehow minimizes or avoids many of the natural mental intrusions caused by need states. Some people, usually those with an avoidant style, tend to act quickly in an attempt to reduce needs when they are experienced. Others develop conceptual tactics by which peripheral thinking is defensively merged into the stream of more controlled and directed thought, thereby temporarily reducing the impact of the needs even though they will persist and probably intensify. For example, a very hungry person might conceptualize food items or even concentrate on food recipes. This does nothing to reduce the hunger but does tend to neutralize the peripheral mental activity created by it. Proceed to Step 6.

Potential Finding 2: Left-side *eb* values of less than three are unusual findings. They appear most often in the protocols of individuals who have an avoidant coping style. If an avoidant style does not exist, it is likely that the person defensively merges peripheral thought into a directed conceptual framework of thinking (see Potential Finding 1). If an avoidant style does exist, it is probable that the person tends to react quickly to reduce the irritations created by the intrusions of peripheral thoughts. The latter is most likely to be true if the value for *FM* is zero or one.

Although this tactic is positive when viewed from a homeostatic perspective, it usually should be regarded as a negative finding because hastily formulated responses are often not well thought through and their long-term effectiveness may be very limited. Proceed to Step 6.

Potential Finding 3: If the left-side *eb* value is seven, and is created exclusively by *FM* responses or includes only one *m* response, or if the value is greater than seven and includes more than five *FM* answers, it can be surmised that internal need states are causing the person to experience a substantial level of peripheral mental activity. Usually, this situation is more chronic than transient and increases the likelihood for frequent interference with attention and concentration. If the value for *m* exceeds two, it signifies that the peripheral mental activity is also being increased by situationally related stress. Proceed to Step 6.

Case 9 Finding Positive

The left-side value is seven, created by six *FM* and one *m* answer. It is probable that she chronically experiences more peripheral mental activity than most people, and this may cause frequent problems for her in attention and/or concentration. This is not a surprising finding in that she is likely to have an increase in need states as a result of her physical problem.

Case 9. Ideation Variables for a 29-Year-Old Female.

L	= 0.21	OBS	= No	HVI	= No	Critical Special Scores (R = 17)			
						DV	= 0	DV2	= 0
EB	= 4:4.5	EBPer	= NA	a:p	= 5:6	INC	= 1	INC2	= 0
				Ma:Mp	= 1:3	DR	= 1	DR2	= 0
eb	= 7:6	[FM = 6	m = 1]			FAB	= 0	FAB2	= 0
				M-	= 1	ALOG	= 1	CON	= 0
Intell Indx = 1		MOR	= 1	Mnone	= 0	Sum6	= 3	WSum6	= 10

M Response Features

IV 6. Wo Mp.FDo H P 2.0 PER,GHR
 VI 9. Do Mp- Art,Hd,Sx PHR
 VII 10. D+ Mp.Fr.FYo H 3.5 GHR
 X 24. D+ Mao 2 A 4.0 INC,COP,GHR

Case 10. Ideation Variables for a 20-Year-Old Male.

L	= 0.61	OBS	= No	HVI	= Yes	Critical Special Scores (R = 29)	
						DV = 1	DV2 = 0
EB	= 7:6.0	EBPer	= NA	a:p	= 8:8	INC = 0	INC2 = 2
				Ma:Mp	= 3:4	DR = 2	DR2 = 1
eb	= 9:6	[FM = 5 m = 4]				FAB = 1	FAB2 = 0
				M-	= 1	ALOG = 0	CON = 0
Intell Indx = 3		MOR	= 2	Mnone	= 0	Sum6 = 7	WSum6 = 25

M Response Features

- II 5. D+ Ma.FCu 2 Ad 5.5 AG,FAB,PHR
 III 7. D+ Mpu 2 (H),Id,Cg 3.0 DR,GHR
 IV 10. W+ FD.Ma.FC'o (H),Bt,Cg P 4.0 AG,GHR
 VI 15. D+ Mp.mau H,Hx,LS,Ay 2.5 MOR,AB,PHR
 VII 16. D+ Mao 2 Hd P 3.0 AG,GHR
 VIII 20. Dd+ Mp.FD.FC- Hd,Cg,Hh 3.0 PHR
 IX 23. DdS+FC'.FC.Mp.FDo (Hd),Bt 5.0 DR2,PHR

Potential Finding 4: When the left-side *eb* value is seven but includes no more than four *FM*, or is more than seven but includes no more than five *FM* answers, the elevation in the left-side *eb* obviously is created by an unexpected increase in *m*. This finding indicates that the person is experiencing a noticeable increase in peripheral mental activity because of situationally related stress. Ordinarily, this will be a transient condition, however, it is important to note that attention and concentration activities can be reduced significantly during its duration. Proceed to Step 6.

Case 10 Finding Positive

The left-side value of nine is created by five *FM* and four *m* responses. It is very probable that a substantial increase in peripheral mental activity has been created by the fact that he is being challenged for both his attitudes and his social behaviors. Undoubtedly, this has an impact on his attention-concentration abilities, and possibly disrupts some of his patterns of thought.

Case 11 Finding Positive

The left-side value of eight is created by three *FM*'s and five *m*'s. It seems clear that she is under

Case 11. Ideation Variables for a 41-Year-Old Female.

L	= 0.20	OBS	= No	HVI	= No	Critical Special Scores (R = 18)	
						DV = 0	DV2 = 0
EB	= 4:6.0	EBPer	= 1.5	a:p	= 7:5	INC = 0	INC2 = 4
				Ma:Mp	= 2:2	DR = 2	DR2 = 0
eb	= 8:8	[FM = 3 m = 5]				FAB = 0	FAB2 = 0
				M-	= 0	ALOG = 0	CON = 0
Intell Indx = 3		MOR	= 7	Mnone	= 0	Sum6 = 6	WSum6 = 22

M Response Features

- I 4. W+ Mp.ma.FY+ Hd,Cg 4.0 MOR,INC2,PHR
 III 7. W+ Ma.C.FDo 2 H,Cg,Hh,Art P 5.5 COP,GHR
 VI 11. D+ Mpu 2 H 2.5 MOR,PHR
 VII 12. W+ Ma+ 2 H,Cg P 2.5 COP,GHR

considerable situationally related stress. There is a question about whether she should remain in the hospital, and a question has been raised about whether she may be suicidal. The general sense of helplessness that she seems to have probably causes much interference with her ability to sustain consistency in her thinking.

Step 6: *Ma:Mp*

Everyone develops fantasies from time to time. They are convenient ways of using conceptual ideation to temporarily avoid the burdens or demands of reality. In fact, the modern environment includes many sources that aid in the development of fantasy, such as books, television, radio, movies. Each in its own way provides the individual with a handy source that facilitates a detachment from reality, but none of these aids are really necessary for fantasy to occur. Most every person is capable of "daydreaming," a fantasy process in which conceptual thinking becomes focused on something other than reality.

Many sources, such as memories, anticipations, needs, desires, can prompt daydreams. Whatever the basis, they are common events in everyday life, during which directed ideation is used to deny the perceived dreariness or harshness of the immediate world and replace it with a situation that is more easily managed. Often, fantasy does more than simply bring temporary relief from reality. It can be a source of reward (even though unreal) and, possibly most important for some individuals, it affords a sense of absolute control.

The psychological relief that fantasy brings, even though transient, causes some people to use it as one of the integral components of their defense system. They tend to become involved with fantasy more frequently than is common. It is an abusive use, which, although temporarily reinforcing, can become a significant liability because it leads the individual into detachments from reality too often. When these instances of ideational denial occur too frequently, the person tends to become dependent on others because of

an implicit assumption that external forces will bring resolution to an unpleasant situation if it can be avoided long enough. The abuse of fantasy creates risks for anyone but probably most for the introversive person because the basic coping style is being committed to ways that are more likely to be ineffective over long periods.

The *Ma:Mp* ratio does not provide any direct insights into the fantasy life of a person. Its usefulness is derived from the fact that the value for *Ma* is always expected to be greater than the value for *Mp*. When this is true, the magnitude of the difference has no interpretive significance. However, when the value for *Mp* is greater than the value for *Ma*, it does identify individuals who tend to use fantasy more routinely than is common. The ratio is useful *only if the value for M is greater than one*.

Potential Finding 1: When the value for *Mp* is one point more than the value for *Ma*, it indicates that the person has a distinct tendency to defensively substitute fantasy for reality in stressful situations more often than do most people. This can be a very effective defensive strategy and should not be considered as a liability unless other evidence indicates that the person is markedly dependent on others. If the individual is prone to unusual dependence on others, the tendency to abuse fantasy only serves to exacerbate the dependency orientation. Proceed to Step 7.

Case 10 Finding Positive

Mp does exceed *Ma* by one point, indicating that he is prone to become involved with fantasy more often than most people. The issue of how this tendency may be related to his current situation and/or whether it should be regarded as a significant liability should be held in abeyance until information develops concerning his thinking, and also concerning his self- and interpersonal perceptions.

Potential Finding 2: When the value for *Mp* is two or more points greater than the value for

Case 10. Ideation Variables for a 20-Year-Old Male.

L	= 0.61	OBS	= No	HVI	= Yes	Critical Special Scores (R = 29)			
						DV	= 1	DV2	= 0
EB	= 7:6.0	EBPer	= NA	a:p	= 8:8	INC	= 0	INC2	= 2
				Ma:Mp	= 3:4	DR	= 2	DR2	= 1
eb	= 9:6	[FM = 5	m = 4]			FAB	= 1	FAB2	= 0
				M-	= 1	ALOG	= 0	CON	= 0
Intell Indx = 3		MOR	= 2	Mnone	= 0	Sum6	= 7	WSum6	= 25

M Response Features

- II 5. D+ Ma.FCu 2 Ad 5.5 AG,FAB,PHR
 III 7. D+ Mpu 2 (H),Id,Cg 3.0 DR,GHR
 IV 10. W+ FD.Ma.FC'o (H),Bt,Cg P 4.0 AG,GHR
 VI 15. D+ Mp.mau H,Hx,LS,Ay 2.5 MOR,AB,PHR
 VII 16. D+ Mao 2 Hd P 3.0 AG,GHR
 VIII 20. Dd+ Mp.FD.FC- Hd,Cg,Hh 3.0 PHR
 IX 23. DdS+FC'.FC.Mp.FDo (Hd),Bt 5.0 DR2,PHR

Ma, it indicates the presence of a stylistic orientation in which flights into fantasy have become a routine tactic for dealing with unpleasant situations. This feature sometimes is referred to as a *Snow White Syndrome*, which is characterized mainly by the avoidance of responsibility and decision making. People such as this use fantasy with an abusive excess to deny reality, and often the results are counterproductive to many of their own needs.

This mode of coping creates a self-imposed helplessness because it requires a dependency on others. Unfortunately, individuals with this feature are quite vulnerable to the manipulations of others. The pervasiveness of this

defensive coping style is particularly detrimental for the introversive subject because the basic ideational orientation becomes subservient to the dependency orientation in situations that seem overly complex or potentially stressful. Proceed to Step 7.

Case 9 Finding Positive

The *Ma:Mp* ratio of 1:3 indicates that she relies extensively on fantasy as a way of denying or contending with realities that she prefers to avoid dealing with directly. It also suggests that she may be overly dependent on others as a source for reinforcement, or for the resolution of distasteful circumstances. Although this is only one data point, it

Case 9. Ideation Variables for a 29-Year-Old Female.

L	= 0.21	OBS	= No	HVI	= No	Critical Special Scores (R = 17)			
						DV	= 0	DV2	= 0
EB	= 4:4.5	EBPer	= NA	a:p	= 5:6	INC	= 1	INC2	= 0
				Ma:Mp	= 1:3	DR	= 1	DR2	= 0
eb	= 7:6	[FM = 6	m = 1]			FAB	= 0	FAB2	= 0
				M--	= 1	ALOG	= 1	CON	= 0
Intell Indx = 1		MOR	= 1	Mnone	= 0	Sum6	= 3	WSum6	= 10

M Response Features

- IV 6. Wo Mp.FDo H P 2.0 PER,GHR
 VI 9. Do Mp- Art,Hd,Sx PHR
 VII 10. D+ Mp.Fr.FYo H 3.5 GHR
 X 24. D+ Mao 2 A 4.0 INC,COP,GHR

is difficult to avoid the speculation that her seemingly excessive sexual activity may have a relationship to the dependency orientation noted here.

Step 7: Intellectualization Index

Another way in which conceptual thinking is sometimes used defensively is intellectualization. This process of reducing or neutralizing the intensity of emotion by dealing with it ideationally has already been described in Chapter 16. Intellectualization is a form of denial that requires the use of some sort of unusual thinking to bend reality. For instance, the obviously sad person who adamantly proclaims, "I'm feeling fine," must distort the conceptualization of internal cues in order to believe the statement is correct.

Although most people intellectualize from time to time, its habitually excessive use as a defense can cause the thinking of the person to become vulnerable to flawed logic or the distortion of internal cues. It does not automatically lead to thinking problems but does heighten the possibility that the person will form and/or accept faulty concepts. When carried to an extreme, intellectualization can become a basic ingredient in forming or sustaining very misconstrued concepts similar to those found in delusional thinking.

Potential Finding 1: When the value for the index falls between four and six, it signifies that the person is more prone than most to intellectualize feelings. This suggests that the individual may adopt or accept a distorted form of conceptual thinking that serves to deny the true impact of a situation. Proceed to Step 8.

Potential Finding 2: If the index value exceeds six, it signifies that the person uses intellectualization as a major defensive tactic in situations that are perceived as stressful. It is a pseudo-intellectual process that conceals and/or permits denial and, as a result, reduces the likelihood that feelings will be dealt with directly and/or realistically. People such as this are quite vulnerable to accepting distorted concepts and

their ideation can become disorganized during intense emotional experiences because the intellectualization tactic becomes less effective as the magnitude of stressful stimuli increases. Proceed to Step 8.

Step 8: *Sum6* and *WSum6*

This is the first of four steps that focus on the issue of clarity or peculiarity in thinking. The six critical special scores are used to identify difficulties in conceptual thinking and, indirectly, address the issue of ideational clarity. Each signifies that some form of cognitive mismanagement or ideational slippage has occurred, but they differ considerably in the degree of difficulty that each represents. That is why they are assigned weights. They probably are best thought of as falling on a three-segment continuum regarding cognitive dysfunction with the DV1 at one end and the CONTAM at the other:

DV1	INC1	DR1	DV2	FAB1	INC2	ALOG	DR2	FAB2	CONTAM
Mild			Serious			Severe			

In this perspective, the special scores falling into the second and third segments are the most direct representations of conceptual or ideational difficulties. The three scores in the first segment (DV1, INC1, DR1) often reflect a sort of cognitive carelessness. This does not mean that they are unimportant to the study of ideation, for that is not true. Sometimes, they signify a lack of clarity in thinking, and they often will increase with a notable frequency when difficulties in conceptual thinking exist.

DV1 responses typically involve brief instances of cognitive mismanagement. Distorted language use or idiosyncratic modes of expression impede the person's ability to communicate clearly. They are common in the records of children who often struggle to convey impressions clearly or easily. Two or even three DV1 responses have little importance but, if they occur with a higher frequency in the adult record, some sort of cognitive problem exists, and the issue of language skills should be

explored more fully. DV2 responses reflect a much more serious form of cognitive mismanagement. They usually signal the presence of a preoccupation that is intruding into the conceptual operations of the individual.

The INCOM1 is the most common of the six special scores in the records of nonpatient adults, and also appears frequently in the records of children. It represents unusual combinations of blot details into a single object. They are not bizarre, but they do signify a conceptual failure to discriminate and/or a kind of concrete reasoning. As with the DV1, one or two INCOM1 answers taken alone usually will not be cause for concern. On the other hand, the INCOM2 response goes well beyond a simple level of discrimination failure. They usually are bizarre and reflect a very strained kind of logic that occurs most often among those whose thinking is seriously impacted by preoccupations and/or a marked disregard for reality.

DR1 responses usually represent indecisiveness or a defensive attempt to detach from the task at hand. In that sense, they simply reflect poor judgment, but if they appear frequently, or if extensive rambling is involved, they tend to illustrate poor control over ideational impulses. DR2 answers reflect a much more serious problem in ideational impulse control. They signify some impairment to the ability to stay "on target." Even one DR2 answer suggests that conceptual thinking is impulsive and disjointed.

FABCOM1 answers represent less mature forms of ideation. They reflect very loose conceptual associations and irrational synthesizing, which usually will occur only when thinking is not very clear. Although not uncommon among young children, the frequency is much lower among adolescents and adults. The presence of two or more FABCOM1 answers in the record of a person older than 12 is a negative sign. At the very least, it indicates very loose and immature thinking. FABCOM2 answers are much more bizarre, and are indicative of significant disruption in conceptualization. They reflect an extreme disregard for reality and suggest that the

judgments of the individual often are severely flawed and/or overwhelmed because ideation is not well controlled. Even one FABCOM2 signifies a serious thinking problem, and indicates that reality testing is jeopardized because of very notable patterns of conceptual distortion.

ALOG responses represent forms of strained reasoning in which faulty cause and effect relationships are simplistically created and maintained. Usually, they are more concrete than bizarre and indicate that poor judgment has influenced conceptualization. They are not uncommon among young children, but should be regarded as indicating unexpectedly poor judgment and immature thinking when they appear in the records of adolescents or adults. CONTAM responses are quite rare and reflect the most severe form of ideational disorganization. They entail a fluid conceptualization process that becomes merged with very strained reasoning. The end product is a form of thinking that is markedly detached from reality.

Almost every protocol will contain some of these special scores, and the frequency by which they occur is greater among children. None, with the exceptions of the DR2, FAB2, and CONTAM, are necessarily major causes for concern, provided that they occur with very low frequencies. The total (*Sum6*) has some relevance to interpretation because it denotes how often instances of mismanagement or slippage have occurred. Generally, however, the total weighted value (*WSum6*), considered in relation to *R* and the frequency data for each of the scores, provide more specific information about the clarity of thinking and whether a thinking problem exists.

The information provided about ideational clarity from the *Sum6*, *WSum6*, and the frequencies for the six special scores is indirect. The absence of distinctly negative features simply means that instances of cognitive mismanagement or ideational slippage occur no more frequently than is expected. It is a "no news is good news" finding that signifies there is no reason to question the clarity of conceptual thinking. However, this does not

necessarily mean that thinking will be appropriate or effective. The issue of ideational clarity is addressed again in the remaining steps of the interpretive routine, and hypotheses about clarity derived here may be altered.

Potential Finding 1: Regardless of *R*, if the *WSum6* is six or less for an adult or adolescent age 14 or older, and includes *only* Level 1 DV, INCOM, or DR responses, it is an unremarkable finding. There is no reason to question the clarity of conceptual thinking.

Potential Finding 1a [For younger persons]: The conceptual thinking of youngsters is not expected to have the clarity or sophistication of older adolescents or adults. They are prone to manifest more incidents of cognitive mismanagement or ideational slippage. In that context, the following guidelines can be used to conclude that ideational clarity is probably similar to that of most in their age group, provided there are no CONTAM responses:

Ages 11 to 13 *WSum6* is eight or less.

Ages 8 to 10 *WSum6* is 10 or less.

Ages 5 to 7 *WSum6* is 12 or less.

Proceed to Step 9.

Potential Finding 2: Regardless of *R*, if the *WSum6* is six or less for an adult, or adolescent age 14 or older, and includes either a FABCOM or ALOG response, but does not include CONTAM or Level 2 answers, it indicates that thinking tends to be marked by faulty judgment or ideational slippage more often than is common. This does not necessarily reflect a thinking problem, but does suggest that thinking is less clear than might be expected and some of the conceptualizations of the individual are less mature or less sophisticated than is typical. Proceed to Step 9.

Potential Finding 3: If *R* is 17 or greater for the protocol of an adult or adolescent age 14 or older, and the *WSum6* falls in the range of seven to 10, but does not include CONTAM or Level 2 responses, it can be assumed that ideational

activity is marked more often by slippage and/or faulty judgment than is common. This does not necessarily reflect a thinking problem but does signify that the thinking tends to be less clear and considerably less sophisticated than is typical. This same assumption is applicable for records of adults and older adolescents in which *R* is 16 or less and the *WSum6* falls between seven and nine, but does not include Level 2 or CONTAM responses.

Potential Finding 3a [For younger persons]: A similar conclusion is applicable for younger persons who meet the following age based guidelines provided there are no CONTAM answers:

Ages 11 to 13 *WSum6* is in the range of 9 to 12.

Ages 8 to 10 *WSum6* is in the range of 11 to 14.

Ages 5 to 7 *WSum6* is in the range of 13 to 15.

Proceed to Step 9.

Case 9 Finding

The *WSum6* of 10 is derived from one INCOM, one DR response, and one ALOG. The INCOM probably represents a form of concrete reasoning, and the DR is likely to represent an attempt to detach from the task at hand. The ALOG is the most serious of the three and is likely to reflect reasonably poor judgment. Collectively, they represent more slippage or flawed judgment than would be expected, and seem to indicate that her thinking is often less clear or less sophisticated than is typical for an intelligent adult.

Potential Finding 4: If *R* is 17 or more for the protocol of an adult or an adolescent 14 or older, and the *WSum6* is in the range of 11 to 17, it signifies a serious thinking problem. Episodes of ideational discontinuity or faulty conceptualization that cloud thinking and promote faulty judgment are more common than desirable. As a result, the probability of flawed decision making is increased substantially. This assumption is applicable for the

Case 9. Ideation Variables for a 29-Year-Old Female.

L	= 0.21	OBS	= No	HVI	= No	Critical Special Scores (R = 17)	
						DV = 0	DV2 = 0
EB	= 4:4.5	EBPer	= NA	a:p	= 5:6	INC = 1	INC2 = 0
				Ma:Mp	= 1:3	DR = 1	DR2 = 0
eb	= 7:6	[FM = 6 m = 1]				FAB = 0	FAB2 = 0
				M-	= 1	ALOG = 1	CON = 0
Intell Indx = 1		MOR	= 1	Mnone	= 0	Sum6 = 3	WSum6 = 10

M Response Features

IV 6. Wo Mp.FDo H P 2.0 PER,GHR
 VI 9. Do Mp- Art,Hd,Sx PHR
 VII 10. D+ Mp.Fr.FYo H 3.5 GHR
 X 24. D+ Mao 2 A 4.0 INC,COP,GHR

records of adults and older adolescents that have *R* of 16 or less if the *WSum6* is in the range of 10 to 12.

Potential Finding 4a [For younger persons]:

A similar conclusion is appropriate for younger persons who meet the following age based guidelines:

Ages 11 to 13 *WSum6* is in the range of 13 to 17.

Ages 8 to 10 *WSum6* is in the range of 15 to 19.

Ages 5 to 7 *WSum6* is in the range of 16 to 20.

Proceed to Step 9.

Potential Finding 5: If *R* is 17 or more for the protocol of an adult or older adolescent and the *WSum6* is greater than 18, it signifies that thinking is likely to be seriously disturbed. When conceptualization is impaired at this level, the reality testing of the individual is usually marginal, at best. Thinking tends to be disorganized, inconsistent, and frequently marked by very flawed judgments. Bizarre conceptualizations are not uncommon, and usually people such as this are unable to contend with the demands of everyday living in ways that will be persistently effective. These assumptions are applicable for the records of adults and older adolescents who have *R* of 16 or less if the *WSum6* is greater than 12.

Potential Finding 5a [For younger persons]:

A similar conclusion is appropriate for younger persons who meet the following age based guidelines:

Ages 11 to 13 *WSum6* is greater than 18.

Ages 8 to 10 *WSum6* is greater than 19.

Ages 5 to 7 *WSum6* is greater than 20.

Proceed to Step 9.

Case 10 Finding Positive

There are several categories of critical special scores that created the *WSum6* of 25. He gave one DV, two INCOM2's, two DR's, one DR2, and a FABCOM. When a considerable dispersion of critical special scores exists, any notion that the *WSum6* may exaggerate a thinking problem flies into the face of reality. His thinking seems to be quite disturbed, and it is very likely that his reality testing is noticeably impaired.

Case 11 Finding Positive

The *WSum6* of 22 has been created by six critical special scores from two categories, DR and INCOM2. The magnitude of the *WSum6* strongly suggests that her thinking is often disorganized and inconsistent, but the issue of whether a thinking disorder exists should probably be held in abeyance, pending a more careful evaluation of the responses containing the special scores. This is because, usually, thought disorders tend to manifest in several different ways rather than in one or two Special Scores categories.

Case 10. Ideation Variables for a 20-Year-Old Male.

L	= 0.61	OBS	= No	HVI	= Yes	Critical Special Scores (R = 29)	
						DV = 1	DV2 = 0
EB	= 7:6.0	EBPer	= NA	a:p	= 8:8	INC = 0	INC2 = 2
				Ma:Mp	= 3:4	DR = 2	DR2 = 1
eb	= 9:6	[FM = 5	m = 4]			FAB = 1	FAB2 = 0
				M-	= 1	ALOG = 0	CON = 0
Intell Indx = 3		MOR	= 2	Mnone	= 0	Sum6 = 7	WSum6 = 25

M Response Features

- II 5. D+ Ma.FCu 2 Ad 5.5 AG,FAB,PHR
 III 7. D+ Mpu 2 (H),Id,Cg 3.0 DR,GHR
 IV 10. W+ FD.Ma.FC'o (H),Bt,Cg P 4.0 AG,GHR
 VI 15. D+ Mp.mau H,Hx,Ls,Ay 2.5 MOR,AB,PHR
 VII 16. D+ Mao 2 Hd P 3.0 AG,GHR
 VIII 20. Dd+ Mp.FD.FC- Hd,Cg,Hh 3.0 PHR
 IX 23. DdS+FC'.FC.Mp.FDo (Hd),Bt 5.0 DR2,PHR

Case 11. Ideation Variables for a 41-Year-Old Female.

L	= 0.20	OBS	= No	HVI	= No	Critical Special Scores (R = 18)	
						DV = 0	DV2 = 0
EB	= 4:6.0	EBPer	= 1.5	a:p	= 7:5	INC = 0	INC2 = 4
				Ma:Mp	= 2:2	DR = 2	DR2 = 0
eb	= 8:8	[FM = 3	m = 5]			FAB = 0	FAB2 = 0
				M-	= 0	ALOG = 0	CON = 0
Intell Indx = 3		MOR	= 7	Mnone	= 0	Sum6 = 6	WSum6 = 22

M Response Features

- I 4. W+ Mp.ma.FY+ Hd,Cg 4.0 MOR,INC2,PHR
 III 7. W+ Ma.C.FDo 2 H,Cg,Hh,Art P 5.5 COP,GHR
 VI 11. D+ Mpu 2 H 2.5 MOR,PHR
 VII 12. W+ Ma+ 2 H,Cg P 2.5 COP,GHR

Step 9: Evaluation of Critical Special Scores

Sometimes the *WSum6* may underestimate or overestimate negative ideational features. It is for this reason that a review of the answers containing critical special scores is necessary. For instance, the *WSum6* could become substantial simply because a person habitually substitutes the word "hands" instead of paws or feet when describing various animals. If this occurs four or five times, the *WSum6* will be in a range that prompts a negative postulate. Although the INCOM coding is correct, the resulting *WSum6* is misleading and the postulate derived in Step 8 should be tempered. Conversely, a protocol may contain only

two or three special scores that contain hints of bizarreness, but in the opinion of the scorer did not meet a Level 2 criterion. In such a case, the *WSum6* might easily underestimate the extent of ideational slippage that is present.

This step involves a more subjective evaluation that should focus on three issues: (1) the extent to which the Special Scores reflect sub-cultural phenomena, educational limitations, or a persistent tendency to mismanage word selection; (2) the extent to which unclear thinking and/or flawed judgment is illustrated in the answers; and (3) the extent to which the bizarre features in the CONTAM, Level 2, and some ALOG responses clearly signal pathological kinds of thinking.

Potential Finding 1: If the majority of responses containing the critical Special Scores appear to reflect commonplace verbiage within the subculture of the individual or for those with similar educational backgrounds, postulates concerning ideational slippage should be tempered, but not necessarily rejected. Similarly, if most or all of special scores appear to have been created because of a persistent problem in word selection, the postulate generated in Step 8 should be modified appropriately. Any modifications to Step 8 postulates should be reevaluated at Step 10.

Potential Finding 2: Often, none of the answers containing the critical special scores are bizarre, but several may reflect forms of flawed or immature logic that are not expected for persons of this age. When this is true, any postulates developed from Step 8 should be broadened to note that the individual may be socially inept or unable to contain or direct ideation adaptively. Sometimes, data regarding controls will shed some light on this finding but, regardless of findings regarding controls, it is reasonable to conclude that the conceptualizations of the individual are prone to be influenced by flawed logic or faulty judgment.

Potential Finding 3: If the bizarreness of any ALOG, CONTAM, or Level 2 responses clearly seems to evidence significantly disturbed thinking, the recent behavioral history of the person will probably contain some confirming information about this. If the behavioral history fails to provide this confirmation, the possibility of some form of exaggeration or malingering of symptoms should be considered. Proceed to Step 10.

Case 9 Finding

There are three critical special scores in the protocol:

Card VI (D3) "Oh, I just dkno, I supp the top prt cld ll a man's organ, his penis." (Inquiry) "It's not real, it's lik an artist's drawing. It's supp to b an erect penis I guess, it sorta has tht shape, I guess u

eld c it lik tht, altho I'm thinkg tht the artist was kinda weird to draw it lik ths." [DR]

Card X (D4) "Sea horses, c th way thy curl, but thy look stiff so thy must be dead." (Inquiry) "It's tht shape & I thk thyr supp to b green too, but thy look stiff." [E: Stiff?] "I dko, thy j ll tht, I figur thyr dead." [ALOG]

Card X (D11) "It ll 2 bugs holdg smthg up, c ths thg betwn thm." (Inquiry) "Well, thy hav antennae & thyr standg up on their back legs, thy ll beetles standg up on their bk legs holdg onto whtevr ths thg is." [INCOM]

The hypothesis developed at Step 8 suggested that her thinking might be less clear or consistent, and marked by more slippage or flawed judgment than might be expected. None of the answers containing these special scores are bizzare, but they do seem less mature and concrete. The special scores occur because she unnecessarily adds something to the response, "... the artist was kinda weird," "... so thy must be dead," "... thy ll beetles" (which do not stand on their back legs). Collectively, they seem consistent with the Step 8 postulate.

Case 10 Finding

There are seven critical special scores in this protocol:

Card I (W) "It ll ss of bug w eyes in the middl & wgs outside." (Inquiry) "The eyes r here in the middl, lik prt of the wgs, thyr pretty funny lookg wgs." [E: Funny lookg?] "Well, thy got the eyes on em, th wgs go up behnd thm & here r antennae, I dthk anyone ever saw one lik ths, I nevr did before." [INC2, DR]

Card II (D2) "The top prt ll faces, u can c an eye there, sk of birds." (Inquiry) "The eye is here & the eyebrow here, it's lik thyr stickg their tongues out at eo, I dk wht thy r, just birds, thy hav a bird face, red birds, but I dkno wht kind." [FAB]

Card III (D1) "2 strang lookg thgs facg eo, seem to hav faces lik pigs & claws for hands." (Inquiry) "Thes wb the heads (points), thyr angular, & here r their bodies, their knees hav some horrible thgs tht com out, & thy hav boots on. Their legs & arms look sorta normal, human lik, but thy hav claw hands & it ll thyr holdg thes round thgs, lik a big ball, thy must repres ss of creature fr anothr

world." [E: U said their knees hav horrible thgs?] "It's smthg tht just looks horrible." [DR]

Card IX (D11+DdS22) "Ths ll a strang creature w white & green eyes & a long nose lookg fr behnd a bush." (Inquiry) "Here wb the eyes, prt white & prt green & ths long nose, lik it's hangg ovr the bush & all of ths (D11) is the bush, it's nothg human, lik smthg fr anothr world tht nobody has evr seen." [DR2]

Card X (D9) "The red prts ll intestines." (Inquiry) "Ths red prts, thy ll tht, long gloppy thgs tht r diff colors of red." [E: Diff colors of red?] "Lite red & drk red & even som bluish prts, thts how thy look, I havnt seen thm since I took biology but I rem thm lik ths." [DV]

Card X (D11) "Ths grey ll an insect w 2 heads." (Inquiry) "It cb smthg fr the wilds of Brasil or S. America where thy hav all thos weird thgs, it has a head on each sid of ths long body, I'v nevrr seen anythg lik it befor." [INC2]

The Step 8 postulate suggested that his thinking seems disturbed and his reality testing is probably impaired. Actually, the conceptualizations in six of these answers (excluding the first Card X response), are strange, and lean toward bizarreness. However, he seems aware of this, and tries to justify the answers, "... I've never seen anything like it... no one has ever seen... creature from another world." Possibly the Card III answer is the most bizarre, but when the examiner presses him concerning the word "horrible," he backs away and refuses to articulate further. It is as if he realizes that his responses are strange and he works hard to defend himself against a more dramatic loss of contact with reality.

Case 11 Finding

This protocol contains six responses with critical special scores:

Card I (W) "To me ths ll a bf w frogs legs, I mean feet, I dk, it ll a bf w tiny lobster claws." (Inquiry) "Thes r the lobster claws (D1), the bf is spread out here, the wgs & contours, it's flyg." [E: I'm not sur wht mks it ll a bf] "I guess... uh... it ll wgs." [INC2]

Card I (W) "It ll a bat too, a blind one." (Inquiry) "Just the wgs, it re me of a blind bat, it's wgs, but

it doesn't hav a head so it ll it's flyg wo eyes, so it's blind, c (points to top) there's no head." [INC2]

Card I (W) "It also ll a cape, a fat wm standg in the wind w her hands ovr, I mean up in the air, wo a head, I mean decapitated." (Inquiry) "Here's the body, stout, not really fat, a small waist & big bust, a belt here & her legs & a collar, but no head. All ths (D2) is the cape flyg in the wind & thes r her hands (D1), the cape is all ragged at the edges, lik torn." [E: U mentiond she has a belt?] "The buckle is a liter color, c in the middl, c the drkr & liter." [INC2]

Card II (W) "Oh, it ll 2 littl lambs w their noses togtthr & thy ll thyv been slaughterd, it's disgusting how peopl can kill A's, it's not the whol body, j the head & shouldrs, its morbid." (Inquiry) "The ears, the top of the head, the noses r touchg, lik thyr laid out tht way, thyv been severely choppd, hackd, & ths red & pink & orange ll lots of bld runng all ovr the plac. Thy were really hackd, c the jaggd edges on the necks, not even a clean job." [DR]

Card VI (W) "An A thts layd out, just the fur aftr thyv skinnd it & stretchd it, thy lay it on poles or boards, if u com fr the country ud kno wht thy do, it's disgusting." (Inquiry) "It cb a racoon or some fuzzy A, thy stretch it & cut it in half, the legs, arms & feet & ths is the pole." [E: U said fuzzy A?] "A hairy A, c the texture of the ink spots, it looks sorta furry to me." [DR]

Card VIII (W) "Oh, a pelvis, u kno, ths ll the vagina, the rib cage, the pelvis & the lungs too." (Inquiry) "Ths is the shouldr prt (D4), here r the lungs (D5), smoke filld, blue, the ribs, the pelvis & the vagina, it goes dwn tht way, lik in med books, it ll tht." [E: U said the lungs r blue?] "Yeah, thyr blue, thy get lik tht fr smokg." [INC2]

The Step 8 postulate suggests the likelihood of disorganized and inconsistent thinking. Certainly, her thinking seems disjointed and somewhat illogical at times, and she becomes concrete rather easily. On the other hand, these are not delusional responses. Interestingly, five of the six also contain a MOR special score. Clearly, she has a problem with her thinking, but it is very likely that it is more specific than diffuse, and has to do with the body concern preoccupation noted from the mediation data, and the very pessimistic set identified at Step 4.

Step 10: M Form Quality

The human movement responses usually contain the most obvious representations of conceptual thinking, and the form quality of those answers serves as a useful source from which to evaluate the clarity of ideation. Optimally, all of the *M* responses will have an +, o, or u form quality, but when this is not true, it suggests that ideation may be clouded more often than expected, and may even indicate the possibility of peculiar or disturbed thinking. Usually, such indications coincide with the findings from Steps 8 and 9, but there are instances in which earlier findings may not detect some of the nuances of ideational difficulties that can be highlighted by the *M* form quality.

Potential Finding 1: When the *M* responses all have form quality codings of +, o, or u, the data have no interpretive usefulness. This is true for Case 11. Proceed to Step 11.

Potential Finding 2: Sometimes a single *M*– may appear in a protocol. If there are no *formless M* responses in the record, the one *M*– may represent some peculiarities in thinking that are created by a preoccupation that interferes with mediation or the clarity of thinking. In some cases, a single *M*– may represent a glimpse of ideational disarray, but when this is true, previous findings concerning the critical special scores are almost always significant.

Cases 9 and 10 Findings Positive

Each of these protocols contains a single *M*– response. Neither are unexpected in light of findings from Steps 8 and 9.

Potential Finding 3: Occasionally, a protocol will have no *M*– responses but will contain a *formless M*. *NoForm M*'s usually signify problems with ideational control that interfere with the clarity of thinking. Most *NoForm M* answers include an affective component such as sadness, rage, pain, ecstasy, love, and so on, but some have a more esoteric quality such as peace, creativeness, intelligence.

The former represent instances of lability in which feelings overwhelm thinking and lead to a detachment from reality. The latter appear to reflect instances in which ideation becomes fluid and internal preoccupations become superimposed on or replace reality. Both signify that the ability to control thinking is impaired; however, the more esoteric *formless M* answers probably include processes that are similar to those that give rise to hallucinatory experiences.

Potential Finding 4: When the combined value for *M*– and *NoForm M* is two or more, it is very likely that thinking is peculiar or disturbed. Although this may be the product of a semi-isolated preoccupation, it more likely represents a broader form of ideational disarray that will probably be confirmed by a significant elevation in the *WSum6*.

Step 11: The Quality of M Responses and Summarizing Findings about Ideation

As noted earlier, many responses in a protocol go beyond a simple report of how the blot has been translated and include aspects of conceptual thinking but, in many instances, the verbiage in a response will only hint at conceptualization. The most consistent and direct manifestations of conceptualization occur in the human movement responses and, because of this, they usually are the best source from which to subjectively evaluate the quality and clarity of thinking.

The frequency by which *M* responses occur in a record restricts the parameters on which to base this judgment. Many protocols, especially those of avoidant and/or extratensive persons, may contain only one or two *M* answers and many records of introverts might only include four, five, or six *M*'s. Nevertheless, even when the sample is small, the *M* responses should be reviewed because the review will sometimes broaden and/or clarify the previous findings about thinking.

Most *M* responses are appropriate for the blot area and the articulation of them is reasonably concise and "on target." The verbiage concerning them

is free of rambling and vacillation and contains no questionable logic. These are the commonplace *M* answers, and typically reflect clear thinking. When a common *M* is given, it usually will include some information about the quality of ideation by the manner in which it is developed and articulated. Many *M* answers, both the common and the atypical, can be rich with material about the quality of thought. Some are clearly more sophisticated whereas others reflect a more juvenile or even primitive form of conceptualization.

Potential Findings: In adult records, the conceptual quality of the movement answers is expected to be commonplace or even sophisticated. When this is true, it is a positive finding and mention of this should be included in the summary concerning ideation. If one or more of the *M* answers in the record of an adult or older adolescent has a more juvenile conceptualization, it can be postulated that the quality of the person's thinking tends to be less mature. This is an expected characteristic for the human movement responses given by children or younger adolescents, and if the *M* responses of a younger person contains none of these features, it can be postulated that the thinking of the youngster tends to be more mature than is common for his or her peers.

M responses that are characterized by primitive forms of conceptualization are not expected, except from children younger than age nine. Typically, an *M* that has primitive features will stand out in some way, and usually the verbiage associated with it will warrant one or more special scores. *M* responses containing primitive features indicate that the quality of thinking is very concrete and immature and, in the instance of an adult or older adolescent, may signify that thinking is being impaired by very intrusive preoccupations.

Case 9 *M* Responses

- IV (W) "I can't find anythg here . . . darn . . . well, thes thgs cb boots so the W thg cb a fig lying dwn on th grnd, it's perspective, it's

foreshortened." (Inquiry) "A human I guess, he has big feet so its prob a man. 1st I saw the boots, their shape, then thes ll legs, it's not really perspective, ur lookg fr the feet, it's lying dwn & its foreshortened. It re me of a man I saw in NY, drunk, lying dwn, passd out."

- VI (D3) "Oh, I just dkno, I supp the top prt cld ll a man's organ, his penis." (Inquiry) "It's not real, it's lik an artist's drawing. It's supp to b an erect penis I guess, it sorta has tht shape, I guess u cld c it lik tht, altho I'm thinkg tht the artist was kinda weird to draw it lik ths."
- VII (W) "Oh dear, wht in the world, smbdy lookg into a mirror & seeg her reflectn." (Inquiry) "Well thyr almost th same, ths one looks a littl more blurry, the drkness of it arnd th edges is more pronounced & the edges here r more precise, c ths wb the real one & ths (left) wb the mirror image."
- X (D11) "It ll 2 bugs holdg smthg up, c ths thg betwn thm." (Inquiry) "Well, thy hav antennae & thyr standg up on their back legs, thy ll beetles standg up on their bk legs holdg onto whtevr ths thg is."

Case 9 Summary

Most of her *M* responses are straightforward and detailed. She manifests some defensiveness in each, often by inserting some details that are not really appropriate for the situation. This is probably because she doesn't trust herself in complex situations. Nonetheless, none of the *M*'s reflect serious trouble and it is reasonable to suggest there are no serious problems with her thinking. She is probably rather inconsistent in her approach to decisions (Step 1), and her thinking seems to be intruded by peripheral ideation more often than is common, and this can cause some problems in attention and concentration (Step 5).

A greater problem seems to be the fact that she tends to rely rather extensively on fantasy to escape the harshness of reality and, in doing so, is prone to depend on others for reinforcement and the resolution of difficulties (Step 6). Her thinking sometimes becomes less clear or consistent than

preferable and, at times, her judgment becomes noticeably flawed (Steps 8 and 9).

Case 10 M Responses

- II (D2) "The top prt ll faces, u can c an eye there, sk of birds." (Inquiry) "The eye is here & the eyebrow here, it's lik thyr stickg their tongues out at eo, I dk wht thy r, j birds, thy hav a bird face, red birds, but I dkno wht kind."
- III (D1) "2 strang lookg thgs facg eo, seem to hav faces lik pigs & claws for hands." (Inquiry) "Thes wb the heads (points), thyr angular, & here r their bodies, their knees hav some horrible thgs tht com out, & thy hav boots on. Their legs & arms look sorta normal, human lik, but thy hav claw hands & it ll thyr holdg thes round thgs, lik a big ball, thy must repres ss of creature fr anothr world." [E: U said their knees hav horrible thgs?] "It's smthg tht just looks horrible."
- IV (W) "First of all it ll som huge creature as if u'r lookg at him frm below & his feet r gettg ready to stomp on st." (Inquiry) "Thes r feet, big feet, its a perspectiv, lik lookg frm below & he's ready to stomp st, u can't c his head vry well, there must b a tree behnd him, ths wb the trunk but u don't c the rest, these thgs out here r the pullg string for his black cape, he's wearg a black cape of ss."
- VI (D8) "Ths way the sam prt ll the crucifixion." (Inquiry) "Lik Christ on the cross w his pain radiating out for all to c." [E: I'm not sur I'm seeg it lik u r] "It comes dwn to here (all of D8), the hill, & his body (D6) & arms out here (top of Dd22) & the rest (Dd22) is his pain radiating outward."
- VII (D1) "2 girls w feathrs in their hair makg faces at eo." (Inquiry) "Here's the feathr, thy ll thy hav bangs, here r noses & here r mouths, their chins r juttg out lik makg a nasty face, it's j their heads, the rest doesn't count."
- VIII (Dd99) "Thes ll 2 littl boots, lik sombdy is standg behnd a curtain." (Inquiry) "Thes thgs here, lik boots or old fashion shoes, lik sombdy is behnd ths greyish green curtain & u can't c thm except for their feet, the curtain wb here (outlines)."

- IX (D11+DdS22) "Ths ll a strang creature w white & green eyes & a long nose lookg fr behnd a bush." (Inquiry) "Here wb the eyes, prt white & prt green & ths long nose, lik it's hangg ovr the bush & all of ths (D11) is the bush, it's nothg human, lik smthg fr anothr world tht nobody has evr seen."

Case 10 Summary

The responses containing his seven *M* determinants are relatively sophisticated. There is no evidence of immaturity or excessive concreteness, but his conceptualizations are, at best, unusual and often quite strange. Overall, his thinking is not very clear (Steps 8, 9, and 11), and it is likely that he is not very consistent in his approach to decision making (Step 1). Much of his thinking seems to be noticeably influenced by his hypervigilant style (Step 4) and, at times, this has a significant impact on his reality testing (Steps 8, 9, and 10).

There is reason to believe that, currently, his thinking is disrupted by peripheral mental activity evoked by situationally related stress (Step 5). However, it is very unlikely that this is causing the peculiarities that persist in much of his ideation. They are much more likely to reflect a chronic problem that, at least, borders on serious pathology. It is possible that he is aware of this, and probably invests considerable effort to avoid becoming more seriously detached from reality.

Case 11 M Responses

- I (W) "It also ll a cape, a fat wm standg in the wind w her hands ovr, I mean up in the air, wo a head, I mean decapitated." (Inquiry) "Here's the body, stout, not really fat, a small waist & big bust, a belt here & her legs & a collar, but no head. All ths (D2) is the cape flyg in the wind & thes r her hands (D1), the cape is all ragged at the edges, lik torn." [E: U mentiond she has a belt?] "The buckle is a liter color, c in the middl, c the drkr & liter."
- III (W) "Oh 2 ladies movg furniture, thy ll twins, thts all I c." (Inquiry) "Ths is the lady, c the hi heels, her twin is wearg the same outfit & thy'r movg a piece of furniture lik an ottoman

or st & all thes colors, the reds, r lik decora-
tions in the aptmnt or st up on the walls
behnd thm." [E: Behnd thm?] "Ths where
thy'd b, behnd thm."

VI (DI) "I c it also as Siamese twins, their
heads r here." (Inquiry) "Their mouths r
open, ths is a littl piece of hair on their
heads, thy'r both the same, connected at the
spine here, only one spine (points to mid-
line)."

VII (W) "I can't tell, it ll 2 Indians doing st, a
dance ths wht it ll." (Inquiry) "Thes r the
feathrs, their heads, nose, mouth, & their
hands r out lik ths. Ths is their body dwn
here. I dk where their feet r but it resembles
Indian or Hawaiian dancrs dancg w their
hnds out lik ths (gestures)."

Case 11 Summary

All four of her *M* answers are reasonably elaborate and she seems to work hard to make sure that her conceptualizations coincide with the realities of the stimulus field. Generally, she is the type of person who merges her emotions into her thinking and they are probably quite influential on her decisions. She likes to test out her ideas and relies considerably on external feedback (Step 1). This is not necessarily an inflexible approach and, at times, her decisions may evolve from very different tactics (Step 2). Unfortunately, she has a very pessimistic set involving self-doubt and the expectation of failure. This often intrudes into most of her cognitive activities and, undoubtedly, has a very substantial influence on her thinking (Step 4).

It seems clear that she is under considerable situationally related stress and feels rather helpless about it. This sense of helplessness often affects her thinking and can breed inconsistencies (Step 5). Currently, there is evidence that her thinking is often disorganized, inconsistent, and even disjointed (Step 8). This could be aggravated by the current stress, but her unusual body concerns, and her very pessimistic view of herself and the world are most likely the basic causes. Whatever the specific causal features,

her thinking is not very clear (Step 9) and many of her judgments suffer as a result.

INTEGRATING THE FINDINGS REGARDING COGNITIVE OPERATIONS

Although the data for each of the cognitive triad clusters have been reviewed separately, the findings become most meaningful when they are integrated. This is important because the findings from one cluster often may explain or add clarification to the findings from another cluster. For instance, disturbed thinking can often produce ineffective processing. Similarly, shoddy processing can often lead to faulty mediation and, of course, problems in mediation can easily create peculiarities in conceptualization. There are no direct one-to-one relationships between these cognitive operations that *always* hold true. It is for this reason that the interpreter should take some extra time to review the findings from each of the three clusters and organize them in the way that makes the most sense in the context of the person being evaluated and the issues that have been raised.

In many cases, cause-and-effect relationships among the three cognitive activities are readily detected. When the impact of strengths or weaknesses in one set of operations on the other operations is reasonably clear, that information aids the interpreter substantially in fleshing out a picture of the individual and addressing the various issues raised in the assessment referral. In some cases, however, the interpreter is confronted with a "chicken or egg" dilemma. The strengths and weaknesses concerning each of the cognitive activities may be clear, but the cause-and-effect relations are not, especially regarding weaknesses. Nevertheless, even when cause-and-effect relations are not clear, the integration of findings offers a more fully rounded understanding of cognitive assets and liabilities and their impact on the totality of functioning.

Integrative summaries for the cases used to study the three clusters in the cognitive triad

illustrate how a merging of findings broadens the understanding of the individual and sometimes highlights very important issues.

Case 9

Generally, the quality of her processing effort is usually adequate, but there are some aspects of the way in which she deals with new information that may be liabilities for her. First, she seems to be very cautious and overly economical about dealing with new information. This may reflect a lack of confidence, or may be a subtle refusal to become involved with new experiences. Regardless of the cause, she does not work very hard to process new information. Second, and more important, she is often hasty and negligent in her processing effort. This can pose a significant liability for her because it increases the likelihood that she may neglect cues that can be important to her decisions and behaviors.

Her cautious but lackadaisical approach to processing may have some relationship to a seemingly pervasive tendency to selectively distort reality. She does this most often because of emotional factors that relate rather directly to concerns that she has about her physical well-being. Indeed, there are times when this preoccupation, and the feelings that result from it, leads her into some noticeably serious distortions of reality. She is not seriously disturbed. On the contrary, she seems oriented toward being conventional and making acceptable responses or behaviors. However, the preoccupations that she has about her health and well-being often circumvent that orientation and cause her to perceive the world through a more personal, and not very realistic, set of psychological lens.

Usually, her thinking is clear, but she often seems less secure and more defensive about her ideation than need be the case. As a result, her thinking sometimes becomes a bit loose. This is probably because she doesn't trust herself in complex situations. Actually, she is probably inconsistent in the manner by which she forms and applies concepts. Sometimes she pushes feelings

aside and addresses issues thoughtfully. At other times, she relies heavily on her feelings in forming judgments and decisions. Neither approach is used consistently, even though situations may be similar. This lack of consistency is not efficient, and requires her to invest added effort to deal with the demands of everyday living. Although this is not necessarily a liability, her situation is made more complex by the fact that she has a lot going on in her life, and her various needs and concerns often make it difficult for her to maintain her focus of attention. When she experiences these pressures, she has a marked tendency to drift into fantasy as a way of escaping from the harshness of reality. As a result, she is prone to depend on others for the resolution of her problems. Her proclivity to bend or ignore reality sometimes causes her thinking to become less clear or consistent than might be preferred and, at times, leads to noticeable flaws in her judgment.

Case 10

This man has a firm notion that the environment is potentially threatening and believes that it is important to be prepared to contend with those threats. As a result, he is very guarded and tends to be mistrusting of others. This has an impact on all of his cognitive operations. It affects the manner by which he processes new information, translates that information, and conceptualizes it.

He is very conservative when confronted with new information, and his processing approach tends to be overly cautious. He works hard to organize information, but he often becomes too wrapped up in details. When scanning a new field, he tries to be very thorough and devotes considerable effort to the task. Such an approach can be an asset but, in this instance, his unusual focus on details frequently causes him to ignore the totality of a situation and process in a more inconsistent and sometimes fragmented manner. Actually, the quality of his processing is reasonably sophisticated but other factors, mainly the way in which he conceptualizes, tend to render the effort less effective.

In most instances, he translates new information appropriately, but not very conventionally. He does not misread or distort inputs, but he does not translate obvious cues in a very common way. It is as if he has a tendency to disregard social demands or expectations. When a person does this, it does not necessarily mean that their behaviors will be asocial or unacceptable, but it does indicate that their behaviors will not be very conventional. This seems to coincide with his history of interpersonal aloofness and his apparent disdain for others, and suggests that his system of values may vary considerably from those usually endorsed by the environment.

He is not very consistent in his approach to making decisions. Sometimes, he pushes his feelings aside and addresses issues very thoughtfully. In similar instances, his feelings merge with his thinking and become quite influential when forming new concepts or reaching decisions. This is not very efficient and, for most people, requires more effort than should be the case to achieve new solutions. Currently, he is probably even less efficient because he seems to be experiencing considerable mental activity that is being evoked by situationally related stress. However, even if the current stress did not exist, a much more substantial liability interferes with his overall effectiveness. It is the manner in which he conceptualizes new information. His thinking is not very clear, and overly influenced by his guarded and mistrusting view of the world. This has a significant impact on his reality testing and, at times, he seems to teeter on the brink of considerable detachment from reality. Ordinarily, his thinking is quite complex and can become rather sophisticated. However, his thinking also is frequently quite unusual. It can become very peculiar and marked by paranoid-like features. He seems to be aware of this, and apparently invests considerable effort to conceal or justify these characteristics, and to avoid becoming more seriously detached from reality. The overall cognitive picture reflects a chronic problem that, at least, borders on serious pathology.

Case 11

She strives, much more than most people, to make sure that new information is fully organized. She is very consistent in this effort but, sometimes, seems to try and accomplish more than is reasonable for her capabilities. The cause for this substantial effort is not clear, but it is likely that she does so to try and avoid making mistakes. Actually, the quality of her processing effort is quite adequate, although there is some evidence to suggest that it is probably quite difficult for her to maintain this high level of proficiency over a more sustained period of time.

Usually, she translates new information appropriately. In fact, she is very alert to obvious cues, and appears to work hard to make sure that her conceptualizations coincide with the realities of the situation, and that her behaviors are in accord with social demands or expectations. However, sometimes her emotions do interfere with her reality testing, causing her to lose focus and become noticeably detached from reality. This does not occur with any noticeable high frequency but it does pose a significant liability for her. This is because she relies heavily on her emotions whenever she is involved with decision making. She likes to intuitively test out her ideas, and counts on external feedback as an important source of direction for her thinking. This is not an inflexible approach and, at times, her decisions may evolve from very different tactics. Nonetheless, the potential clearly exists for her feelings to cause her to ignore or distort reality. This appears to be most likely when the emotions are related to body concerns, or when they involve some sort of sexual preoccupation. This is not unusual for someone with a lengthy history of alcohol abuse, especially if some neurological impairments have developed.

She has a much greater liability, which intrudes into most of her cognitive activities and has a very substantial influence on her thinking. It is a very pessimistic set involving self-doubt and the expectation of failure. This is a chronic and pervasive feature. Currently, it seems exacer-

bated by a marked sense of situationally related stress about which she feels very helpless. This sense of helplessness often interferes with her thinking and can breed inconsistencies. Currently, her thinking is often disorganized, inconsistent, and even disjointed. While the current stress may be contributing to this, her unusual body concerns and her very pessimistic view of herself and the world are probably the major causes. As a result, her thinking often loses clarity and many of her judgments suffer.

RESEARCH AND CONCEPTS REGARDING IDEATION VARIABLES

Thinking involves the meaningful organization of a series of symbols or concepts. It constitutes the core of psychological activity from which all decisions and deliberate behaviors evolve. Most all responses are, in some ways, illustrative of thinking (Rorschach, 1921). Rorschach postulated that the task itself requires conceptualization. However, he also became convinced, early in his investigation, that the manifestations of ideation differed considerably across responses, and was especially certain that *M* and chromatic color answers represented different sorts of psychological activity.

Rorschach formulated most of his postulates on data from 405 protocols, about two-thirds of which were taken from inpatients. He discussed *M* and chromatic color responses extensively in his monograph, emphasizing the importance of the relationship between them, and stressing that they are not antithetical. He hypothesized that *M* responses represent a component of intelligence, noting that they relate to the capacity for "inner creation," or "inner life," while chromatic color answers reflect "affectivity," or external interaction. He postulated that introversiveness and extratensiveness are matters of degree, that they are inherent, and are "primary qualities of the constitution." His findings led him to suggest that people prone to introversiveness are less vulnerable to unstable emotional reactions, but also are less adaptable to reality. He perceived extraten-

sive people to be more involved with the environment and, as such, tend to be more adaptable to reality. However, in putting forth these postulates, he went to great lengths to stress that the features of both the introversive and the extratensive exist within each individual to varying degrees.

The M Response

It was from that series of hypotheses regarding *M* and chromatic color answers that Rorschach formulated the *Erlebnistypus* concept, which has already been discussed in Chapter 16. In doing so, he also suggested that *M* answers are the most direct representations of thought (inner life). He based this conclusion on the notion that a creative effort is required to conceptualize movement in a static inkblot figure. His emphasis on *M*, as related to intelligence and ideation, gave rise to considerable research concerning *M* as the test developed. In fact, *M* has probably been the subject of more research than any other determinant. For instance, several studies report a positive relationship between *M* and intellectual operations. Most have involved the use of IQ or some other direct measure of intelligence and the frequency and/or quality of *M* responses (Paulsen, 1941; Abrams, 1955; Altus, 1958; Sommer & Sommer, 1958; Tanaka, 1958; Ogdon & Allee, 1959). Schulman (1953) reported that *M* is positively correlated with abstract thinking and has demonstrated that the activity requires some delaying operations. Levine, Glass, and Meltzoff (1957) have also demonstrated that *M* and the higher levels of intellectual operation require delaying activity. Mason and Exner (1984) failed to find significant correlations between *M* and any of the WAIS subtests for a group of 179 nonpatient adults, but Exner, Viglione, and Gillespie (1984) did find a significant positive correlation between *M* and *Zf*.

Kallstedt (1952) noted significantly fewer *M* in the protocols of adolescents than in those of adults. Ames, Metraux, and Walker (1971) and Exner and Weiner (1982) found the means for *M* to be significantly lower in young children as contrasted with

older children or adults. A gradual increase occurs in the mean for *M* at each year from age 5 through age 13. Ames (1960) has reported that the frequency of *M* responses tends to decline in the elderly, although that conclusion may be the result of overgeneralization. Some of the data collected at the Rorschach Research Foundation from elderly persons suggest that they should not be regarded as a single group, but should be subdivided with regard to their socioeconomic/health status. For instance, persons over the age of 65 who live independently, and report no major health problems, give records that are quite similar to younger nonpatients. On the other hand, individuals over the age of 65 who live in facilities designed to provide frequent health care have records that are somewhat more impoverished than younger nonpatients, and the average value for *EA* tends to be lower than the nonpatient sample.

M has frequently been identified as an index of creativity, but the empirical findings on this issue are equivocal. The different criteria that have been used for creativity appear to have clouded the problem considerably (Dana, 1968). Hersh (1962) found a significant relationship between *M* and artistic talent. Richter and Winter (1966) reported a positive relation between "intuition and perception" scores and *M*. Dudek (1968) found that persons giving a large number of *M*'s show greater ease in expressing themselves "creatively" in TAT stories and Lowenfield Mosaic Designs. However, by most other criteria, *M* and creativity appear unrelated.

The results of work concerning *M* and fantasy have been more definitive. Page (1957) reported a direct relationship between *M* and daydreaming. Loveland and Singer (1959), Palmer (1963), and Lerner (1966) have noted that increased *M* is related to sleep and/or dream deprivation. Orlinski (1966) has also shown a significant relation between *M*, dream recall, and total dream time. Dana (1968) has also demonstrated a positive relation between *M* and fantasy. He suggests that *M* answers can represent any, or all, of six different psychologic actions, including fantasy, time sense, intellect, creativeness, delay, and some aspects of

interpersonal relations. Cocking, Dana, and Dana (1969) reported findings that appear to confirm the relationship between *M* and fantasy, time estimation, and intellect.

The relationship between *M* and motor inhibition has been the subject of numerous investigations, mainly because Rorschach (1921) postulated the occurrence of kinesthetic activity when *M* answers are formed. Singer, Meltzoff, and Goldman (1952) found that *M* increased after subjects were instructed to "freeze" in awkward positions. Similarly, an increased *M* was noted after an enforced period of delay (Singer & Herman, 1954; Singer & Spohn, 1954). Bendick and Klopfer (1964) report a significant increase in both *M* and *FM* answers under conditions of motor inhibition, and significant increases in *M*, *FM*, and *m* under conditions of experimentally induced sensory deprivation. In an earlier work, Klein and Schlesinger (1951) presented data to suggest that a relationship may exist between motor inhibition and a variety of Rorschach responses, including movement answers.

Steele and Kahn (1969) failed to find significant increases in muscle potential with the production of movement answers. However, they noted a tendency of individuals who produced many *M*'s to show increases in muscle potential. Possibly of greater interest is the fact that increases in muscle potential were noted accompanying almost all aggressive content answers, regardless of whether movement was involved. Motor expression has also been noted as precipitating an increase in the frequency of movement answers by Cooper and Caston (1970). They used two sets of Holtzman Ink Blots given before and after a five-minute period of physical exercise. In general, the issue of kinesthetic activity in movement answers is, at best, only an indirect approach to the study of the psychological activity associated with their formulation, and the contribution of these works to interpretation of *M* answers is still an open issue. Possibly, studies concerning the relationship between *M* and the delay of behavior have a more direct relevance to the interpretation of this kind of response.

Frankle (1953) and Mirin (1955) both demonstrated that persons with greater numbers of *M* tend to have longer motor delays in their social adjustments. Beri and Blacker (1956) found that mean reaction times to the blots are significantly longer for introverts. Levine and Spivack (1962) report a significant correlation between the productivity of *M* and an independent index of repression. Earlier, Hertzman, Orlansky, and Seitz (1944) noted that high *M* producers showed a greater tolerance for anoxia due to simulated high altitude conditions (18,500 feet) than did individuals giving low frequencies of *M*.

Collectively, the studies about *M* generally support the notion that there do appear to be some psychological elements that are common to the formation of all *M* responses. The most obvious of these is that the formation of a movement answer must include features that are mentally created by the person and attributed to the stimulus field. However, any attempt to summarize the full psychological meaning of *M* responses will probably fall short of describing the extremely complex activities to which they relate. Clearly, they involve the elements of reasoning, imagination, and a higher form of conceptualization. They are also contingent on a form of delay from yielding to more spontaneous translations of a stimulus field, during which time an active and deliberate form of ideation occurs. This deliberate directing of one's inner life breeds images and/or fantasies that become the basis of decision making concerning the formation of responses to a given constellation of distal features in a field.

Unfortunately, many investigations about *M* have neglected some, or all of the potentially confounding problems that can occur when a single variable is studied by itself. For instance, it is very obvious that the elements which contribute to the formation of *M* answers tend to vary from one person to another. Rorschach emphasized this in discussing his findings about the *EB*. Thus, some studies in which all *M*'s are ordered into a single category may have yielded conclusions that are erroneous or, at least, overly generalized. This is especially possible when investigators

have focused their attention on *M*, and neglected the issue of the *EB*, and the question of whether a subdivision of subjects by *EB* would yield findings that are consistent or inconsistent for a total group.

The *EB* is not the only factor relevant to the study of *M*. Some *M*'s involve real figures while others specify unreal figures. Some *M*'s concern single figures and others involve multiple figures. *M*'s can be subdivided as aggressive, cooperative, active, or passive, and also whether they are given to a small *Dd* area rather than to a *W* or *D*. For example, Piotrowski (1957) and Exner (1974) have demonstrated that differences in the characteristics of *M* do relate to differences in behavioral and interpersonal effectiveness. People who give more cooperative *M*'s are generally oriented toward more socially effective behaviors. People who give significantly large numbers of passive *M* are more prone to avoid decision responsibility, and prefer to be more dependent on others for direction. Exner (1983) found that individuals with high frequencies of aggressive *M* answers show higher frequencies of verbal and nonverbal assertive and aggressive behaviors, and are also prone to view interpersonal relationships as being commonly marked by aggressiveness. Witkin, Dyk, Fatterson, Goodenough, and Karp (1962) found a high positive correlation between assertive *M*'s and Field Independence. Wagner and Hoover (1971, 1972) report that drama students, drum majorettes, and cheerleaders tend to give more "exhibitionistic" *M* responses. Likewise, Young and Wagner (1993) found that women working as stripteasers produced significantly more active exhibitionistic movement answers, while women working as models produced significantly more passive exhibitionistic movement answers. Findings such as these emphasize the need for caution in generalizing results of studies in which all *M* responses are treated in the same way.

Some of the data concerning the interpretation of *M* are derived from studies of various psychopathological groups. Guirdham (1936) noted that depressives tend to give lower frequencies of *M*, while Schmidt and Fonda (1954) reported a

high occurrence of *M* among manic patients. Brain-injured persons have been noted to give fewer *M*'s in their records (Piotrowski, 1937, 1940; Evans & Mormorston, 1964). Gibby, Stotsky, Harrington, and Thomas (1955) and H. Thomas (1955) found that hallucinatory patients give significantly more *M* than do delusional patients who do not hallucinate. King (1960) reported that paranoid schizophrenics who have interpersonal delusions produce significantly more *M* than do paranoid schizophrenics with somatic delusions.

Rorschach (1921) noted that when the form quality of *M* is poor, the likelihood of psychopathology appears to be greater. That postulate has been supported by many findings (Beck, 1945, 1965; Rapaport, Gill, & Schafer, 1946; Phillips & Smith, 1953; Molish, 1955; Weiner, 1966; Exner, 1974, 1978, 1993). Weiner suggested that the *M*-response is probably related to deficient social skills and poor interpersonal relationships. Exner (1978, 1991) included the *M*-answer as one of the critical criteria in developing the original and revised Schizophrenia Indices. Silberg and Armstrong (1992) found that more than one *M*-answer loaded positively into an experimental index to identify suicidality among adolescents.

The presence of good quality *M*'s has been regarded as a positive prognostic indicator, especially for the seriously disturbed person. This factor is weighted heavily in both the Rorschach Prognostic Rating Scale (Klopfer, Kirkner, Wisham, & Baker, 1951) and the Piotrowski Prognostic Index (Piotrowski & Bricklin, 1958, 1961). Rees and Jones (1951) and Lipton, Tamarin, and Latesta (1951) report that good quality *M*'s significantly differentiate schizophrenics who respond favorably to somatic treatments. Piotrowski (1939), Halpern (1940), and Stotsky (1952) have all reported significant increases in the frequency of *M* among patients who show improvement versus those who do not. Exner (1974) compared the admission and discharge records of 71 schizophrenics followed in a relapse study, and did not find a significant in-

crease in *M* in the second test, but 19 of the 71 patients who relapsed during the first year after discharge did have significantly fewer *M*'s in both of their tests as compared with the records of the 52 nonrelapsers.

The *EB* and Ideation

Although *M* does appear to be one of the most direct representations of thinking in the Rorschach, its presence or frequency cannot be interpreted accurately unless done so in the framework of other variables, especially the *EB*. Almost all persons, even children, have some *M* in their records, but the actual frequency means very little unless cast in the proper framework. For instance, the introversive person with a record containing five *M* responses will be prone to use delaying tactics more frequently when making decisions than will the extratensive individual who also has five *M*'s in his or her record. The *EB* provides the cornerstone from which to understand the relationship of *M* answers to the characteristics of thinking. If the *EB* reveals an introversive style, it suggests a person who prefers to delay until all apparent alternatives have been considered, and who prefers logic systems that are precise and uncomplicated. If an extratensive style is revealed, it indicates that the person merges feelings with thinking much of the time, and more complex patterns of thinking may occur that often give rise to trial-and-error behaviors. If the *EB* does not indicate a style (ambitent), it signifies a potential for inconsistency in decision making, a tendency to reverse decisions, and a vulnerability to errors in judgment.

Interpretations regarding thinking in the context of styles cannot be overemphasized. As noted in Chapter 16, introversives and extratensives approach problem solving quite differently. Extratensives make many more operations even though their times to decisions or solutions are not significantly different from introversives. They are trial-and-error oriented, and willing to make errors as a trade-off for the information they receive. Logically, it appears that extratensives are

more prone to affectively weigh interactions with the world, and those interactions become a source of information and gratification.

To illustrate, Exner and Thomas (1982) videotaped structured seven-minute interviews of 15 extratensive and 15 introversive nonpatient college students who were volunteers participating in another study. The interviews were all conducted by the same person, and followed a questionnaire format concerning attitudes about academic requirements. The tapes, replayed without sound, were rated for postural-gestural behaviors, such as leaning forward, chair turning, arm movements, hand gestures, and such, by three raters who had no familiarity with the nature of the study. The mean rating for the extratensives was 15.64 ($SD=4.61$) versus a mean of 8.22 ($SD=4.07$) for the introversive group.

The *EBPer*

The *EBPer* was developed to flag instances in which the introversive or extratensive styles appear to be quite dominant in decision-making and/or coping activity. When positive, it suggests that the style tends to manifest in almost all problem-solving or coping activity, even though the particular stylistic approach may be less efficient, or even inappropriate for the specific situation. Pervasive styles reduce the person's flexibility, and can limit the extent to which the individual can adapt to new demand situations easily. Even though this was suggested by Rorschach (1921), the issue of heterogeneity or pervasiveness within styles has received limited scrutiny. As a result, most interpretations of the *EB* have tended to assume that the overall approach to problem solving is similar and relatively consistent within each style, and that variations within a style will be produced by other psychological features.

For instance, it has been demonstrated that marked differences may exist within either style for tasks requiring greater persistence (Piotrowski, 1957; Exner, 1974; Wiener-Levy & Exner, 1981)

but, generally, those differences have been attributed to D score differences and to the magnitude of *EA*. The type and quality of *M* responses and chromatic color answers, has also been correlated with measures of effectiveness and characteristics of a style. Persons who give an above average number of "cooperative *M*'s" are generally more oriented toward socially effective behaviors (Piotrowski, 1957; Exner, 1988), and a positive relationship exists between assertive *M*'s and the tendency to be field independent (Witkin et al., 1962). It has also been noted that, while introversives tend to be ideational in their coping activities, the manifestations of the style will be notably different for the introversive with a higher *es* and *M*'s that are predominantly aggressive, as contrasted with the introversive with a higher *EA* and *M*'s that are predominantly cooperative (Exner, 1993). The behavioral variability among extratensives is probably greater than that for introversives. The extratensive whose record consists mainly of *CF* and *C* responses will probably differ considerably in coping activity from the extratensive whose record is marked by a predominance of *FC* responses. Again, the presence of a higher *EA* or higher *es* will contribute significantly to the manifestations of the coping activity, as will many other personality features.

The accumulated findings regarding differences within styles tend to support the theoretical formulation of Singer and Brown (1977) about the *EB*. They speculated that the two basic dimensions of the *EB*, introversive and extratensive, may be constitutionally predetermined, but they also pointed to many findings from developmental psychology to emphasize how these styles may be reinforced or inhibited in their "natural" development. They suggested that a revised *EB*, derived from more precisely defined criteria than the crude and simple ratio devised by Rorschach, could yield much information concerning the patterns of fantasy, affectivity, motility, and of the spontaneity potential in the ideation and affect of the individual. Some support for this notion was noted from a reexamination of data from a problem-solving study

(Exner, 1978), described briefly in Chapter 16, in which the Logical Analysis Device was used.

The basic study involved three groups of 15 persons each, drawn from a college population, and selected on the basis of the *EB*, the *AdjD* Scores that all were 0 or +1, and SAT Verbal Scores, that were between 575 and 600. The extroverted group was defined as *WSumC* exceeding *M* by 3.0 or more. The introverted group was defined as *M* exceeding *WSumC* by at least 3.0, and the ambivalent group was defined as *WSumC* being within 0.5 points of *M*. The *Logical Analysis Device* (LAD) is a hardware apparatus (Langmuir, 1958) in which the subject is provided with a display panel containing nine indicator lights arranged in a circle, 6.5 inches in diameter. Each of the nine lights is controlled manually through the use of an adjacent push button switch. A tenth light, the target light, is located in the center of the circle. It has no switch. Information about the relationships among the various lights is provided by an arrow diagram plate that is placed within the circle of the nine lights (see Figure 19.1). Each arrow indicates a relationship, either between the lights on the circle, or between any of

those lights and the target light. The only information that the subject does not have is the nature of the relationship between lights.

Any of three kinds of relationships may exist between lights: (1) an effector relation (one light being activated will cause another light to activate), (2) a preventer relation (if one light is on, a second is prohibited from lighting), and (3) a combiner relation (the combination of two lights, activated simultaneously, will act either as an effector or preventer for a third light). The object of the task is to light the center light, using only operations created by the switches for the three lower peripheral lights. Before the first problem, the subject is taught the rules of solution by demonstration, explanation, and practice. The subject may ask questions, take notes, and repeat practice operations. The task of finding the correct combination of operations, using only the three lower push button switches, is one of logical analysis. The solution is developed by trial and error, with each trial representing an exploratory question concerning various relationships. Ultimately, the subject must synthesize the information developed from the exploratory operations to be able to cause the target light to be turned on.

The problems vary in complexity. Some may contain as few as 15 or 20 information-yielding operations, while others may have as many as 50 operations that can yield relevant information. Needless operations are gradually eliminated by logical deduction. Although the procedure is demonstrated and explained during the pretest instruction period, each person must ultimately decide how many operations to explore, and in what sequence, before a final solution is attempted. Operations are electronically recorded, providing data regarding (1) total number of operations to solution, (2) total number of extraneous or irrelevant operations, and (3) total number of repeated operations. The latter can be subdivided into repeated relevant and repeated extraneous operations. The time between operations, and total time spent solving the problem, are also recorded.

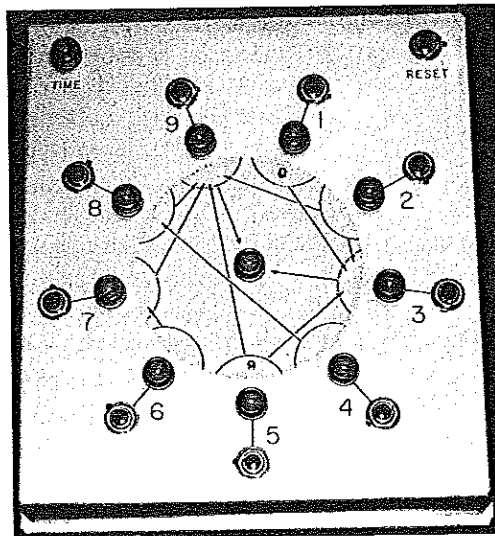


Figure 19.1 Logical analysis device subject display panel.

People vary enormously in their approach to the LAD problems. Some work in an overly systematic manner, exploring the functions for each of the nine peripheral lights, even though some are obviously irrelevant to the task. Others tend to repeat, or "verify," information over and over. Still others move almost immediately to the switches controlling the three lower lights that must ultimately be used in the final solution. This latter group, which Langmuir labeled as "organ grinders," typically has the most difficulty because they seldom pause to contemplate the results of their actions, nor do they usually alter their approach in favor of the more elementary analytic procedure provided in the initial instructions. Data accumulated for a reasonably large number of subjects suggests that problem-solving approaches can be defined along a broad continuum of efficiency that ranges from the hyperactively haphazard, crude, and redundant to the deliberately systematic, flexible, and sophisticated.

In the study briefly described in Chapter 16, the 45 subjects were asked to solve four problems of increasing difficulty, with time limits of 10, 15, 20, and 30 minutes, respectively. Two examiners were assigned randomly across subjects. Neither was aware of the basis on which the subjects had been selected. Subjects were not aware of time limits and were encouraged to continue working on the problem for as long as they desired, but the data analyses were restricted to operations performed within the time limits for the respective problems. All 45 subjects completed Problems 1 and 2 within the time limits. Problem 3 was completed within the time limit by 13 extratensives, 12 introversives, and 12 ambitents. Problem 4 was completed within the time limit by 12 extratensives, 12 introversives and 11 ambitents.

In the original analyses, the data for each problem were addressed separately, using a 3×3 ANOVA, with total operations, total errors, and average time between operations as the dependent measures. Separate analyses were performed for repeated operations, repeated errors, and total av-

erage time to completion for those finishing within the time limits. The results indicate introversives used substantially fewer operations to achieve the goal, whereas the extratensive group explored many more possibilities, often needlessly, and often with much greater replication of operations and errors, even though taking slightly less time to achieve the goal. The introversives were slower, but more systematic in their decisions, and the accuracy of their decisions compensates for the slowness of operation. The extratensives were more "doer" oriented in problem solving, more willing to make mistakes but they apparently profit from those mistakes so that their solution times are generally a bit shorter than the more reflective introversives. The ambitents were clearly less efficient when compared to either of the other groups. They used more time to solution, repeated more operations, and repeated more errors than either of the other groups. In the last two problems, ambitents repeated almost twice as many errors as the extratensives, and nearly three times as many as the introversives.

A reexamination of these findings (Exner, 1990, 1991) suggested that less homogeneity exists within the introversive and extratensive styles than might appear to be the case at first glance. As noted above, the introversive and extratensive groups were difficult to discriminate in terms of efficiency when time to solution is used as the criterion. However, that implication became challenged when the results for Problems 3 and 4 were studied separately. In the original analysis, time to solution was calculated for those two problems *only* for subjects completing the task within the allowed time limits of 20 and 30 minutes, respectively.

When the two groups were subdivided, using completion within the time limit as the basis for the subdivision, some of the results appear to be rather striking. Twelve introversives and 13 extratensives completed Problem 3 within the time limit, and 12 subjects from each of those groups completed Problem 4 within the time limit. The five persons who failed to complete

Problem 3 within the time limit also failed to complete Problem 4 within the time limit, but all continued working until a correct solution was reached on each problem. Although the size of the noncompleting samples is too small to attempt any statistical comparisons, the data do appear to highlight some characteristics that tend to differentiate the pervasive and nonpervasive styles, as the data for the noncompleters are substantially different than for the completers in each group.

For instance, the noncompleter introversives had substantially fewer total operations and much longer times between operations than the completer introversives for each problem. Likewise, the noncompleter extratensives had substantially more total operations and less time between operations than the completer extratensives. In effect, the noncompleters in each group are *outliers* whose scores for Problems 3 and 4 tended to make the differences between the two groups appear more notable. In other words, while the differences between the two completer groups still seem obvious, they are less substantial and, in several instances, such as time between operations or repeated operations, the differences are not significant.

These findings stimulated a review of other characteristics of the six Problem 4 noncompleters. All had SAT verbal scores within a 15 point range, and all had *D* Scores and *AdjD* Scores of 0. None had *X+%*'s lower than 72% or higher than 86%. All had *FC:CF+C* ratios which contained more *FC*, none had *Pure C* responses, and none had *Zd* scores of less than 0.5. The one common Rorschach feature was that all had *EB*'s in which the higher number was at least three times greater than the lower number and, in three cases, the higher number was four or more times greater than the lower number. Conversely, a review of the *EB*'s for the 24 Problem 4 completers revealed that only two persons had *EB*'s in which the higher value was at least three times greater than the lower value.

The finding regarding the noticeable difference between the values for *M* and *SumC* among the noncompleters led to the postulate that as the

magnitude of the difference between the values in the *EB* increases the basic characteristics of the style become more dominating or consistent and, as such, tends to inhibit flexibility in the application of the style. This tends to be consistent with Rorschach's 1921 postulate. A posthoc test of this hypothesis was organized by culling through more than 325 Rorschach protocols of persons who had completed the same sequence of the four LAD problems, or a parallel series that has the same difficulty level, the same time limits, and the same number of information yielding operations. Those subjects completed LAD problems while participating in various projects at the Rorschach Research Foundation during the period from 1974 to 1982. The objective was to create four groups, two introversive and two extratensive, differentiated by the *EB*, and among which differences in demography and other major Rorschach variables would be minimal.

The sorting process yielded four groups of 13 subjects each. The classification criterion for assignment to the target groups (pervasive introversive or pervasive extratensive) was that the higher value in the *EB* be at least 2.5 times that of the lower value. The criterion for the control group assignment was that the higher *EB* value be less than 2.5 times that of the lower value. The subjects ranged in age from 19 to 34 with an average for each group of between 22 and 24 years. Four persons from each group had been outpatients when they were tested. The remaining 36 were nonpatients who participated in the standardization sample or served as controls in psychiatric studies. All had completed at least 13 years of education and the average for each group ranged between 13.6 years and 14.7 years. All had Rorschachs in which the *D* Score and *AdjD* Score were 0 or +1, and had *X+%*'s between 73% and 86%. All had at least six Popular answers, had *FC:CF+C* ratios containing as much or more *FC*, and had no *Pure C*'s. All gave records containing at least 10 *Zf*, and had *Zd* values no lower than -1.5. Table 19.1 shows the performance data for each group through the four problems.

Table 19.1 Means for Six Variables in Four Logical Analysis Device Problems for Introverts and Extratensives Subdivided on the Basis of *M:WSUMC* Difference.

	Introverts		Extratensives	
	Pervasive <i>N</i> = 13 M	Control <i>N</i> = 13 M	Pervasive <i>N</i> = 13 M	Control <i>N</i> = 13 M
Problem 1 (10'')				
Operations	10.1	11.3	17.7 ^b	16.8 ^b
Errors	2.8	3.6	6.4 ^b	5.6 ^a
Time Betw Op's	20.9	20.2	13.2 ^b	13.3 ^b
Repeat Op's	2.6	2.8	5.7 ^b	5.4 ^a
Repeat Errors	1.5	1.9	2.1	3.0
Solution Time	231.6	222.4	213.9	217.5
Problem 2 (15'')				
Operations	19.4	20.7	31.8 ^b	29.9 ^b
Errors	4.6	5.4	12.7 ^b	12.2 ^b
Time Betw Op's	23.3	21.7	12.2 ^b	14.1 ^b
Repeat Op's	3.9	4.4	9.1 ^b	7.0
Repeat Errors	1.9	1.8	5.8 ^b	4.1
Solution Time	441.6	419.9	414.5	421.2
Problem 3 (20'')				
Operations	36.8	45.1	64.6 ^a	55.9 ^a
Errors	10.3	13.8	27.9 ^b	19.7 ^c
Time betw Op's	29.7	23.6	12.3 ^b	18.4 ^c
Repeat Op's	5.8	7.1	11.4 ^a	7.7
Repeat Errors	3.6	4.7	8.1 ^a	6.1
Solution Time	1126.6	1001.9 ^a	981.2 ^a	963.3 ^a
Problem 4 (30'')				
Operations	42.1	54.3 ^a	77.7 ^b	61.0 ^c
Errors	9.3	16.2 ^a	31.2 ^b	21.1 ^c
Time betw Op's	24.8	17.6	12.3 ^a	15.6
Repeat Op's	10.8	14.3	19.5 ^a	15.1
Repeat Errors	4.6	4.3	7.1	5.4
Solution Time	1254.6	952.7 ^c	1049.8 ^a	927.4 ^c

^a = different from pervasive introvertive group, $p < .01$.

^b = different from both introvertive groups, $p < .02$.

^c = different from both pervasive groups, $p < .02$.

The results afford some support for the hypothesis that the features of the introvertive and extratensive coping styles are more dominant and less flexible when the greater *EB* value is at least 2.5 times larger than the lesser value. In Problems 1 and 2, which are relatively easy and solved by most subjects within the time limits, the data for the introvertive groups are very similar, as are the data for the extratensive groups. As expected, both extratensive groups used significantly more operations, made more errors, tended to repeat more operations, and had significantly shorter

intervals between operations than the introvertives. The pattern of differences shifts considerably for the last two problems.

Problem 3 is much more difficult because it involves more complex combiner relationships. In Problem 3, both extratensive groups used significantly more operations than the pervasive introvertive group, but not the control introvertive group. There are *no* significant differences between the control introvertives and either of the extratensive groups. Conversely, the pervasive extratensive group differed from the pervasive

introversive group for all six variables, and made more errors and had shorter intervals between operations than the control extratensive group. The pervasive introversive group averaged significantly more time to solve the problem than any of the other three groups. Problem 4 is more complex than Problem 3. As with Problem 3, there are no significant differences between the introversive and extratensive control groups, but both differ substantially from the two pervasive groups. Actually, the performance of the extratensive control group is more like that of the introversive control group than the pervasive extratensive group.

An examination of the trends within groups across all four problems seems to indicate that the two control groups profited more from the problem-solving experience, or at least tended to modify their problem-solving approaches more. The control introversives began using more operations, made more errors, had shorter intervals between operations, and achieved solution in nearly the same amount of time as the control extratensives. Likewise, the control extratensives began using fewer operations, made fewer errors, lengthened the time intervals between operations, and had the lowest average time to solution for the last two problems. In other words, those in the control groups appear to show greater flexibility by adopting some of the problem-solving features of the opposite style and in doing so, enhanced their performance. Those in the pervasive groups did not appear to do this. Their approach to each problem was consistent with their approach to the preceding problem. In this instance, that lack of flexibility reduced efficiency.

These findings raised questions concerning the pervasive style and prompted a review of data for various groups. When the *EBPer* cutoff of 2.5 is applied, 111 of 426 (26%) introversive and extratensive nonpatient adults have a pervasive style. The proportions are considerably higher among psychiatric groups. Among 535 outpatient, 224 have either introversive or extratensive styles, and 158 (71%) are pervasive. Among 193 first admission inpatient affective disorders, 89 are

either introversive or extratensive, and 89 (63%) are pervasive. In a group of 200 first admission schizophrenics, 162 are either introversive or extratensive (142 are introversive), and 106 (65%) have pervasive styles.

It is impractical to conclude without question that a pervasive style contributes significantly to adjustment problems, but the issue is compelling. Exner (1993) reported findings for two studies, indirectly related to this issue. This first involved follow up data for 261 first admission patients, most of whom had been admitted for affect-related problems, and none of whom were schizophrenic. Persons with pervasive styles tended to have slightly longer periods of hospitalization, but there were no differences between pervasives and controls for entry into outpatient care or for relapse rates. The second study concerned therapist evaluations of 239 outpatients, being treated for the first time for a mixture of complaints or problems. Therapist ratings, taken during the first and second months of treatment, yielded more negative ratings for persons with a pervasive style, and almost twice as many persons that were introversive or extratensive, but *not* pervasive, terminated successfully within one year than did persons who were pervasively introversive or extratensive.

The *a:p* Ratio

Sometimes, the *a:p* ratio provides useful information about ideational activity. Rorschach (1921) postulated that differences in the type of movement answers could be used to discriminate features of personality. He described them as being marked by *flexion* or *extension*, the former being defined as those in which the action is toward the center of the blot, the latter for those in which the action pulled away from the center axis of the blot. He argued that extensor movement answers reflect assertiveness, whereas flexor answers indicate submissiveness of compliance. Hammer and Jacks (1955) found that aggressive sex offenders give significantly more extensor *M*'s, whereas

the more passive offenders, such as exhibitionists, tend to give more flexor *M*'s. Mirin (1955) found that schizophrenics giving predominately extensor *M*'s were resistive to contradictions in a memory task, whereas those giving more flexor *M*'s were more willing to give in to the contradictions. Wetherhorn (1956) used a special series of blots designed to provoke more movement answers and found no relationships between the extensor-flexor *M*'s and measures of ascendancy-submissiveness, or masculinity-femininity.

Both Beck, Beck, Levitt, and Molish (1961) and Piotrowski (1960) warned about the limitations of approaching movement answers using Rorschach's flexor-extensor concept. Beck pointed out that many movement answers do not meet either of those criteria, because they are "static," such as a person standing, or sleeping, or looking. Piotrowski classified *M*'s as favorable versus unfavorable using features such as cooperativeness, lack of restraint, confident postures, and such, and was able to differentiate effective and nonadaptive parole conduct of released army prisoners. He also evaluated successful and unsuccessful business executives and found that the successful group gave more self-assertive and confident *M* answers. Exner (1974) found that first admission acute schizophrenics and forensic subjects gave significantly more hostile *M* and *FM* answers than other psychiatric groups, or nonpatients. He also found that when all movement answers were coded as active or passive, following a suggestion by Piotrowski, active movement responses occurred significantly more in the records of the acute schizophrenics, subjects with a history of assaultiveness (regardless of diagnosis), and a group of character disorders, whereas passive movement answers occurred more frequently in the records of long-term inpatient schizophrenics and depressives. The reliability correlations for active and passive movement are generally quite high for both brief and lengthy intervals. They range from the mid .80's to low .90's for active movement, and from the upper .70's to mid .80's for passive movement.

Piotrowski's work (1957, 1960) regarding movement answers indicated that consistency (lack of flexibility) in thinking or inner experience is common among people experiencing difficulties in adjustment. He differentiated movement answers as active or passive, and suggested that when one type is markedly dominant in a protocol, the ideational sets that the individual has formed are more difficult to interrupt or alter. Results of four studies indirectly support this postulate. Exner (1974) noted that significantly larger proportional difference scores between *a* and *p* existed among unimproved as contrasted with improved outpatients. Exner and Wylie (1974) asked 15 dynamically oriented therapists to rate patient responsiveness for two treatment sessions that occurred during the first eight visits. The therapist ratings were substantially higher for those whose pretreatment records had proportional values in the *a:p* ratio that were less than 3:1 (regardless of direction) than those whose pretreatment records had *a:p* proportions of more than 3:1.

Exner and Bryant (1974) divided 30 high school juniors and seniors into two groups of 15 each. Persons in one group all had values of five or more on one side of the *a:p* ratio, and zero in the other side. Persons in the second group all had *a:p* ratios in which the value on one side exceeded the other by two or less. All 30 persons were convened in a classroom and presented with a slide on which eight items were shown. The items included a key, a toothpick, a golf tee, a paper clip, a pencil, a small cork, a piece of string, and a 3" × 1" piece of wood. The students were asked to write as many uses as they could formulate for each of eight items, considered separately *or* in combinations. The groups did not differ for the number of uses for the items considered separately, but the group with *a:p* values close together recorded more than twice as many uses for the items taken in various combinations.

Exner (1974) paid 34 women to induce a 10-minute period of daydreaming on each of 25 consecutive days, and to record those daydreams in a diary. The activity of the central figure in the

daydream was scored as being active or passive, and for whether a shift from one characteristic to the other occurred. Those scores were then compared with the data from the $a:p$ ratios in the Rorschachs of the women that had been taken prior to the onset of the study. Twenty of the 34 women had $a:p$ ratios in which one value was more than three times that of the other, and 14 had $a:p$ ratios in which neither value was more than twice the other.

The results showed that persons who give a large majority of movement responses in a single direction also have the majority of daydream scores in the same direction, and have relatively few shifts in the activity of the central figure of the daydream. For instance, if the person gave substantially more active movement answers, the central figure in the daydream tended to be active, and the outcome was usually the result of the action of the central figure. Conversely, if the person gave substantially more passive movement answers, the central figure in the daydream usually was described in a passive role, and the outcome of the daydream was typically attributed to the actions of others. The women who had less discrepant values for active and passive movement answers tended to report daydreams in which an almost equal mixture of active and passive characteristics were assigned to the central figure, and showed shifts from one characteristic to the other in a significant number of their daydreams.

THE $M^a:M^p$ Ratio

The findings concerning the $a:p$ ratio suggested that a closer examination of the $M^a:M^p$ ratio might also reveal useful data concerning some ideational characteristics. A review of the daydream ratings collected from the 34 women described in the study above, showed that 27 of the women had produced between three and nine of their 25 daydreams that were rated as passive. The remaining seven women each produced at least 15 passive daydreams (range = 15 to 19), for

a total of 123. Only 11 of the 123 passive daydreams given by those seven women contained shifts in the role of the central character, that is, moving from a passive to active role or vice versa. Four of the seven women had $a:p$ ratios in which p exceeded a , but all seven had $M^a:M^p$ ratios in which the value for passive M was greater than active M . Only one of the records from the remaining 27 women contained more passive M than active M .

Exner, Armbruster, and Wylie (1976) recruited 24 nonpatient adults who had been administered Rorschachs as part of the nonpatient study. Each had given at least six M responses, and 12 had given more M^a than M^p , whereas the remaining 12 had given more M^p than M^a . They were asked to write endings for each of six TAT stories that had been created to present dilemma situations. For example, the figure in Card 3BM was featured as having lost a job, the boy in 13B was described as having wandered away from a picnic and was lost, and so on. The story endings were scored for (1) positive or negative outcome, (2) outcomes involving new people injected into the story, and (3) outcomes initiated by the central figure of the story versus those contingent on the actions of someone else. The overwhelming majority of the outcomes were positive (88%) and did not differentiate the two groups. The 12 subjects with higher M^p added new people to 38 of the 72 endings (53%), whereas the higher M^a subjects added new people to only 17 of their endings (24%). The most striking difference concerned the initiation of outcomes. Forty-nine of the 72 outcomes given by the higher M^p group (68%) were initiated by someone other than the central figure of the story. The higher M^a group did this in only 21 (29%) of their endings.

Additional data contributing to an understanding of the $M^a:M^p$ ratio has been gleaned from therapist ratings. Fourteen dynamically oriented therapists completed ratings for 56 of their own patients after the third, sixth, and ninth treatment sessions (Exner, 1978). The ratings concerned a

variety of treatment issues and observations, such as promptness, estimates about motivation for treatment, ease of sharing concerns, and such. Among the items included were ones concerning requests for direction, lengthy intervals of silence during the session, and impressions of a general sense of helplessness. Fifteen of the 56 patients had pretreatment Rorschachs in which M^p was greater than M^a . The therapist ratings for that group were substantially higher concerning requests for direction and impressions of a general sense of helplessness when compared with those for the other 41 patients.

Exner (1978) has suggested that when M^p is greater than M^a , it indicates that the ideation of the person, especially the person's fantasies, will be marked much more than is common by a "Snow White" feature. He described this as being more likely to take flight into passive forms of fantasy as a defensive maneuver, and also being less likely to initiate decisions or behaviors if the alternative that others will do so is available. Approximately 14% of 600 adults in the nonpatient sample have this feature, as contrasted with 32% of 535 outpatients, 32% of 279 inpatient depressives, and with 35% of 328 inpatient schizophrenics. It seems likely that the Snow White feature is probably much more of a liability for the introversive than for extratensives, because introversives are more prone to rely on the workings of their inner life. It is probably an even greater liability for those patients with disturbed thinking because the composite of disordered thought and fantasy abuse can only portend poorly for appropriate decision making.

Morbid Content

Most of the data regarding the relationship between Morbid content responses and thinking is derived from research concerning depression, and the reports of therapists working with depressed patients. The Special Score MOR evolved from efforts to study depression in children. Some previous efforts to use morbid content as a suicide

indicator had been noted to achieve some modest success (White & Schreiber, 1952; Sakheim, 1955; Fleischer, 1957; C. Thomas, Ross, Brown, & Duszynski, 1973). Extrapolating from those works, plus some of the criteria listed for the Fisher and Cleveland (1958) Penetration scoring, a listing of possible criteria for MOR was submitted to five judges who worked independently. Subsequently, the definitions that were selected by all five judges as reflecting some aspect of morbidity were integrated, and the resulting criteria tested for interscorer reliability, which yielded a 95% agreement among 10 scorers and 15 records that contained a total of 57 MOR answers (Exner & McCoy, 1981).

The retest reliability of MOR among nonpatient adults ranges from .71 for long-term retests, to .83 when the retest is administered during a period of three weeks. The reliability of MOR among nonpatient children, over brief intervals, is slightly higher than for adults, ranging from .84 to .90. This is probably because children tend to have a greater proportion of records in which one MOR appears. About 53% of 600 nonpatient adults have at least one MOR in their records, but only 4% give more than two. Between 59% and 100% of the records of younger nonpatients, depending on the age group, give at least one MOR, but only between 3% and 8% give more than two, except at age 13 in which 11% of the 120 children gave more than two MOR answers. The slightly higher frequency of MOR answers among younger clients is apparently because they give a greater number of "flattened" animal responses to Card VI.

The frequency by which outpatients give at least one MOR answer is slightly higher (59%) than for nonpatients, and about 13% give more than one. Among 200 schizophrenics who do not have an avoidant style, about 64% give at least one MOR, and 30% give more than two. In a group of 193 first admission depressives, MOR answers appear at least once in 70% of the protocols and more than twice in 27% of the records. Exner and Weiner (1982) found that inpatient children, with a primary symptom of depression,

average nearly three MOR responses as compared with about one for other inpatient children. They also retested 22 depressed inpatient children who had progressed satisfactorily after approximately 8 months of treatment and found that the mean MOR had declined from 2.94 in the first test to 1.01 in the second.

Exner, Martin, and Mason (1984) found a considerable elevation in MOR, greater than three, in 72 of 101 (71%) protocols collected within 60 days prior to an effected suicide. They used that group of protocols to cross-validate the original Suicide Constellation formulated by Exner and Wylie (1977). A discriminant function analysis reveals that $MOR > 3$ does contribute to the differentiation of the suicide group from various control groups and it was added as a twelfth variable to the revised Suicide Constellation. The pretreatment records of the 430 outpatients who had volunteered to participate in a treatment effects study (Exner, 1978) were coded for MOR after the criteria had been established, and any containing three or more MOR responses were used to create a separate group, disregarding presenting symptom patterns ($N=76$).

Therapist ratings for these patients, completed early into treatment, were reviewed and compared with the ratings of 76 other patients, drawn randomly from the remaining 354 patients in the study. There was no single consistent difference between the groups, but a composite of nine items concerning attitudes toward the self, the presenting problem, and expectations for the future were rated significantly more negatively for the high MOR group. The patients who had more than two MOR responses were rated as being clearly pessimistic about their future, including the likelihood of some favorable treatment outcome.

The Intellectualization Index

An original intellectualization index was calculated as $Ab+Art$ (Exner, 1987), but subsequent research concerning what was then a content score for abstract responses (ab) suggested that abstractions

are more appropriately accounted for if a special score designation was used (AB). That analysis also revealed that abstraction responses account for much more variance in identifying the defensive process of intellectualization, and that the content category for anthropology also contributes. Thus, a revised index, designed to account for all three variables with the special score AB weighed double, was formulated (Exner, 1990).

Reexamination of the validation criteria from which the original index was developed, mainly therapist reports collected during the first 10 weeks of treatment concerning the defensive structure of clients, indicates that values of four and five have some limited interpretive significance. Persons with values of four and five do tend to intellectualize more often than most others, but it is erroneous to assume that this defensive strategy is a major, or frequently used, feature in the psychological operations of the individual. On the other hand, when the value is six or greater there is a much greater agreement among therapist ratings that the individual does employ intellectualization as a major tactic to neutralize some of the impact of emotion.

Although this process serves to reduce or neutralize the impact of the emotions, it also represents a naive form of denial that tends to distort the true impact of a situation. In effect, it is a pseudo-intellectual process that conceals and/or denies the presence of affect and, as a result, tends to reduce the likelihood that feelings will be dealt with directly and/or realistically.

Sum6 and WSum6

The Critical Special Scores, Levels 1 and 2 DV, INCOM, DR, and FABCOM, plus the ALOG and CONTAM, identify events in which there is some difficulty in formulating or expressing aspects of thinking. None of these events, with the possible exceptions of the DR2, FABCOM2 responses, and the CONTAM, are necessarily major causes for concern, provided that they occur with very low frequencies. Nearly 83% of the 600 nonpatient

adults gave at least one response for which a Critical Special Score was assigned, and the mode for the group is two. The average *WSum6* among nonpatients is 4.48. Nonpatient children tend to give more responses for which these special scores are assigned. For example, 7-year-olds average nearly six, and 10-year-olds average slightly more than five. The averages for the *WSum6* gradually decline through the developmental years, with the largest, 11.08 at age 5, falling to 6.86 by age 12, and 4.57 for the 16-year-old group.

At the other extreme, a group of 200 first admission schizophrenics, who do not have an avoidant style, average nearly 12 critical special scores. In that group, 184 (92%) gave at least one Level 2 response, and the group mean for the *WSum6* is 52.31 with a median of 35.0 and a mode of 23.0. On the other hand, most records in a group of 535 outpatients show no greater frequency of Critical Special Scores than do nonpatients, although the mean *WSum6* for the group is somewhat higher, 9.36.

Higher than expected values of *WSum6* are not uncommon among various patient groups. For instance, Exner (1986) noted that patients diagnosed as having a schizotypal disorder give substantially more Critical Special Scores, and have a higher average *WSum6*, than do patients diagnosed as having a borderline disorder. Silberg and Armstrong (1992) found that elevations in *WSum6* are common among inpatient adolescents considered to be suicidal. Similarly, Goldstein (1998) found that *WSum6* tends to increase with suicidality among inpatient adolescents. Malone (1996) reported substantially higher values for *WSum6* among adult women in therapy who have childhood incest histories, and Van-Patten (1997) reported a higher *WSum6* among juvenile delinquents as contrasted with nonpatient adolescents.

REFERENCES

- Abrams, E. W. (1955). Predictions of intelligence from certain Rorschach factors. *Journal of Clinical Psychology, 11*, 81-84.
- Altus, W. D. (1958). Group Rorschach and Q-L discrepancies on the ACE. *Psychological Reports, 4*, 469.
- Ames, L. B. (1960). Constancy of content in Rorschach responses. *Journal of Genetic Psychology, 96*, 145-164.
- Ames, L. B., Metraux, R. W., & Walker, R. N. (1971). *Adolescent Rorschach responses*. New York: Brunner/Mazel.
- Beck, S. J. (1945). *Rorschach's test. II: A variety of personality pictures*. New York: Grune & Stratton.
- Beck, S. J. (1965). *Psychological process in the schizophrenic adaptation*. New York: Grune & Stratton.
- Beck, S. J., Beck, A., Levitt, E. E., & Molish, H. B. (1961). *Rorschach's test. I: Basic processes* (3rd ed.). New York: Grune & Stratton.
- Bendick, M. R., & Klopfer, W. G. (1964). The effects of sensory deprivation and motor inhibition on Rorschach movement responses. *Journal of Projective Techniques, 28*, 261-264.
- Beri, J., & Blacker, E. (1956). External and internal stimulus factors in Rorschach performance. *Journal of Consulting Psychology, 20*, 1-7.
- Cocking, R. R., Dana, J. M., & Dana, R. H. (1969). Six constructs to define Rorschach M: A response. *Journal of Projective Techniques and Personality Assessment, 33*, 322-323.
- Cooper, L., & Caston, J. (1970). Physical activity and increases in M response. *Journal of Projective Techniques and Personality Assessment, 34*, 295-301.
- Dana, R. H. (1968). Six constructs to define Rorschach M. *Journal of Projective Techniques and Personality Assessment, 32*, 138-145.
- Dudek, S. Z. (1968). M an active energy system correlating Rorschach M with ease of creative expression. *Journal of Projective Techniques and Personality Assessment, 32*, 453-461.
- Evans, R. B., & Mormorston, J. (1964). Rorschach signs of brain damage in cerebral thrombosis. *Perceptual Motor Skills, 18*, 977-988.
- Exner, J. E. (1974). *The Rorschach: A Comprehensive System. Volume 1*. New York: Wiley.
- Exner, J. E. (1978). *The Rorschach: A Comprehensive System. Volume 2. Current research and advanced interpretation*. New York: Wiley.
- Exner, J. E. (1983). *1983 Alumni newsletter*. Bayville, NY: Rorschach Workshops.
- Exner, J. E. (1986). Some Rorschach data comparison schizophrenics with borderline and schizotypal

- personality disorders. *Journal of Personality Assessment*, 50, 455-471.
- Exner, J. E. (1987). An intellectualization index. *Alumni newsletter*. Asheville, NC: Rorschach Workshops.
- Exner, J. E. (1988). *COP. Alumni newsletter*. Asheville, NC: Rorschach Workshops.
- Exner, J. E. (1990a). EB Pervasive (EBPer) *Alumni newsletter*. Asheville, NC: Rorschach Workshops.
- Exner, J. E. (1990b). The intellectualization index [2AB+(Art+Ay)]. *Alumni newsletter*. Asheville, NC: Rorschach Workshops.
- Exner, J. E. (1991). *The Rorschach: A Comprehensive System. Volume 2: Interpretation* (2nd ed.). New York: Wiley.
- Exner, J. E. (1993). *The Rorschach: A Comprehensive System. Volume 1: Basic foundations* (3rd ed.). New York: Wiley.
- Exner, J. E., Armbruster, G. L., & Wylie, J. R. (1976). *TAT stories and the M^c:M^p ratio*. Rorschach Workshops (Study No. 225, unpublished).
- Exner, J. E., & Bryant, E. L. (1974). *Flexibility in creative efforts as related to three Rorschach variables*. Rorschach Workshops (Study No. 187, unpublished).
- Exner, J. E., Martin, L. S., & Mason, B. (1984). *A review of the Rorschach Suicide Constellation*. 11th International Congress of Rorschach and Projective Techniques, Barcelona, Spain.
- Exner, J. E., & McCoy, R. (1981). *An experimental score for morbid content (MOR)*. Rorschach Workshops (Study No. 260, unpublished).
- Exner, J. E., & Thomas, E. A. (1982). *Postural-gestural behaviors among introverts and extroverts during a structured interview*. Rorschach Workshops (Study No. 292, unpublished).
- Exner, J. E., Viglione, D. I., & Gillespie, R. (1984). Relationships between Rorschach variables as relevant to the interpretation of structural data. *Journal of Personality Assessment*, 48, 65-70.
- Exner, J. E., & Weiner, I. B. (1982). *The Rorschach: A Comprehensive System. Volume 3. Assessment of children and adolescents*. New York: Wiley.
- Exner, J. E., & Wylie, J. R. (1974). *Therapist ratings of patient "insight" in an uncovering form of psychotherapy*. Rorschach Workshops (Study No. 192, unpublished).
- Exner, J. E., & Wylie, J. R. (1977). Some Rorschach data concerning suicide. *Journal of Personality Assessment*, 41, 339-348.
- Fisher, S., & Cleveland, S. E. (1958). *Body image and personality*. New York: Van Nostrand Reinhold.
- Fleischer, M. S. (1957). *Differential Rorschach configurations of suicidal patients: A psychological study of threatened, attempted, and successful suicides*. Unpublished doctoral dissertation, Yeshiva University.
- Frankle, A. H. (1953). *Rorschach human movement and human content responses as indices of the adequacy of interpersonal relationships of social work students*. Unpublished doctoral dissertation, University of Chicago.
- Gibby, R. G., Stotsky, B. A., Harrington, R. L., & Thomas, R. W. (1955). Rorschach determinant shift among hallucinatory and delusional patients. *Journal of Consulting Psychology*, 19, 44-46.
- Goldstein, D. B. (1998). Rorschach correlates of aggression in an adolescent inpatient sample. *Dissertation Abstracts*, 58, 5118.
- Guirdham, A. (1936). The diagnosis of depression by the Rorschach Test. *British Journal of Medical Psychology*, 16, 130-145.
- Halpern, F. (1940). Rorschach interpretation of the personality structure of schizophrenics who benefit from insulin therapy. *Psychiatric Quarterly*, 14, 826-833.
- Hammer, E. F., & Jacks, I. (1955). A study of Rorschach flexor and extensor human movement responses. *Journal of Clinical Psychology*, 11, 63-67.
- Hersh, C. (1962). The cognitive functioning of the creative person: A developmental analysis. *Journal of Projective Techniques*, 26, 193-200.
- Hertzman, M., Orlansky, D., & Seitz, C. P. (1944). Personality organization and anoxia tolerance. *Psychosomatic Medicine*, 6, 317-331.
- Kallstedt, F. E. (1952). A Rorschach study of 66 adolescents. *Journal of Clinical Psychology*, 8, 129-132.
- King, G. F. (1960). Rorschach human movement and delusional content. *Journal of Projective Techniques*, 24, 161-163.
- Klein, G. S., & Schlesinger, H. G. (1951). Perceptual attitudes toward instability: Prediction of apparent movement experiences from Rorschach responses. *Journal of Personality*, 19, 289-302.
- Klopfer, B., Kirkner, F., Wisham, W., & Baker, G. (1951). Rorschach prognostic rating scale. *Journal of Projective Techniques*, 15, 425-428.
- Langmuir, C. R. (1958). *Varieties of decision making behavior: A report of experiences with the Logical Analysis Device*. Washington, DC: American Psychological Association.

- Lerner, B. (1966). Rorschach movement and dreams: A validation study using drug-induced deprivation. *Journal of Abnormal Psychology, 71*, 75-87.
- Levine, M., Glass, H., & Meltzoff, J. (1957). The inhibition process. Rorschach human movement response and intelligence. *Journal of Consulting Psychology, 21*, 45-49.
- Levine, M., & Spivack, G. (1962). Human movement responses and verbal expression in the Rorschach Test. *Journal of Projective Techniques, 26*, 299-304.
- Lipton, M. B., Tamarin, S., & Latesta, P. (1951). Test evidence of personality change and prognosis by means of the Rorschach and Wechsler-Bellevue tests on 17 insulin treated paranoid schizophrenics. *Psychiatric Quarterly, 25*, 434-444.
- Loveland, N. T., & Singer, M. T. (1959). Projective test assessment of the effects of sleep deprivation. *Journal of Projective Techniques, 23*, 323-334.
- Malone, J. A. (1996). Rorschach correlates of childhood incest history in adult women in psychotherapy. *Dissertation Abstracts, 56*, 5176.
- Mason, B., & Exner, J. E. (1984). *Correlations between WAIS subtests and nonpatient adult Rorschach data*. Rorschach Workshops (Study No. 289, unpublished).
- Mirin, B. (1955). The Rorschach human movement response and role taking behavior. *Journal of Nervous and Mental Disorders, 122*, 270-275.
- Molish, H. B. (1955). *Schizophrenic reaction types in a Naval Hospital population as evaluated by the Rorschach Test*. Washington, DC: Bureau of Medicine and Surgery, Navy Department.
- Ogdon, D. P., & Allee, R. (1959). Rorschach relationships with intelligence among familial mental defectives. *American Journal of Mental Deficiency, 63*, 889-896.
- Orlinski, D. E. (1966). Rorschach test correlates of dreaming and dream recall. *Journal of Projective Techniques and Personality Assessment, 30*, 250-253.
- Page, H. A. (1957). Studies in fantasy-daydreaming frequency and Rorschach scoring categories. *Journal of Consulting Psychology, 21*, 111-114.
- Palmer, J. O. (1963). Alterations in Rorschach's experience balance under conditions of food and sleep deprivation: A construct validation study. *Journal of Projective Techniques, 27*, 208-213.
- Paulsen, A. (1941). Rorschachs of school beginners. *Rorschach Research Exchange, 5*, 24-29.
- Phillips, L., & Smith, J. G. (1953). *Rorschach interpretation: Advanced technique*. New York: Grune & Stratton.
- Piotrowski, Z. (1937). The Rorschach ink-blot method in organic disturbances of the central nervous system. *Journal of Nervous and Mental Disorders, 86*, 525-537.
- Piotrowski, Z. (1939). Rorschach manifestations of improvement in insulin treated schizophrenics. *Psychosomatic Medicine, 1*, 508-526.
- Piotrowski, Z. (1940). Positive and negative Rorschach organic reactions. *Rorschach Research Exchange, 4*, 147-151.
- Piotrowski, Z. (1957). *Perceptanalysis*. New York: Macmillan.
- Piotrowski, Z. (1960). The movement score. In M. Rickers-Ovsiankina (Ed.), *Rorschach psychology*. New York: Wiley.
- Piotrowski, Z., & Bricklin, B. (1958). A long-term prognostic criterion for schizophrenics based on Rorschach data. *Psychiatric Quarterly Supplement, 32*, 315-329.
- Piotrowski, Z., & Bricklin, B. (1961). A second validation of a long-term Rorschach prognostic index for schizophrenic patients. *Journal of Consulting Psychology, 25*, 123-128.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Psychological diagnostic testing* (Vol. 2). Chicago: Yearbook Publishers.
- Rees, W. L., & Jones, A. M. (1951). An evaluation of the Rorschach test as a prognostic aid in the treatment of schizophrenics by insulin coma therapy, electronarcosis, electroconvulsive therapy, and leucotomy. *Journal of Mental Science, 97*, 681-689.
- Richter, R. H., & Winter, W. D. (1966). Holtzman ink-blot correlates of creative potential. *Journal of Projective Techniques and Personality Assessment, 30*, 62-67.
- Rorschach, H. (1921). *Psychodiagnostik*. Bern, Switzerland: Bircher.
- Sakheim, G. A. (1955). Suicidal responses on the Rorschach test: A validation study. *Journal of Nervous and Mental Diseases, 122*, 332-344.
- Schmidt, H., & Fonda, C. (1954). Rorschach scores in the manic states. *Journal of Psychology, 38*, 427-437.
- Schulman, I. (1953). *The relation between perception of movement on the Rorschach test and levels of conceptualization*. Unpublished doctoral dissertation, New York University.
- Silberg, J. L., & Armstrong, J. G. (1992). The Rorschach test for predicting suicide among depressed adolescent inpatients. *Journal of Personality Assessment, 59*, 290-303.

- Singer, J. L., & Brown, S. L. (1977). The experience type: Some behavioral correlates and theoretical implications. In M. A. Rickers-Ovsiankina (Ed.), *Rorschach psychology* (2nd ed.). Huntington, NY: Robert E. Krieger.
- Singer, J. L., & Herman, J. (1954). Motor and fantasy correlates of Rorschach human movement responses. *Journal of Consulting Psychology, 18*, 325-331.
- Singer, J. L., Meltzoff, J., & Goldman, G. D. (1952). Rorschach movement responses following motor inhibition and hyperactivity. *Journal of Consulting Psychology, 16*, 359-364.
- Singer, J. L., & Spohn, H. (1954). Some behavioral correlates of Rorschach's experience-type. *Journal of Consulting Psychology, 18*, 1-9.
- Sommer, R., & Sommer, D. T. (1958). Assaultiveness and two types of Rorschach color responses. *Journal of Consulting Psychology, 22*, 57-62.
- Steele, N. M., & Kahn, M. W. (1969). Kinesthesia and the Rorschach M response. *Journal of Projective Techniques and Personality Assessment, 33*, 5-10.
- Stotsky, B. A. (1952). A comparison of remitting and nonremitting schizophrenics on psychological tests. *Journal of Abnormal and Social Psychology, 47*, 489-496.
- Tanaka, F. (1958). Rorschach movement responses in relation to intelligence. *Japanese Journal of Educational Psychology, 6*, 85-91.
- Thomas, C. B., Ross, D. C., Brown, B. S., & Duszynski, K. R. (1973). A prospective study of the Rorschachs of suicides: The predictive potential of pathological content. *Johns Hopkins Medical Journal, 132*, 334-360.
- Thomas, H. F. (1955). The relationship of movement responses on the Rorschach test to the defense mechanism of projection. *Journal of Abnormal and Social Psychology, 50*, 41-44.
- Van-Patten, K. (1997). The quality of human responses on the Rorschach: A comparison of juvenile delinquents and a normal sample of adolescents. *Dissertation Abstracts, 57*, 7217.
- Wagner, E. E., & Hoover, T. O. (1971). Exhibitionistic M in drum majors: A validation. *Perceptual Motor Skills, 32*, 125-126.
- Wagner, E. E., & Hoover, T. O. (1972). Behavioral implications of Rorschach's human movement response. Further validation based on exhibitionistic M's. *Perceptual Motor Skills, 35*, 27-30.
- Weiner, I. B. (1966). *Psychodiagnosis in schizophrenia*. New York: Wiley.
- Wetherhorn, M. (1956). Flexor-extensor movement on the Rorschach. *Journal of Consulting Psychology, 20*, 204.
- White, M. A., & Schreiber, H. (1952). Diagnosing "suicidal risks" on the Rorschach. *Psychiatric Quarterly Supplement, 26*, 161-189.
- Wiener-Levy, D., & Exner, J. E. (1981). The Rorschach EA-ep variable as related to persistence in a task frustration situation under feedback conditions. *Journal of Personality Assessment, 45*, 118-124.
- Witkin, H. A., Dyk, R. B., Faterston, H. F., Goodenough, D. R., & Karp, S. A. (1962). *Psychological differentiation: Studies of development*. New York: Wiley.
- Young, G. R., & Wagner, E. E. (1993). Behavioral specificity in the Rorschach human movement response: A comparison of strippers and models. *Journal of Clinical Psychology, 49*, 407-412.

CHAPTER 20

Self-Perception

The notion of self has varied considerably in psychology. Therefore, it seems important to clarify the use of the term as applied to this cluster of variables. Self-perception pertains to two features, *self-image* and *self-involvement*. Self-image constitutes the impressions that one has regarding his or her own characteristics. It is an internal lexicon of concepts related to the characteristics of oneself. Many of these impressions are readily accessible to one's conscious thinking, but some may be partially or completely inaccessible to conscious awareness. This is because they are unwanted or conflicting and thus tend to be suppressed or even repressed.

Although individuals may sometimes mentally summarize impressions of their self in global terms (I'm an average person, I'm a good person, etc.), the features in the lexicon of impressions often are conceptualized more specifically in relation to a continuum such as bright versus dull, attractive versus ugly, outgoing versus shy, and so on. Many impressions may be formed without using such a referent, such as creative, vulnerable, kind, friendly, sensitive, sincere, trusting, even though the possibility of using a referent exists.

The lexicon grows from experience, and many of the characteristics that a person attributes to himself or herself are derived from reality-based experiences. Other features in the lexicon, however, may have evolved from misinterpretations of experience and some may be purely imaginary. Regardless of their basis, the lexicon of perceived characteristics forms an internal representation

of the self, *as perceived* by the individual. The extent to which self-image is congruent or incongruent with reality has much to do with potentials for adjustment or maladjustment.

Self-involvement derives from self-image. It has to do with the extent to which a person is concerned with himself or herself as contrasted with concerns for the external world. In effect, self-involvement equates with self-centeredness but that does not mean that people who are very self-involved or self-centered necessarily hold themselves in high regard. It is true that people who are more self-involved often do hold themselves in high regard; that is, they place a substantial value on their self-image, or characteristics that comprise it, when they make judgments about themselves against external sources. However, people with problems often become very self-involved and tend to focus much less on the external world than should be the case. Instead, they often focus on their lack of personal worth as contrasted with others, usually significant others who may be real or imagined.

Thus, self-involvement can be cast in either a positive or negative framework and can be formed in both specific ("I'm not as outgoing as she") or general ("I'm more creative than most") terms. Self-involvement often plays an important role when setting achievement objectives. As noted, self-image and self-involvement are interrelated, but in some instances the relationship is not as direct as might be assumed. For instance, a person may hold himself or herself in high regard even

though some perceived features of the self are judged to be modest or even substandard ("I am not very talented but I am a very good person").

When the perceived features of the self are based largely on imagination or distortions of reality, a false sense of personal worth is created. For example, low self-esteem is almost inevitable if many of the features related to self-image are perceived to be negative regardless of whether the self-image is reality based. Similarly, an excessive self-involvement and an exaggerated sense of personal worth are generated when the perceived features of self-image are overrated. When a perception such as this receives no confirmation of the overrated self-image features, through achievements or relationships with others, an excessive use of defensive tactics usually evolves to maintain the inflated sense of self-worth. This can easily lead to internal and/or external problems.

RORSCHACH VARIABLES RELATED TO SELF-PERCEPTION

The Rorschach data related to self-perception are varied and interpretation relies considerably on one's skill in detecting and using projected material. The cluster includes nine structural variables (*OBS*, *HVI*, *Reflections*, *Egocentricity Index*, *FD*, *SumV*, the ratio $H:(H)+Hd+(Hd)$, $An+Xy$, & *MOR*), the codings for all responses containing human content, and a search for self-representations that have been projected into some of the responses of the protocol. In addition, *R* and the *EB* provide necessary prerequisite information when the data for human contents are reviewed.

It is very important for the interpreter to seek out positive as well as negative features that mark self-image. Usually, negative features are easily detected but positive findings are often neglected. In some instances, that neglect may be created by the fact that positive features are a bit more difficult to identify but, more likely, it is created from the sets that are generated by the assessment questions posed for the interpreter. Typically, these questions involve negative features or issues and,

in their quest to address them, interpreters may overlook or underestimate positive elements.

Presearch Issues

The fundamental issues to be addressed when interpreting the material regarding self-perception include: (1) Are there stylistic features of the personality that signify the presence of specific self-image features? (2) Are the levels of self-worth and self-concern typical or atypical for the age of the person? (3) Are there preoccupations with specific features of the self-image? (4) What are the discernible negative features of the self-image? (5) What are the discernible positive features of the self-image? (6) Is there evidence of significant distortions concerning either positive or negative self-image features? Two cases will be used to illustrate the procedure used to study self-perception. The procedure focuses first on the structural variables and then moves on to a study of content.

Case 12

This 47-year-old male was admitted to a private psychiatric facility six days ago on the advice of his psychiatrist, who has been treating him as an outpatient for five weeks. His decision to seek therapy was encouraged by his colleagues, who have noted him to often become disoriented while at work, and at the suggestion of his wife who claims that "he has not been himself" for the past several months. He had been taking an antidepressant while an outpatient, but this was discontinued on admission. He reports no prior psychiatric history except some counseling he received at a Veterans Administration clinic shortly after being discharged from the Army during the Vietnam war. The counseling involved seven sessions, and was mainly for assistance in educational and occupational planning, but also focused on the fact that his first wife had been unfaithful while he was overseas.

He is the oldest of three children. His father, 69, is a retired farmer. Three years ago, his mother died at 63 from cancer. His sister, age 45, is a housewife with two children, and his brother, 41, now owns the family farm. He received a B.A. degree in business at age 22,

married three days after graduation, and was called to active duty with the army immediately. He and his wife lived at an army post during their first six months of marriage, after which he was transferred to Vietnam as an infantry platoon leader. He served 14 months in Vietnam, was wounded, and returned to a stateside hospital. On returning to the states, he learned that his wife had been "sleeping around." She no longer expressed interest in him. He filed for divorce, which she did not contest.

After being discharged, he began working as an office manager for a small industrial manufacturing company. After nine years, he was offered a partnership in the business but, instead, he elected to accept an offer to become an industrial sales representative for a large manufacturing firm, and has been with that firm for 14 years. He has been promoted several times and has been regarded as the next logical vice president for sales. He remarried at age 27 to one of the secretaries of the firm. He and she both claim a happy marriage during the past 20 years. They have three children (male 18, college freshman; female 16, high school junior; female 12, sixth grade). His wife reports that about two years prior to admission he began displaying more aggressiveness, lost interest in golfing, and often talked about the unfair competition at work. She said that he began making demands for sexual activities to which neither were accustomed, apparently on the premise that it would liven up their marriage.

He admits this is true, but argues that it was not as bizarre as she suggests. He also says that some of his colleagues wanted his job, and tried to make him look bad to his superiors. He says he is sure he has heard many talking about him at work, but he also admits that these may have been "figments of my imagination." He says that about three months ago he began having difficulty sleeping, forgot several appointments

and, on one occasion, forgot to drive to work and drove to a restaurant instead. His wife says that recently he has been drunk several times, accused her of unfaithfulness (which she denies), and challenged a coworker to a fight. He entered treatment reluctantly arguing that this would make him look bad. He has agreed to brief hospitalization to have thorough physical, neurological, and psychological evaluations completed. His therapist has raised questions about depression, a bipolar disorder, or a schizo-affective condition.

Case 13

This 29-year-old woman was referred by a psychiatrist to whom she was referred by her family physician. She has seen the psychiatrist seven times over a period of two months, and persists in her original complaint of feeling jittery, and having trouble concentrating at times. She has been prescribed antianxiety medication, but says that it has not helped. The psychiatrist believes that a more thorough assessment is in order before proceeding with any additional medication and/or planning a different course of treatment. She is described as having been quite cooperative during the evaluation, conveying a marked appreciation for the attention she was getting.

She is the youngest of three daughters. Her father, age 55, is a carpenter. Her mother, age 53, does not work outside of the home. Her oldest sister, age 34, is married to a firefighter, and has three children. Her 31-year-old sister is married to an insurance salesman, and has two children. There is no psychiatric history in the immediate family. She graduated from high school at age 18 with "average grades," and entered a technical college with the intention of completing a two-year program in secretarial science. She decided to drop out after one year because, "I really didn't like it very much

Case 12. Self-Perception Related Data for a 47-Year-Old Male.

R	= 21	OBS	= No	HVI = No	Human Content, An & Xy Responses
Fr + rF	= 0	3r + (2)/R	= 0.19	I 1. WSo FC'o (Hd), Ay 3.5 GHR	
FD	= 3	Sum V	= 1	III 6. D+ Ma.mp.FC'.FD.CFo 2 H,Fd,Cg P 3.0 COP,MOR,GHR	
An + Xy = 1		MOR	= 6	V 12. D+ Ma.FC'-- H,Hh,Sx 2.5 COP,PHR	
H:(H) + Hd + (Hd) = 3:3				VII 14. W+ Mpo 2 Hd P 3.0 GHR	
[EB = 4:6.0]				VIII 16. W+ FMa.CFo 2 A,An,Fd P 4.5 AG,MOR,PHR	
				IX 19. DSo FC'o (H) 5.0 GHR	
				X 20. DS+ Ma.YF.CF.mpo H,Fi,Sc 6.0 GHR	

Case 13. Self-Perception Related Data for a 29-Year-Old Female.

R = 25	OBS = No	HVI = No	Human Content, An & Xy Responses
Fr + rF = 2	3r + (2)/R = 0.64	III 6. D+ Mp.Fro H,Cg P 3.0 GHR	
FD = 1	SumV = 0	III 7. Do FC.Mpo 2 (H) GHR	
An + Xy = 0	MOR = 1	VI 13. Dd+ Fu (H),Cg 2.5 PER,PHR	
H:(H) + Hd + (Hd) = 1:3		VII 14. D+ Mpo 2 Hd P 3.0 GHR	
[EB = 3:8.0]			

and they didn't offer anything else that interested me." She then worked as a cashier in an auto parts store for four years, "I really liked that job cause you got to meet a lot of different people."

She was married at age 24, and divorced four years later. Her exhusband is co-owner of an auto repair shop, and also works on the pit crew for an auto racing team during the season. He is also 29. She says that their relationship was "exciting at first, traveling to different races and getting to know a lot of people. I thought we'd have a good marriage, but it was bad from the start. He was too dominating. I could never make a decision. He never really permitted me to be me." She stopped accompanying him to races after about a year, and admits that she began to "see other men" when he was away on weekends. They separated after having been married for about three years, and have been divorced for about 11 months.

She says, "It was just a big mistake. He always was overwhelming me by his domination. I'd like to be married but not to a guy like him." She notes that she has dated several men since her marriage broke up, "but they're all out for the same thing." She says that she is being more selective about who she dates and feels confident that "the right guy will come along someday." During the past 18 months, she has been working as a receptionist in a dentist's office. She says that her job is "okay," but makes it clear that she would prefer a different position. She says that she has thought about returning to school, but is not sure what she might study. She says that "my nervousness comes and goes." Some days there are no symptoms, but on other days, "I almost feel like I'm going to jump out of my chair, and I can't think straight."

The referring psychiatrist asks about casual factors, assumes that a diagnosis of panic disorder is ap-

propriate, and requests a recommendation concerning the most appropriate course of treatment.

INTERPRETIVE ROUTINE

The interpretive strategy consists of eight steps. The first seven focus on structural data and an evaluation of the codings for the answers containing human content. The last entails a search for projected material in the verbiage and contents of the protocol.

Step 1: OBS, HVI

The OBS and HVI have been discussed in relation to cognitive functions, but it is important to review them again in the context of self-perception.

Potential Finding for OBS: As previously noted, a positive OBS signifies a preoccupation with perfectionism. This style is not necessarily a liability, but it can become one if carried to excess or if the person experiences significant failures. Obsessive people maintain strong values regarding correctness or preciseness and tend to have a disdain for those who do not share those values. There are numerous theories concerning the origins of obsessiveness, but they all share a common assumption: Namely, that obsessive people harbor a sense of insecurity because they question their own adequacy. The striving for perfection is a way of controlling the worries about being insecure

and, even more, it is a way of avoiding the dreaded mistakes that might validate the sense of inadequacy.

Usually, the self-image of an obsessive individual is not marked by very grandiose features. Instead, the view of the self tends to be more conservative and sometimes more negative than should be the case. If the self-image of an obsessive person includes unrealistic exaggerations, he or she is at greater risk for psychological problems when failure occurs. This is because obsessive people are prone to magnify the importance and consequences of mistakes and readily degrade themselves.

Potential Finding for HVI: A positive HVI signals the presence of a preoccupation with vulnerability. It is a general rather than specific preoccupation and, as noted in previous chapters, stems from a mistrusting attitude toward the environment. Hypervigilant people are very concerned with safeguarding their personal integrity and tend to attribute the causes for difficulties or failures to external forces, regardless of the realities of a situation. Their sense of uncertainty about the actions and reactions of others fosters a heightened concern about being prepared to ensure that their own behaviors will be appropriate and that they will avoid being degraded or manipulated. The hypervigilant person is not very flexible about this state of guardedness and invests considerable energy to maintain it. When circumstances cause the hypervigilance to intensify, the ideation of the individual becomes noticeably marked by paranoid features. Proceed to Step 2.

Step 2: Reflections

Reflection answers relate to a narcissistic-like feature of personality. It is a nuclear element of the self and includes a marked tendency to value oneself very highly. This characteristic is natural among younger children, but usually disappears or becomes moderated during adolescence as formal cognitive operations become more widespread

and social relationships take on a new importance. The presence of an exaggerated sense of self-worth does not automatically lead to some sort of pathology. Many people who hold themselves in high regard are very successful in life, but there is always the risk that their self-centeredness can impair the development of a mature balance between a healthy concern for one's own integrity and the integrity of others.

The probability that this inflated sense of self-worth will lead to adjustment problems is largely contingent on the extent to which the individual is able to achieve reassurance. This is because the tendency to value oneself highly often contributes significantly to the development of motives for status. If that recognition is achieved, it reduces the likelihood that pathology or maladjustment will occur. On the other hand, failures to obtain reaffirmation of the high self-value usually lead to frustration and negativism. This usually leads to the development of elaborate systems of personal defense through which the integrity of the belief concerning the extraordinary personal worth can be protected. This creates a predisposition to pathology and/or maladjustment. Rationalization, externalization, and denial typically form the core of these defenses.

Potential Finding: If the value for $Fr+rF$ is greater than zero, it indicates an exaggerated self-involvement, and an inflated sense of personal worth that tends to dominate the individual's perceptions of the world. This characteristic is a basic personality feature that is highly influential in decisions and behaviors because of the need for frequent reaffirmation or reinforcement of the exaggerated sense of personal pride. Adolescents and adults with this feature often find it difficult to establish and maintain deep and meaningful interpersonal relations. In some instances, this provokes self-examining and, if that occurs, internal conflict can arise, involving a struggle between the high value attributed to the self and some awareness that it may not be valid. If

Case 13. Self-Perception Related Data for a 29-Year-Old Female.

R = 25	OBS = No	HVI = No	Human Content, An & Xy Responses
Fr + rF = 2	3r + (2)/R = 0.64	III 6.	D+ Mp.Fro H,Cg P 3.0 GHR
FD = 1	SumV = 0	III 7.	Do FC.Mpo 2 (H) GHR
An + Xy = 0	MOR = 1	VI 13.	Dd+ Fu (H),Cg 2.5 PER,PHR
H:(H) + Hd + (Hd) = 1:3		VII 14.	D+ Mpo 2 Hd P 3.0 GHR
[EB = 3:8.0]			

the environment has been especially ungriving of reassurance, asocial and/or antisocial sets can evolve rather easily. Proceed to Step 3.

Case 13 Finding Positive

Her protocol contains two reflection answers indicating that she is unusually self-centered and has an exaggerated sense of personal worth. This characteristic is very influential in her decisions and behaviors and probably creates some difficulties for her in creating and maintaining mature interpersonal relations. It also increases the probability that she externalizes blame and/or denies the presence of unwanted stresses. Her complaints of being dominated in her marriage may represent this type of rationalization and, the fact that she has some occupational dissatisfaction, hints at the possibility she is experiencing a struggle between her inflated sense of self and the realities of the situation.

Step 3: The Egocentricity Index

The Egocentricity Index provides an estimate of self-concern and possibly self-esteem. It is a crude measure of self-attending behavior. If it falls above the average range, it indicates an excessive involvement with the self but, *does not necessarily equate with positive self-esteem unless the reflection response is also positive*. On the other hand, if it falls below the average range, it indicates that self-esteem is lower than should be the case; that is, when comparative judgments are made between the self and others, the result tends to be negative.

The expected or average range of the Index for adults is .33 to .45, but the lower and upper para-

meters of the range increase for younger subjects depending on their age as shown in Table 20.1.

The increase in the values of the expected range for younger people should not be surprising. Youngsters as a group, especially those at the preadolescent ages, tend to be much more self-involved than most adults. That self-centeredness gradually diminishes as the child develops more awareness of the realities of the world and recognizes the importance of others and the values of interpersonal relationships.

Potential Finding 1: When the value for the Egocentricity Index is above average, it suggests that the individual tends to be much more involved with himself or herself than are most others. If one or more reflection responses appear in the record, it indicates that the narcissistic-like feature is strongly embedded in the psychology of the person and is sustaining favorable judgments concerning the self in relation to others. If there are no reflection answers in the record, it signals an unusually strong concern with the self, which easily leads to a neglect of the external world. In many cases, an

Table 20.1 Average Egocentricity Index Ranges for Younger Persons.

Age 5	.55 to .83	Age 11	.46 to .58
Age 6	.52 to .82	Age 12	.46 to .58
Age 7	.52 to .72	Age 13	.41 to .55
Age 8	.48 to .74	Age 14	.37 to .54
Age 9	.47 to .69	Age 15	.33 to .50
Age 10	.47 to .61	Age 16	.33 to .48

Case 13. Self-Perception Related Data for a 29-Year-Old Female.

R	= 25	OBS	= No	HVI = No	Human Content, An & Xy Responses
Fr + rF	= 2	3r + (2)/R	= 0.64	III 6.	D+ Mp.Fro H,Cg P 3.0 GHR
FD	= 1	SumV	= 0	III 7.	Do FC.Mpo 2 (H) GHR
An + Xy	= 0	MOR	= 1	VI 13.	Dd+ Fu (H),Cg 2.5 PER,PHR
H:(H) + Hd + (Hd)	= 1:3			VII 14.	D+ Mpo 2 Hd P 3.0 GHR
[EB = 3:8.0]					

above average Egocentricity Index indicates a high self-regard or estimate of personal worth but, in some instances, this strong concern with the self may signal a sense of personal dissatisfaction. When the latter is true, the protocol typically will contain other evidence of self-degradation and/or problems with social adjustment. Proceed to Step 4.

Case 13 Finding Positive

The value for the Egocentricity Index is .64, well above the upper limit of the average range for adults. The two reflection answers contribute significantly to the elevation of the Index and also provide some confirmation about her extensive self-involvement and her inclination to value herself quite highly.

Potential Finding 2: When the value for the Egocentricity Index falls in the average range of .33 to .45 for an adult (or in the average range for a younger subject), it suggests that the individual is no more or less self-involved than most others.

Potential Finding 2a: If the Egocentricity Index is in the average range, and the record contains one or more reflection answers, it is an unusual finding. This is because the narcissistic-like feature breeds an excessive preoccupation with the self. When the combination of at least one reflection and an Egocentricity Index in the average range occurs, it is probable that the person has some awareness that the presumption of high personal worth may be faulty, and issues of self-doubt are not uncommon.

When this finding is positive for a young adolescent, it is likely to be favorable as it probably indicates the process of social maturation is ongoing. It is a less positive finding for an adult because challenges to the exaggerated sense of personal worth usually provoke an increase in the use of defenses that have been reinforcing in the past. This can lead to a more chaotic and less effective level of psychological functioning, and mood fluctuations are not uncommon. Proceed to Step 4.

Potential Finding 3: When the value for the Egocentricity Index is below average, it is reasonable to assume that the individual's estimate of personal worth tends to be negative. Such individuals regard themselves less favorably when compared to others. This characteristic is often a precursor to depression. This finding is uncommon in records containing reflection, answers. If the Egocentricity Index is below average in a protocol containing a reflection, it indicates that the person is in serious conflict regarding self-image and self-value. The likelihood of mood fluctuations is substantial and behavioral dysfunction is likely. Proceed to Step 4.

Case 12 Finding Positive

The Egocentricity Index of .19 is well below average, and there are no reflections in the record. When judging himself in contrast to others, it is likely that he focuses on features of himself that he perceives as negative. As a consequence, his self-esteem, or sense of personal worth, is much lower than is customary for most adults.

Case 12. Self-Perception Related Data for a 47-Year-Old Male.

R	= 21	OBS	= No	HVI = No	Human Content, An & Xy Responses
Fr + rF	= 0	3r + (2)/R	= 0.19	I 1.	WSo FC'o (Hd), Ay 3.5 GHR
FD	= 3	SumV	= 1	III 6.	D+ Ma.mp.FC'.FD.CFo 2 H,Fd,Cg P 3.0 COP,MOR,GHR
An + Xy	= 1	MOR	= 6	V 12.	D+ Ma.FC'- H,Hh,Sx 2.5 COP,PHR
H:(H) + Hd + (Hd) = 3:3				VII 14.	W+ Mpo 2 Hd P 3.0 GHR
[EB = 4:6.0]				VIII 16.	W+ FMa.CFo 2 A,An,Fd P 4.5 AG,MOR,PHR
				IX 19.	DSO FC'o (H) 5.0 GHR
				X 20.	DS+ Ma.YF.CF.mpo H,Fi,Sc 6.0 GHR

Step 4: *FD* and *SumV*

FD and *Vista* responses relate to introspective behavior. Self-examination usually is regarded as a positive feature through which individuals become more aware of themselves. Optimally, introspection entails the viewing of oneself as objectively as possible, putting aside biases, sets, and emotions, and studying one's characteristics from a realistic perspective. Usually, self-inspection promotes a higher level of awareness, and most people engage in some form of self-examining from time to time to gauge their assets and liabilities more fully. Introspection also involves some risks, as it sometimes represents a deliberate challenge to one's own integrity. If carried to an extreme, it becomes a form of rumination and can breed very discomfoting emotions.

FD answers are related to a proclivity for introspection. Generally, when they appear in a protocol, they are a positive sign, *unless* they occur with a substantial frequency. *Vista* responses are less positive. They also indicate a propensity for self-inspection, but the process causes very negative emotions to occur. As noted in Chapters 15 and 16, *Vista* responses can be associated with situationally related guilt or remorse but, more commonly, they relate to a chronic preoccupation with negative features of the self. In either instance, *Vista* answers signal a preoccupation with features of the self about which the person ruminates, and a byproduct of this is irritating and often painful feelings.

Potential Finding 1: When *R* is at least 17 and there are no *FD* or *Vista* answers in the record,

it is possible that the person may be less involved with self-awareness than is usually the case. People such as this are often more naive about themselves than might be desirable. This finding is common among children and young adolescents. If *R* is less than 17, this postulate is very tenuous and probably should be avoided in the summary of findings. Proceed to Step 5.

Potential Finding 2: When the *SumV* is zero and the value for *FD* is one or two, it can be assumed that the person engages in self-inspecting behaviors somewhat routinely. Usually, this is a positive finding as the process tends to promote reevaluation of the self-image. Proceed to Step 5.

Case 13 Finding Positive

There is one *FD* response in her protocol. This is a positive sign, especially for a person who may overvalue their own worth. It suggests that she does engage in some self-examining, which might lead to a more realistic sense of self. On the other hand, casual self-examination in a person who tends to exaggerate their sense of worth can sometimes provoke a greater tendency to externalize causes for negative circumstances, and simply reinforce an unrealistic sense of self.

Potential Finding 3: When the value for *FD* exceeds 2 or if the value for *SumV* is greater than zero, it indicates that some unusual self-inspecting behavior is occurring. Three or more *FD* answers, in a record *without* *Vista* answers, suggest an uncommon concern for self-image. Such a concern may be positive if it relates to strivings for self-betterment. This is most

Case 13. Self-Perception Related Data for a 29-Year-Old Female.

R = 25	OBS = No	HVI = No	Human Content, An & Xy Responses
Fr + rF = 2	3r + (2)/R = 0.64	III 6.	D+ Mp.Fro H,Cg P 3.0 GHR
FD = 1	SumV = 0.	III 7.	Do FC.Mpo 2 (H) GHR
An + Xy = 0	MOR = 1	VI 13.	Dd+ Fu (H),Cg 2.5 PER,PHR
H:(H) + Hd + (Hd) = 1:3		VII 14.	D+ Mpo 2 Hd P 3.0 GHR
[EB = 3:8.0]			

likely to be true if the Egocentricity Index is in the average range. On the other hand, it may be counterproductive if it merely represents a rumination about oneself. This is probable when the Egocentricity Index is lower than average. If one or more Vista responses are present, regardless of the frequency for *FD*, it signifies a preoccupation with features perceived to be negative, and this is yielding painful feelings.

This finding is not unusual during some stages in the lifecycle, such as puberty and aging, or in proximity to critical life events such as emotional loss, failures, physical or psychological difficulties, and so on. It is also common in the records of people in the early stages of uncovering therapy. Whatever the cause, it indicates that considerable self-focusing is occurring. This finding is very unusual in records containing a reflection answer and probably signals the presence of a serious conflict concerning self-image. When one or more Vista answers appear in a protocol that has a reflection response, it is almost certain that the individual is attempting to contend with the issue of high

self-value versus perceived negative features of the self. Proceed to Step 5.

Case 12 Finding Positive

There are three *FD* responses and one Vista response. This indicates that he is much more involved with self-inspecting behavior than is common, and probably has some unusual concerns about his self-image and sense of personal worth. The presence of the Vista answer is especially important as it suggests that he is ruminating about personal features that he regards negatively. Such rumination usually creates considerable internal pain. It is also important to note that this finding is consistent with the fact that his Egocentricity Index is well below the average range, and the composite seems to indicate that he frequently regards himself very negatively.

Step 5: An+Xy

Anatomy responses are not very common in most protocols and X-ray answers occur far less frequently. Thus, the value for *An+Xy* typically is expected to be zero, or one at most. When the value exceeds one, it usually signifies some unusual

Case 12. Self-Perception Related Data for a 47-Year-Old Male.

R = 21	OBS = No	HVI = No	Human Content, An & Xy Responses
Fr + rF = 0	3r + (2)/R = 0.19	I 1.	WSo FC'o (Hd),Ay 3.5 GHR
FD = 3	SumV = 1	III 6.	D+ Ma.mp.FC'.FD.CFo 2 H,Fd,Cg P 3.0 COP,MOR,GHR
An + Xy = 1	MOR = 6	V 12.	D+ Ma.FC'-H,Hh,Sx 2.5 COP,PHR
H:(H) + Hd + (Hd) = 3:3		VII 14.	W+ Mpo 2 Hd P 3.0 GHR
[EB = 4:6.0]		VIII 16.	W+ FMa.CFo 2 A,An,Fd P 4.5 AG,MOR,PHR
		IX 19.	DSO FC'o (H) 5.0 GHR
		X 20.	DS+ Ma.YF.CF.mpo H,Fi,Sc 6.0 GHR

body concerns and, as the value increases, so too does the likelihood that a preoccupation exists.

Potential Finding 1: If the value for $An+Xy$ is two, the interpreter should be alerted to the possibility that some body concern may be present. This finding should not necessarily be considered as a significant issue concerning the psychological organization of the individual unless the answers have a minus form quality or a MOR special score. If either or both are FQ minus, or have a MOR special score, the likelihood that they reflect an important body concern is increased. This issue will be addressed again in the Step 8 review of contents. Proceed to Step 6.

Potential Finding 2: When the value for $An+Xy$ is three or more, it is almost certain that some unusual body concern or preoccupation is present, regardless of the form quality of the answers or whether any include the special score MOR. This finding is not uncommon among persons who have physical problems. If no health problems exist, it suggests the likelihood of rumination about body and/or self-image and may indicate a disconcerting sense of vulnerability. Proceed to Step 6.

Step 6: Sum MOR

It is not unusual to find a single Morbid content answer in a protocol. They occur most frequently to Card VI in relation to the popular animal skin response. When the frequency of MOR answers exceeds one, it typically signifies that the self-image of the person includes impressions of negative or blemished features. Many factors can cause people to develop negative impressions about themselves. Some result from a general accumulation of adversities or setbacks, while others may stem more directly from specific failures or disappointments concerning educational, occupational, emotional, or social experiences, some of which could be recent. In that context, the history is often an important source from which to understand the

origins of these negative attributions. Regardless of the cause, the impact of these attributions tends to persist and, as the magnitude increases, so too does a pessimistic view of the self. All MOR responses are studied for projected material in Step 8 but, often, the frequency alone will alert the interpreter to the probability that the self-image includes significant impressions of unwanted or damaged characteristics.

Potential Finding 1: When the value for MOR is two, it is probable that some negative features are included in the self-concept that promote a pessimistic view of the self. This finding is unusual in a protocol containing a reflection answer and can signal the presence of conflict concerning self-value or, in some instances, can relate to recent situational events that are perceived as degrading to the highly valued self-image. Proceed to Step 7.

Potential Finding 2: When the value for MOR is three or greater, it is reasonable to assume that the self-image is marked by negative attributions and, in general, thinking often includes a much more pessimistic view of the self than is expected. This finding is extremely unusual in a protocol containing one or more reflection responses and suggests either of two possibilities. It may represent a marked conflict concerning self-image and self-value or, in some instances, it could depict an effort by the individual to exaggerate impressions of being distressed and/or helpless. Proceed to Step 7.

Case 12 Finding Positive

This 21 response record contains six MOR responses, signifying that the self-image is notably marked by negative features, and suggesting that his perception of himself tends to be quite pessimistic. This coincides with earlier findings derived from the Egocentricity Index, the *FD* and *Vista* answers, and offers considerable support for the postulate that he is very preoccupied with concerns about himself, and perceives himself as having characteristics that are unwanted, and unwelcome by others.

Case 12. Self-Perception Related Data for a 47-Year-Old Male.

R	= 21	OBS	= No	HVI = No	Human Content, An & Xy Responses
Fr + rF	= 0	3r + (2)/R	= 0.19	I 1.	WSo FC'o (Hd), Ay 3.5 GHR
FD	= 3	SumV	= 1	III 6.	D+ Ma.mp.FC'.FD.CFo 2 H,Fd,Cg P 3.0 COP,MOR,GHR
An + Xy = 1		MOR	= 6	V 12.	D+ Ma.FC' - H,Hh,Sx 2.5 COP,PHR
				VII 14.	W+ Mpo 2 Hd P 3.0 GHR
				VIII 16.	W+ FMa.CFo 2 A,An,Fd P 4.5 AG,MOR,PHR
				IX 19.	DSo FC'o (H) 5.0 GHR
				X 20.	DS+ Ma.YF.CF.mpo H,Fi,Sc 6.0 GHR
H:(H) + Hd + (Hd)	= 3:3				
[EB = 4:6.0]					

Step 7: Human Content Response Codings

This step involves two parts, each of which focuses on human content answers from different, but related perspectives. Each part can provide some general clues about self-image and/or self-value and, when taken together, the derived information is often quite useful. The interpretations generated from this step relate to the merging of the theory of identification with findings concerning the response process and the distal properties of the blots.

Information about the response process and distal features of the blots strongly supports the notion that, at times, people taking the test will have the option of giving a human content answer. The theory of identification suggests that when that option occurs, individuals are likely to select those answers that are most congruent with their own identity and discard possibilities that are incongruous with impressions of themselves.

The first part of this step involves the study of the frequency of Pure *H* responses. The second part studies the coding features of the human content answers. It is predicated on the assumption that the coded features of the response will, in some instances, convey information about the impressions that the person has about himself or herself. The hypotheses derived from these two steps often support postulates generated earlier but, in some cases, the findings may be discrepant with earlier propositions. In either event, they should be considered as being very tentative until they are integrated with conclusions drawn from projective material in Step 8.

Step 7a: $H:(H)+Hd+(Hd)$

The ratio $H:(H)+Hd+(Hd)$ is useful only when the number of human content responses is *three or more*. Nonpatients and outpatients progressing well in treatment both tend to give more Pure *H* responses than the composite of other human content answers. At the other extreme, persons with serious adjustment problems usually give fewer Pure *H* responses than the composite of other human content answers.

H is the only content coding category used for answers that include whole real people. *Hd* answers also represent aspects of real people, but they include a wide variety of features. The majority are faces or heads, some of which are common, but it is not unusual for an *Hd* answer to be given for a variety of other body features, such as legs, hands, eyes, sex organs. Obviously, the parenthesized human content categories (*H*) and (*Hd*) do not refer to real people. Thus, forms of human content other than Pure *H* are likely to be selected with a higher frequency by those whose self-image is based less on identifications with real persons and more on imagination or internal representations that coincide less with reality.

It is very important to emphasize that the data concerning this ratio must be approached judiciously. There are two reasons for this caution. The first, and possibly most important, is the fact that the expected frequencies for all human content differ by *EB* styles. Table 20.2 shows the average number of each of the four human content scoring categories for 500 nonpatients divided by response styles and also subdivided into

Table 20.2 Means for Human Content Scoring Categories plus Some Frequency Data for 500 Nonpatients Subdivided by Range of *R* and Response Styles.

Category	<i>R</i> = 14 to 16 Response Styles*				<i>R</i> = 17 to 27 Response Styles*				<i>R</i> = 28 to 55 Response Styles*			
	I	A	E	L	I	A	E	L	I	A	E	L
	<i>N</i> = 18	22	17	16	116	54	129	38	33	16	24	17
<i>H</i>	3.8	1.8	1.6	1.7	4.8	2.5	2.5	1.8	7.1	3.7	2.1	2.9
(<i>H</i>)	1.0	1.2	1.3	0.7	1.2	1.7	1.1	1.0	1.2	0.9	2.0	1.4
<i>Hd</i>	0.4	0.5	0.6	1.0	0.9	0.9	0.8	1.6	1.7	2.7	1.4	2.6
(<i>Hd</i>)	0.1	0.2	0.1	0.6	0.1	0.2	0.3	0.5	0.4	0.4	0.1	1.3
All Human Content	5.3	3.6	3.6	4.0	7.0	5.3	4.7	4.9	10.4	7.7	5.6	8.2

* I = Introversive; A = Ambitient; E = Extratensive; L = Avoidant

three ranges of *R*. On average, introversives give between two and three more human contents per record than either ambitents or extratensives, and most of those are Pure *H* responses. Interestingly, persons with an avoidant style (high *Lambda*) tend to give slightly more human contents than ambitents.

The second reason for caution when studying the $H:(H)+Hd+(Hd)$ ratio concerns the matter of *R*, especially as related to both brief and long records. The fact that critical distal features of some blots promote *H*, *Hd*, or parenthesized human contents, can be particularly important for brief records. Persons who give fewer than 17 responses typically have approached the test defensively. Often, they are not well prepared for the test and they view it as potentially threatening.

If a defensive person restricts himself or herself to the obvious distal features of the blots in forming responses, there is an increased likelihood for *H* responses to be given to Cards I (*D4*) and/or III (*D9*), (*H*) answers to be given to Card IV (*W* or *D7*) and Card IX (*D3*), and an *Hd* response to be given to Card VII (*D9*). If those are the only human content answers given, the resulting $H:(H)+Hd+(Hd)$ ratio would be 1:3 if all but the Card I *H* are given, 2:2 if all but the Card IX response are included, or 2:3 if all five answers are given.

In any of these scenarios, the data for the ratio would not be very encouraging when viewed using the premise that a greater frequency of Pure *H* answers is expected from those whose self-image

is based largely on identifications with real people or experiences with real people.

The Table 20.2 data indicate that when *R* is less than 17, only the introversive group averages substantially more *H* than the sum of the other human contents. Similarly when *R* exceeds 27 responses, all groups give more human contents, but a substantial proportion of that increase is in *Hd* responses for all groups. Thus, the expectation that *H* is likely to exceed the composite of other human contents is lessened considerably in both brief and lengthy records for all groups except introversives.

Potential Finding 1: When the sum of human contents is three or more, it is reasonable to presume that the self-image of the person is based more on experience than imagination if:

- 1a. The person is introversive and the value for Pure *H* is at least two points greater than the sum of other human contents.
- 1b. The person is not introversive and the value for Pure *H* is equal to or greater than the sum of other human contents when *R* is between 17 and 27.
- 1c. The person is not introversive and *R* is less than 17 or greater than 27, the value for Pure *H* is greater than, equal to, or no more than one point less than the sum of other human contents.

When any of these conditions is true it simply suggests that social interactions have probably

contributed significantly to formulations regarding the self. However, the finding *should not* be translated to mean that self-image and/or self-value are necessarily accurate or realistic. Proceed to Step 7b.

Potential Finding 2: When three or more human contents have been given, it is reasonable to assume that self-image and/or self-value tends to be based largely on imaginary impressions or distortions of real experience if:

- 2a. The person is introversive and the value for Pure *H* is less than two points than the sum of other human contents.
- 2b. The person is not introversive and the value for Pure *H* is less than the sum of other human contents when *R* is between 17 and 27.
- 2c. The person is not introversive and *R* is less than 17 or greater than 27, and the value for Pure *H* is one or more points less than the sum of other human contents.

Persons who are positive for any of the three conditions are often less mature, and frequently have very distorted notions of themselves. This more limited self-awareness sometimes serves very negatively in decision-making and problem-solving activity and creates a potential for difficulties in relating to others. Proceed to Step 7b.

Step 7b: Human Content Response Codings

The codings of the responses that contain human content often provide clarification regarding the findings in Step 7a. For instance, if all human content answers in a record are Pure *H*, a tentative conclusion drawn from Step 7a would be that the person's impressions of himself or herself are based largely on social interactions. However, if those same Pure *H* responses are all *FQ-*, and some or all include critical special scores, the 7a postulate would probably be incorrect. Thus, it is necessary to review the codings for homogeneous characteristics, both positive and negative.

The coding of any single answer is not afforded special interpretive emphasis although there may be exceptions to this when the coding features of a response are especially striking. Ordinarily, however, the interpretation will be developed by weighing the positive and negative features and forming a general proposition based on the findings from both 7a and 7b.

There are no hard and fast rules for interpreting codings, but the experienced interpreter should be able to easily differentiate responses which include positive versus negative features. For example, consider the following codings:

D+ Ma.FCo 2 H, Cg 4.0 COP
Do Mpo Hd MOR
DdSo FC'u (Hd)
D+ Ma.FQ- H, Cg 4.0 DR

The first is clearly the most positive. It has an ordinary form quality, a Pure *H* content, an *Ma*, the modulated use of chromatic color, and has a *COP* special score. All of these are positive features and, although no single coding should be interpreted alone, it has those features that might be expected from a person whose self-image is reasonably sturdy.

The second response also is *FCo* but the content is *Hd* and, more important, it includes the special scoring of *MOR*, which may indicate that the self-image includes a sense of damage or inadequacy.

The third is marked by four less desirable features. It is a *Dd* location that includes *S*, it includes an achromatic color determinant, and also has an *(Hd)* content. Human content responses containing chiaroscuro features, especially *Vista*, diffuse shading, or achromatic color occur more frequently among persons who are uncomfortable about their self-image.

The fourth coding is probably the least favorable. Even though it contains a Pure *H*, it also includes a *Vista* determinant, has a minus form quality and a *DR* special score.

Human content answers that are *FQ--* occur more commonly among those who are confused or have distorted notions about their self-image. When human content response codings include any of the six special scores related to cognitive slippage or dysfunction, it may signify distortions in thinking about the self. As noted, human content answers that include the special score MOR suggest a sense of damage.

The presence of an *Hx* content signals that the person attempts to deal with issues of self-image and/or self-value in an overly intellectualized manner which may ignore reality. This is even more likely when an *Hx* content appears in a response that also includes an AB special score. People who give answers that contain both *Hx* and AB often have ideational impulse control problems, and as a result many features of self-image are grossly distorted.

Again, it seems important to stress that, in most instances, the coding for a single response should not be afforded undue weight in formulating an interpretation. The objective is to study the codings for all of the human content responses and, if practical, develop a general proposition about self-image and/or self-value. Some very general guidelines for differentiating positive and negative features are shown below. They are not all inclusive and should not be applied rigidly. Instead, they are presented to call attention to features that are likely to be positive or negative but it should be obvious that features listed as positive can occur in responses also containing negative features and vice versa.

Generally Positive

W or D locations without S
Form Quality of + or o
M in Pure H responses
FC when chromatic color used
Absence of chiaroscuro features
No color-shading or shading blends
Absence of contents An, Bl, Ex, Hx
Absence of special scores except COP

Generally Negative

Dd locations or S in W or D responses
Form Quality minus
M in (Hd) responses
Pure C when chromatic color used
Presence of chiaroscuro features, especially Vista or achromatic color
Presence of color-shading or shading blends
Presence of contents An, Bl, Ex, Hx
Presence of special scores other than COP, especially MOR, AB, INCOM, FABCOM, ALOG, CONTAM

Case 12 Findings

The protocol of this extratensive man contains six human content answers, and the ratio $H:(H)+Hd+(Hd)$ is 3:3. All are W or D, but three contain S. Five have an o form quality and one has a minus FQ. Three are Pure H. Three include blends (two with CF, two with mp, two with FC', two are color shading blends, one with FC' and one with YF, and one with an FD). Two other human content answers that are not blended also contain FC' determinants. Tentatively, the four answers containing the FC' determinant, and the two containing m, should be considered as negative features. Interestingly, only one of the six human content answers contains a clearly negative special

Case 12. Self-Perception Related Data for a 47-Year-Old Male.

R	= 21	OBS	= No	HVI = No	Human Content, An & Xy Responses
Fr + rF	= 0	3r + (2)/R	= 0.19	I 1. WSo FC'o (Hd), Ay 3.5 GHR	
FD	= 3	SumV	= 1	III 6. D+ Ma.mp.FC'.FD.CFo 2 H,Fd,Cg P 3.0 COP,MOR,GHR	
An + Xy	= 1	MOR	= 6	V 12. D+ Ma.FC'- H,Hh,Sx 2.5 COP,PHR	
				VII 14. W+ Mpo 2 Hd P 3.0 GHR	
				VIII 16. W+ FMa.CFo 2 A,An,Fd P 4.5 AG,MOR,PHR	
				IX 19. DSo FC'o (H) 5.0 GHR	
				X 20. DS+ Ma.YF.CF.mpo H,Fi,Sc 6.0 GHR	
H:(H) + Hd + (Hd) = 3:3					
[EB = 4:6.0]					

score, MOR, while two others include a COP special score. However, one of the COP answers has a minus FQ , and also contains an FC' determinant. Overall, this mixture seems to indicate that his self-image has become rather fragile and confusing for him. Apparently, he is unsure about himself and his identity, and often perceives himself in a way that provokes negative feelings that he is prone to internalize. This is inconsistent with his history of lengthy occupational and marital success, and seems to indicate a recently developed process of psychological disorganization or deterioration.

Case 13 Findings

There are four human content answers in the record of this extratensive woman and the ratio $H:(H)+Hd+(Hd)$ is 1:3, suggesting that her self-image is probably less reality based and derived more from imagination or distortions of experiences. Three of the four answers have D locations, and all have appropriate form quality. Two are blended, with one involving a reflection determinant. However, other than the fact that only one of the four involves a Pure H content, the codings for these answers are unremarkable and provide no added useful information regarding self-image.

Step 8: Searching for Projected Material

Although the Rorschach procedure does not require or force projection to occur, the semi-ambiguous nature of the blots plus the requirements of the task permit responses to be given that are characterized by translations of the stimulus field or embellishments of the reported object(s) that go beyond the characteristics of the field.

Such responses almost always include projected material. They occur in most every record, but the frequency varies considerably, and rarely will include all of the answers that have been given. In fact, it is possible for a person to give a reliable, valid protocol without including any projected material in the responses.

Two types of projection appear in Rorschach responses. The first involves some sort of misperception. As described in Chapter 11, the distinctive or critical distal features of the blot or blot areas limit the range of responses that fit the blot features. All blots or blot areas can be identified as something, but none can be identified as everything. When a person defines a figure or an area of a figure in a way that is incongruous with the features of the figure or the area, it is a minus answer. If the minus is not caused by a neurophysiologically related impairment, it can be assumed that it reflects a projection of mental activity in which internal psychological sets or operations have superceded a reality oriented translation of the field. Thus, when searching for projected material, all minus answers are carefully reviewed.

Often, a second kind of projection is more easily identified and interpreted. It may occur in minus responses, but it also appears frequently in answers that do not entail distortions of the stimulus field. It is the instance in which the person goes beyond a simple translation of the field, or departs from the field. These sorts of embellishments can appear in any answer, and tend to reflect something about the person who gave the response, because there is nothing in the field *or* in the task that provokes them. The majority of answers that

Case 13. Self-Perception Related Data for a 29-Year-Old Female.

R	= 25	OBS	= No	HVI = No	Human Content, An & Xy Responses
Fr + rF	= 2	3r + (2)/R	= 0.64	III 6.	D+ Mp.Fro H,Cg P 3.0 GHR
FD	= 1	SumV	= 0	III 7.	Do FC.Mpo 2 (H) GHR
An + Xy	= 0	MOR	= 1	VI 13.	Dd+ Fu (H),Cg 2.5 PER,PHR
H:(H) + Hd + (Hd)	= 1:3			VII 14.	D+ Mpo 2 Hd P 3.0 GHR
[EB = 3:8.0]					

include this kind of projection do not require much interpretive translation as the embellishment is usually obvious by its departure from, or elaboration of the field. Usually, this sort of projected material appears in responses containing human content, movement answers, and those containing special scores such as MOR, AG, or COP but, as noted above, any response may be embellished.

It is unusual for the projected material from any single answer to provide a wealth of interpretive information concerning the individual. Instead, it is the *classes* of projected material that generate the most reliable interpretive yield. As embellishments or themes become redundant in a record, the interpreter gains greater assurance about features of the individual that are being represented. For instance, an accumulation of movement responses in which the word "playful" occurs, or a substantial frequency of answers in which objects are described as "grotesque" or "damaged" offer abundant information about self-image or self-esteem. At times, however, redundant themes may not be very obvious. Words such as "beautiful," "attractive," "appealing" may be scattered in the protocol, or comments such as "the face isn't clear," "he seems to be turned away," and "it's a back view of him," may occur in responses that are widely separated in the record.

There are two approaches that an interpreter might use in searching out projected material. One is to simply read the entire record, from first to last answers. There are pros and cons to this approach. On the positive side, it permits the interpreter to review the stream of activity that has occurred as the person moves from figure to figure. On the negative side, the interpreter must be cautious about attempting to interpret every answer. Ordinarily, many answers do not include projected material, and to assume otherwise simply clouds the process.

The second approach is more systematic. It entails the study of answers by classes or groupings, that is, reviewing sets of homogeneous answers selected because they are most likely to contain projected material that can be interpreted in a

meaningful way. Once the classes of answers have been studied, a final scan of the entire record is done to search for embellishments not already identified.

This approach is illustrated here using four classes of responses (*FQ*-, MOR, human movement/human content, other movement) and ending with a scan of the entire protocol. The first two classes, minus and MOR responses, usually produce information about negative features of the self, while the second two groupings, human movement/human content and other movement answers, yield a broader array of findings, both positive and negative. Some answers will fall into more than one class, but the redundancy only serves to ensure that the responses are given thorough consideration and interpreted in an appropriate context.

8a: Minus Responses

This class of answers is selected first because it is likely to reflect internal psychological sets that may have influenced the mediational activities of the individual. It is important to emphasize that some minus responses may not be products of projection. They could result from faulty processing or mediation. Thus, the content of the minus answers should be approached conservatively.

Projected material in minus answers should be rather obvious, either because of homogeneous content or common verbiage. If projected material is not obvious in the minus responses, attempts to interpret them should be abandoned because attempts to glean meanings from contents that are not clear become counterproductive to the interpretive process.

8b: MOR Responses

Responses coded for MOR almost always reveal some of the negative impressions a person may have about himself or herself, but some MOR answers occur rather frequently. They are the Card II animals in a fight that have been hurt, and the Card VI animal that has been run over. They should not be disregarded as being meaningless, but any

hypotheses generated from them should be considered as *very* tentative and not accepted into the final summary unless cross validated by other data.

Usually, the accumulation of synonymous wording used across several MOR answers, such as hurt, broken, battered, ruined, provides the most reliable information regarding the conceptualization of the self. At times, however, one or two MOR responses will be unique or dramatic and can provide a rich input to the understanding of self-image. When MOR answers also have a minus form quality it tends to confirm the likelihood that the answer is a direct projected representation of the self.

8c: Human Movement and Human Content Responses

This grouping of answers has a high probability of representing some of the characteristics with which the individual identifies or is preoccupied. Usually, it will provide useful information in forming postulates about self-image or self-esteem. The human movement responses are particularly important because they contain embellishments that go beyond the distal properties of the field and, typically, self-representation is more likely to be obvious if human activity is attributed in the answer.

It is often useful to give special attention to the characteristics of the movement involved. It should be noted, however, that the stimulus features of three blots do tend to promote *M* definitions (Card III, *D1*, people lifting or pulling; Card VII, *D1/D9*, children looking or playing; Card IX, *D3*, clowns or monsters leaning or fighting). Interpreters should be conservative about forming postulates from any of these responses unless support for those postulates is evident in other answers.

8d: Animal and Inanimate Movement Responses

The *FM* and *m* answers constitute the final class of responses to be reviewed. Conservatism is very important when generating interpretive hypotheses from animal movement responses. As with some *M* responses, the stimulus features of three blots tend to provoke *FM* classifications. These

include Cards I and V (*W*, a winged animal in flight), and Card VIII (*D1*, animals climbing). Postulates formed from *FM* answers to these areas usually should be based mainly on unusual features in the answers.

Typically, the most meaningful projected material in *FM* and *m* answers will be apparent by the homogeneity of features or verbiage across several answers, such as most being passive, aggressive, markedly emotional. As with other classes of response, redundancy is important in forming any postulates because the more often a theme or characteristic occurs, the more likely it reflects a dimension of self-image or self-esteem.

8e: Search for Other Embellishments

The last phase in the search for projected material entails a review of any responses that have not already been studied to determine if any contain embellishments that might reflect direct projected self-representation. Some responses that have not been read may contain dramatic or unusual wording or elaborations.

Findings from these answers should be used cautiously, and usually can be merged easily with postulates developed earlier. In some records, especially those that are impoverished for movement answers or special scores, the material in these responses can be important, as the accumulation of embellishments and unusual wording leads to the formulation of postulates concerning self-image that might not be developed otherwise.

This scan of answers also provides the opportunity to read from first to last responses, and glean a broad impression about the flow of cognitive and projected activity that occurred as the person moved through the blots. For instance, some people tend to be defensive when responding to the first few blots, and then become more open as they begin to feel comfortable with the task. Others do the reverse. They begin by offering very elaborate answers to the first two or three cards, but then become more conservative and less articulate.

Case 12. A 47-Year-Old Male.

Card	Response	Inquiry
I	1. God thts an ugly thg it rem me of an old African mask of ss E: I thk if u tak ur tim ull fnd st else too S: Oh yeah well ok let me hav som tim	E: (Rpts S's resp) S: Yeah it seems to hav thos big ears out hre & th white spaces for th eyes & mouth lik thy use for th witch doctr routines & tht k o business thy use th black ones lik ths
	2. Christ Idk mayb a bat flyg mayb Idk for sur	E: (Rpts S's resp) S: Well u can use thse for th wgs & th cntr prt cb th body lik if u wre lkg dwn on it th wgs r spred out lik it mite b flyg u kno
	3. U kno I can c a bell in thre too S: How many shld I find E: Its up to u S: Thts all	E: (Rpts S's resp) S: Yeah c th shap of it ths is th clappr in th centr (outlines)
II	4. Thts sur a mess lik st got killd or st it got lik blood all ovr it & a hole right smack in th cntr	E: (Rpts S's resp) S: Idk wht th hell it is j a lot of bld & fur lik th remains of an A E: Can u sho me wht thr is thr to mak it ll tht S: Th red is th bld & th rest is th fur c th drk lines lik wet fur & th red is blood out hre (points) & dwn hre & on th fur, th way its drawn thre makes it lk wet if I look at it ths way
	v5. Th white ll ice too if I turn it ths way	E: (Rpts S's resp) S: Idk its j white lik ice if u lk ths way th othr way its j a hole
III	6. Back to Africa ths ll 2 canibals or st dancg around a cauldron getg ready to cook st Idk wht tht cntr is tho	E: (Rpts S's resp) S: Well it ll thyr getg ready to cook ths meat thy got hangg up lik some A's tht thy skind & hung up E: Sho me some of the prts so I can c it S: Thse r th canibals I didnt mean canibals thy eat ppl j lik natives thyr black & skinny c th legs & heads & thy got ths codpiece stickg out & ths is th meat hangg up back hre bhind thm its skind meat E: Skinned meat? S: Its red lik meat ready to cook
	v7. If I lk ths way th cntr ll a slingshot I used to have one a long time ago strik tht 1 out	E: (Rpts S's resp) S: U kno it dosnt lk too good lik tht now E: Sho me how u wre cing it S: Well lik th cntr is th rubbr prt & th sids r th sling but thres no handl thts wht I forgot bfore no handle
	8. U kno dwn hre its lik an airplan flyg betwn 2 drk clds	E: (Rpts S's resp) S: Oh yeah well th litl white prt ll th pln & thse big buggers out hre re me of dark clouds, lik storm clds r drk lik tht, u get th impression tht it is back from the clds, lik thy r so big & its so litl
IV	9. Christ how abt anthr dead A lik it was opend up & stretchd out to dry	E: (Rpts S's resp) S: Well it j ll it's an A tht sbdy killd & opend up lik ths c thse cb feet & whts left of th head up hre it lks wet lik whn u skin an A th fur is all wet c it has th colrs & it lks wet th way th lines go

Case 12. Continued.

Card	Response	Inquiry
	10. Hey mayb a nail no a golf tee	E: (Rpts S's resp) S: Yeah (lafs) Im a golf nut I used to b c rite hre th form to it is lik one
V	11. Anothr one j lik th rest lik an A opend up ths one ll a rabbit or smthg	E: (Rpts S's resp) S: Yeah lik it was spred aprt stretchd out but not wet lik th othrs its j stretchd c th legs out hre & whts left of the head its all darker lik thy get when thy dry
	12. U kno ths'll sound weird but its lik a guy on top of a wm ovr hre mayb on a blanket lik at nite cuz its all dark, sorta shadowy lik u can't mak thgs out really very well	E: (Rpts S's resp) S: Well its hard to c but its thre c ths is his head & his ass up hre & u cant c her so well but ths wb her leg lik hes getg to know her u kno E: Sho me a bit more I dont c it very well S: Well mayb thyr on a blanket or st or th blanket is ko around thm, c th rough edges & ths is th top of his head & mayb thts not his ass mayb its her arms locked around him & hre r thr legs
VI	13. Thrs anothr one of thos dead A's spred out again u can really c the fur on ths 1 pretty good w all the spots & lines	E: (Rpts S's resp) S: J spred out, not stretchd lik th othr ones, j lik a polecat or st bec of th markgs, th drk cntr is lik whr the backbone was befor it was removd lik sbody was makg a rug out of it
VII	14. Lik 2 kids lkg at eo j kinda peaceful lik	E: (Rpts S's resp) S: Yeah lik 2 littl girls 1 hre & th othr ovr hre j frm th waist up, thy got pony tails stickg up, thyr not doing anythg, j lookg
	15. Th Grand Canyon or st lik it	E: (Rpts S's resp) S: J hre (points) c how deep it lks lik it gos way dwn in E: Im not sur why it lks deep S: Its all black & dark dwn in lik really deep
VIII	16. Mayb a cpl of hungry rats feedg on the carcass of som A	E: (Rpts S's resp) S: Wel thrs not much left thr of th A j som bones in th midl prt (points) & som flesh dwn hre & thse r th rats E: Flesh? S: Wel I dont mean skin lik exposd flesh cause its all pinkish & orang lik undr th skin ldk abt th blu but it mite b skin, th rest is bones & ths bastards r pickg at it
	17. U kno tht blu ll ice too but not real ice mor lik tht stuf u c in thse plastic ice buckets tht u put in th freezr & freez it & thn fits in th top of the bucket	E: (Rpts S's resp) S: Yeah its th damnest stuf u freez it & u don't hav to use ice anymor evrythg keeps cold in the chest wo real ice pretty efficient I supos its all blue lik ths
IX	18. Damned if I can tel abt ths 1 unless its som ko explosion lik evrythg is gog upwrd	E: (Rpts S's resp) S: Well u j get th impresion of a helluva lot of movement, lik an explos, just blowg up (gestrs outwrd w hands) E: Im not sur wht makes tht impression S: J th form of it, lik bam
	v19. Tht cntr cb a ghost lik	E: (Rpts S's resp) S: It has ths big head w the white slits r th eyes & th white shroud lik th bdy but j th cntr whit not th rest

(continued)

Case 12. Continued.

Card	Response	Inquiry
X	v20. Ths way I c a skydivr cōmg dwn it's lik ones tht let out smok	E: (Rpts S's resp) S: J ths litl prt (D5) is the guy & th diff green colorg maks it ll th colrd smok tht he's lettg out lik thy do at fairs & thgs, & th whit prt here is his chute, he's got his arms up directg the lines & the smoke is trailing out around the chute
	21. Th whol thg ll a lot of germs ud c undr a microscp all diff colors & shapes	E: (Rpts S's resp) S: Its kinda gruesom j a lota thgs we nevr c but thyr on evrythg j crawlg around undr a microscp lik amoeba & bacilae & tht sort of thg, u sur got a funny test hre

Step 8: Case 12 Review

8a

There are two minus answers. Interestingly, both occur on Card V, which probably has the lowest frequency of minus answers of any of the 10 figures. The first (response 11) "Another one just like the rest, an animal opened up . . . a rabbit or

something," implies a perseverative preoccupation with morbidity. It is "not wet like the others . . . darker like when they get dry." It is a good illustration of projection that tends to suggest a sense of futility as well as a sense of serious damage. It conveys both the feeling of helplessness that he has and the pessimistic attitude that he probably harbors about his situation.

Case 12. Sequence of Scores.

Card	No.	Loc.	No.	Determinant(s)	(2)	Content(s)	Pop	Z	Special Scores
I	1	WSo	1	FC'o		(Hd),Ay		3.5	GHR
	2	Wo	1	FMa.FDo		A	P	1.0	
	3	Ddo	24	Fo		Sc			
II	4	WS/	1	CF.TFu		Ad,Bi		4.5	MOR
	5	DSv	5	C'		Na			
III	6	D+	1	Ma.mp.FC'.FD.CFo	2	H,Ad,Fd,Cg	P	4.0	COP,MOR,GHR
	7	Do	3	Fu		Id			PER
	8	DS+	7	ma.FD.C'Fu	2	Sc,Cl		4.5	
IV	9	Wo	1	mp.TFo		Ad		2.0	MOR
	10	Ddo	30	Fo		Sc			
V	11	Wo	1	mp.FY--		Ad		1.0	MOR
	12	D+	4	Ma.FC'--		H,Hh,Sx		2.5	COP,PHR
VI	13	Wo	1	TF.YFo		Ad	P	2.5	MOR
VII	14	D+	2	Mpo	2	Hd	P	3.0	GHR
	15	Do	6	VFo		Ls			
VIII	16	W+	1	FMa.CFo	2	A,An,Fd	P	4.5	AG,MOR,PHR
	17	Dv	5	CFo		Sc			
IX	18	Wv	1	mao		Ex			
	19	DSo	8	FC'o		(H)		5.0	GHR
X	20	DS+	10	Ma.YF.CF.mpo		H,Fi,Sc		6.0	GHR
	21	W/	1	FMa.CFu		A		5.5	DR

The second minus (response 12) is intriguing, partly because he identifies it as "weird," but mainly because of the sexual content, "a guy on top of a woman . . . at night . . . shadowy . . . you can't make things out very well." In the inquiry, he tries to avoid being very precise, and also offers an unusual comment, "like he's getting to know her you know." It is a substantial distortion of the distal properties, directly emphasizing a sexual preoccupation, but also suggesting the possibility of feelings of impotency (when they get dry) or an important interpersonal loss. Collectively, these two minus answers do raise important questions about his feelings of adequacy.

8b

One of the six MOR responses in the record has already been reviewed above. The remaining five all involve dead animals. The first (Card II, response 2) is "something that got killed, and has a hole in the center, blood and the rest is fur . . . like wet fur." The second (Card III, response 6) is "cannibals . . . ready to cook this meat . . . like some animal they skinned." The third (Card IV, response 9) is "another animal . . . opened up and stretched out to dry . . . it looks wet." The fourth (Card VI, response 13) is "another one of those dead animals, with the backbone removed," and the last (Card VIII, response 16) is "hungry rats feeding on the carcass of some animal . . . these bastards are picking at it."

The composite of MOR answers seems to convey very clearly that he has a sense of being victimized and seriously damaged. It is interesting to note that two of the MOR answers contain an unusual emphasis on "wet," a texture response, which raises a question about his marital relationship, and his other interpersonal relations.

8c

There are six human content responses, four of which include *M*. The first (Card I, response 1), an *FC'* response that does not include *M*, does contain a rather telling embellishment, "God, that's an ugly thing . . . an old African mask."

Assuming this is a self-representation, it is not very favorable. The second, which does include *M* and *FC'*, has been mentioned earlier (Card III, response 6). It also has a negative quality, "two cannibals or something, dancing around a cauldron, getting ready to cook something . . ." In the inquiry he denies that they are cannibals, "just like natives . . .," and adds, "they got this codpiece . . .," a protective piece worn in the front of breeches by men in the 15th and 16th centuries. This seems related to the third human content answer (Card V, response 12), which is also an *M* with *FC'*. It is the sex response that was already discussed in 8a.

The fourth human content answer (Card VII, response 14) contains *M*, and probably is the most positive thus far, "two kids, looking at each other, just kind of peaceful." In the inquiry he notes, "they're not doing anything, just looking." It is a passive response that may suggest a yearning for less complicated times. The fifth human content answer is the fourth in this group containing an *FC'* determinant (Card IX, response 19), "a ghost." In the inquiry he notes white slits and a white shroud. Although it is not coded MOR, it conveys a sense of morbidity. The last human content answer (Card X, response 20), his fourth *M*, is creative and idiosyncratic. It is, "a skydiver coming down . . . like one's that let out smoke . . . and the smoke is trailing out." He puts a positive spin on the answer, "like they do at fairs," and implies control "his arms up directing the lines." However, it may be reasonable to suggest that this response is a way of calling attention to his sense of helplessness. The answer contains an *S* location plus *YF* and *m* determinants, and unnecessarily calls attention to the smoke trailing out around the chute.

The evaluation of these six answers tends to support the postulates that were developed earlier about his self-image. It is more negative than positive, and probably includes many features that he regards as being unwanted. Among those is a noticeable sexual preoccupation which, like other perceived negative features, he tries hard to

conceal. At the same time, he feels uncertain and helpless about his identity, and does not experience the emotional/interpersonal supports that seem very important to him.

8d

There are three *FM* and six *m* answers. The first *FM* response (Card I, response 2), "a bat flying," seems rather benign. The remaining two include considerably more projected material. One (Card VIII, response 16) has been discussed earlier. It is "the hungry rats feeding off the carcass of some animal." The emphasis seems to be on the carcass and the fact there "is not much left there." The third *FM* (Card X, response 21) is his last answer, "a lot of germs you'd see under a microscope . . . things we never see but they're on everything." It may convey the impression that he feels attacked, or even overwhelmed by things about which he has little awareness.

The *m* responses may be more revealing because of the unusual frequency by which they have occurred. The first (Card III, response 6), discussed earlier, involves meat that is hanging behind the cannibals, ready to be cooked. The second (Card III, response 8) may intimate something about how he perceives his current situation, "an airplane flying between dark clouds . . . storm clouds . . . they are so big and it's so little." The third and fourth *m* answers (Card IV, response 9), "another dead animal . . . opened up and stretched out to dry," and (Card V, response 11) "an animal opened up . . . like a rabbit or something" have already been discussed. The fifth (Card IX, response 18) may reflect the intense feelings that he has, "some kind of explosion, like everything is going upward . . . a helluva lot of movement . . . just blowing up." The last *m* (Card X, response 20) is the smoke from the skydiver that was discussed earlier.

The composite of projected material gleaned from the *FM* and *m* answers serves to reaffirm the notion that his self-image is, at best, tattered, and marked by a strong sense of helplessness or futility.

8e

Six of his 21 responses have not been reviewed to this point. The first (Card I, response 3) is a bell, and is not obvious for self-representation. The second and sixth (Card II, response 5; Card VIII, response 17) do have some similarities that may be important. The Card II answer is ice, while the Card VIII answer is "not real ice," but something that "keeps cold in the chest, pretty efficient I suppose." On a speculative level, these answers may relate to his tendency to conceal feelings, giving an outward appearance of being more well put together than is really the case. The third answer that has not been reviewed also has an interesting embellishment. Initially, he describes it as a slingshot, but asks to retract the answer in the inquiry. When pressed, he notes that "there's no handle, that's what I forgot before, no handle." The fourth answer (Card IV, response 10), a golf tee, has no obvious significance, while the fifth (Card VII, response 15) is his one Vista answer. It is the Grand Canyon, described as "black and dark down in like really deep."

Step 8: Case 12 Summary

The projected material in his answers appears to contain a relatively uniform theme. It involves self-perceptions of being threatened, victimized, and damaged. He seems to feel helpless, but tries hard to conceal his concerns about adequacy. He conveys a sense of futility and, at some level, may potentially be very explosive. He appears to feel as if there are no emotional supports available to him, and this raises an important question about the integrity of his marriage and the superficiality that he apparently attributes to his interpersonal world.

Although the data summarized here focuses mainly on the issue of self-perception, it is impossible to avoid giving some attention to the very noticeable affective disorganization that seems to exist, and the rather overwhelming sense of helplessness that he has about his situation.

Case 13. A 29-Year-Old Female

Card	Response	Inquiry
I	1. My God that's ugly, it sort of ll a bat E: Take ur time & look som mor S: Oh, let me look more then	E: (Rpts S's resp) S: Its all black, when I first saw it all I cld thk of was ugh! E: I'm not sure I c it as u do S: Oh well u cld make these wgs & ths wld b the body prt, just a bat I guess
	v2. If I turn it ths way it ll a funny ghost house, like it is blowing in the wind	E: (Rpts S's resp) S: Oh its lik in cartoons when u c the spooky ghost houses & thy sort of move like the wind was blowing, c the windows aren't square, their funny shape creates that impression to me, ths part is the chimney
II	3. Oh wow, that ll a couple of bears stepping in a bucket of paint or s.t., like black bears gettg in trouble	E: (Rpts S's resp) S: Well ths part is the bears, kind of bent over c their feet r in ths red bucket down here & thy r gettg paint all over them & thyr touchg their paws together up here, just lik thy play lik in Yellowstone park, I've seen it on the TV
	<4. If u turn it ths way red part ll a little red bird, lik a humming bird, I thk thyr red	E: (Rpts S's resp) S: Well it just ll tht to me, like a red humming bird, c the head is ths part (points) & the wing goes back to here & the little tiny feet r down here
	5. U kno if I cover everything but ths prt it ll a forest fire way off on a mountain top	E: (Rpts S's resp) S: Well its lik way off in the distance & the red is the fire & ths darker part is the mountain, its burng on the side & near the top
III	6. Oh thats a funny one, it ll a lady lookg in the mirror at herself (laughs)	E: (Rpts S's resp) S: She's lik bending inward to get a better look at herself, she has a big purse in her hand & her hair is pulled back tight, c her hi heels & some jewelry or s.t. at her neck
	7. Ths thgs ll red devils that r falling, I dk what ths cntr thg is	E: (Rpts S's resp) S: Well u c littl red devils now & then in cartoons & thyr lik ths but thy ll thy r falling here, like upside dwn w thr long tails out behind them
IV	8. Yuck, its like two snakes on the sides	E: (Rpts S's resp) S: C here (points) lik thy r coiled up w their heads looking around, I don't lik snakes at all, c ths is the head & here is the tail
	v9. There's two lions here too, one on each side	E: (Rpts S's resp) S: Thyr just standg there, c one on each side w the long tail sticking out, c ths is the head & the body (points), just lik two lions
V	10. There's a rabbit in the cntr	E: (Rpts S's resp) S: C the big ears & the little legs & the rabbit face on it so it must be a rabbit
	11. There's two little birds there too I don't lik ths one much either	E: (Rpts S's resp) S: U can hardly c them, c here (points) one on ech side, just really tiny little birds, just the outline of thm

(continued)

Case 13. Continued.

Card	Response	Inquiry
VI 12.	I dk what the top cb, mayb the bottm cb a bear skin but the top doesn't fit	E: (Rpts S's resp) S: Well it really cb, it looks lik one w the legs, lik it was flat & it looks kind of like fur too, c all in the middle (rubs fingers)
13.	U kno ther r two dolls ther too	E: (Rpts S's resp) S: Well just this part (points), like in full gowns, I used to have one like this & I bought one like it for my niece, c the full skirt & the head & top part of the body, there's one on each side
VII 14.	Children, 2 children, lookg at e.o., thyr cute I lik ths one	E: (Rpts S's resp) S: Its just the upper parts of them, like the chest & the heads & they r like twins, girls, c the hair is all fixed up pretty on top like u do with a comb
v15.	If u look ths way its like pieces of Col Sanders chicken	E: (Rpts S's resp) S: It ll 4 legs and 2 breasts, its all fried up, breaded u kno like it comes in those plastic buckets E: Fried up? S: Well it ll it is breaded & fried, when u do tht it gets dark in some places & lite in some places, like this is
>16.	This way it ll a toy dog, lik all fuzzy	E: (Rpts S's resp) S: It has little legs & here's the ear & the tail stickg out, it ll its artificial fur, its not lik the other one, the bear rug, that looked real, ths one ll artificial, fuzzier & probably softer
VIII 17.	Oh look at the colors, its lik a Christmas tree, no more an ornament for one	E: (Rpts S's resp) S: Its just so colorful, it really strikes u after all those other black ones. Well, its like two thgs on the side, designs all the pretty designs in the middle & its pointed on the top like an ornament
<18.	Oh ths way the side designs ll an animal & he's crawlg ovr thgs & there's water & he can c himself in it	E: (Rpts S's resp) S: Well here's the little animal, c his head & body & little legs & its lik he's steppg carefully ovr these othr things, I dk what but ths w.b. water & he can c himslf in it, c lik reflected dwn here
v19.	This way ths part ll a pretty bed jacket, I used to have one lik it	E: (Rpts S's resp) S: It has the arms & the full body like a bed jacket & its got a filmy appearance to it the way tht its colored E: A filmy appearance? S: Well its beautiful, I mean the orange & pink but when it was made they made the colors go together lik, I don't kno what u call it but it looks hazy sort of, filmy the way they made the colors blend together
IX 20.	Oh, like a pot boiling over	E: (Rpts S's resp) S: Well if u've ever left a pot on the stove too long, mayb lik cooking cabbage, I did that once, it ll ths, a mess, flames & cabbage all over, c the orange is flames & the green is cabbage & the pink is lik the burner
<21.	This way u can c the head of an alligator in there	E: (Rpts S's resp) S: C right in here, just the long nose & the eye, its really like one I don't like them

Case 13. Continued.

Card	Response	Inquiry
X	22. Oh my, so many thgs, like a painting of s.t., mayb like from Alice in Wonderland	E: (Rpts S's resp) S: It just so much & so pretty, its not anythg definite, just lik a painting, an, a, abstrct of Alice in Wonderland but Alice isn't there E: I'm not sure I c it lik u do S: Oh its just all colors lik an abstract painting of Alice in Wndrld wld b
	23. I suppose these c.b. crabs	E: (Rpts S's resp) S: Ugh, c all the legs here & here (points), just lik crabs or spiders yuck
	24. There's a rabbit's head in ther too, u can c the littl white nose on him, its cute	E: (Rpts S's resp) S: C rite here in the middl prt w the long ears, its just the face, & the little white nose
	25. That pink is gross, I thot it was bld but I thk that it ll the cotton candy u get at a fair	E: (Rpts S's resp) S: Its just pink & fuzzy looking like cotton candy E: Fuzzy looking S: U kno, different colors lik make it fuzzy, just lik cotton candy, its all sticky goocy u get it on u'r fingers

Case 13. Sequence of Scores.

Card	No.	Loc.	No.	Determinant(s)	(2)	Content(s)	Pop	Z	Special Scores
I	1	Wo	1	FC'o		A	P	1.0	
	2	WSo	1	mpu		Art,Id		3.5	
II	3	D+	1	FMa.FC.FC'o	2	A,Id,Hh	P	3.0	PER,COP
	4	Do	2	FCu		A			
	5	Dd/	99	ma.CFFDo		Fi,Ls		3.0	
III	6	D+	1	Mp.Fro		H,Cg	P	3.0	GHR
	7	Do	2	FC.Mpo	2	(H)			GHR
IV	8	Do	4	FMpo	2	A			
	9	Ddo	99	FMp-	2	A			
V	10	Do	7	Fo		A			
	11	Ddo	24	Fu	2	A			DV
VI	12	Do	1	FTo		Ad	P		
	13	Dd+	99	Fu	2	(H),Cg		2.5	PER,GHR
VII	14	D+	2	Mpo	2	Hd	P	3.0	GHR
	15	Wo	1	FYo	2	Fd		2.5	
	16	Do	2	FTo		(A)			
VIII	17	Wv	1	CFo	2	Art			
	18	W+	1	FMa.Fro		A,Na	P	4.5	
	19	Do	2	FC.FYu		Cg			PER
IX	20	W/	1	ma.CF-		Hh,Fi,Fd		5.5	PER,MOR
	21	Ddo	99	Fo		Ad			
X	22	Wv	1	C		Art			AB
	23	Do	1	Fo	2	A	P		
	24	DSo	5	FC'o		Ad		6.0	
	25	Dv	9	C.T		Fd			

Step 8: Case 13 Review

8a

There are two minus answers. The first (Card IV, response 9) is to a very small *Dd* area at the bottom of *D6*, "two lions here too . . . just standing there with the long tail sticking out." It is a benign response, although some may become caught up in speculation about the symbolism of a wild, aggressive animal with a long tail. Those sorts of speculations are very risky. The second minus (Card IX, response 20) has more projective richness, "a pot boiling over . . . like cooking cabbage. I did that once, it all looked like this, a mess, flames and cabbage all over." It conveys a potential for volatility or lability.

8b

There is only one MOR response, the pot boiling over, which has already been discussed.

8c

There are four human content answers, three of which contain *M*, and all three are passive. The first (Card III, response 6) is one of her two reflection answers, "a funny one, . . . a lady looking in the mirror at herself . . . bending inward to get a better look at herself . . ." It is a self-preoccupation response, and the wording "funny," and "to get a better look" may convey something negative, but that is very speculative. More positive features seem to be represented by the adornments, "big purse . . . high heels . . . and jewelry," which are somewhat exhibitionistic. The second also contains *M*, "red devils that are falling . . . you see red devils now and then in cartoons . . . like upside down with their long tails out behind." The notion of devils is not very positive, and the likelihood to cartoons being involved is given more often by younger persons rather than adults.

The third human content answer (Card VI, response 13) involves a very small area (including *Dd25*) at the upper tips of *D1*, "two dolls . . . in full gowns, I used to have one . . . I bought one like it for my niece . . ." It is also an exhibitionistic

response involving an unreal, but attractive figure. The fourth answer in this composite (Card VII, response 14) is "two children, looking at each other, I like this one . . . like twins . . . the hair is all fixed up pretty . . ." It also involves attractiveness but, like some of the other answers, seems to be a less mature response than might be expected from an adult. At least three of these four answers include an emphasis on appearance.

8d

There are four *FM* and three *m* answers. The first *FM* answer (Card III, response 3), is "bears stepping in a bucket of paint or something . . . getting into trouble . . . getting paint all over them . . . just like they play in Yellowstone Park, I've seen it on the TV." Although a Popular answer, she makes it less common by adding the playful, "getting into trouble" feature. The second *FM* (Card IV, response 8), is "two snakes . . . coiled up with their heads looking around, I don't like snakes at all." This is a more ominous content than any studied previously and, possibly, could represent a different aspect of her self-image. The third *FM* (Card IV, response 9), "two lions," was discussed in 8a. The fourth *FM* (Card VIII, response 18) is the second reflection answer, "an animal and he's crawling over things and there's water and he can see himself in it." In the inquiry she notes that "he's stepping carefully over these other things . . .," which seems to convey a sense of being unsure about herself and her world. None of these responses are especially dynamic for projected material although the first, "bears playfully getting into trouble," and the last, "stepping carefully over things," may suggest a sense of uncertainty about herself.

The three *m* answers are a bit more revealing. The first (Card I, response 2) is, "a funny ghost house, like it is blowing in the wind . . . like in cartoon when you see the spooky ghost houses and they sort of move like the wind was blowing." As a self-representation, it is not sturdy. The second (Card II, response 5), is "a forest fire way off on top of a mountain." It is a more negative or

threatening content which she identifies as "way off in the distance." The third answer in this composite is the "pot boiling over" response to Card IX, discussed in 8a. These responses convey a sense of fragility and tend to raise questions about the sturdiness of her inflated sense of self.

8e

There are 14 answers remaining and some should contain projected embellishments. The first (Card I, response 1) is intriguing, not because of content, but because the affective display associated with it, "My God that's ugly . . . a bat . . . when I first saw it, all I could think of was ugh!" It is probably not the best way to begin the test. The second (Card II, response 4) is "a little red bird . . . the little tiny feet." It may reflect some fragility. The third (Card V, response 10), is "a rabbit" that has "little legs," and the fourth (Card V, response 11) is "two little birds . . . really tiny little birds." They also may suggest a sense of fragility. The fifth (Card VI, response 12) is "a bear skin," which appears unremarkable except for being the first of three texture answers. The sixth (Card VII, response 15) is, "pieces of Colonel Sanders chicken, fried up . . . breaded and fried." Food answers typically connote some dependency features.

The seventh answer in this collective is her second texture response (Card VII, response 16), "a toy dog, like all fuzzy . . . it's not like the bear rug, that looked real, this one looks artificial, fuzzier, and probably softer." She makes an interesting distinction between real and artificial fur, but any attempt to translate that is very speculative. The eighth answer (Card VIII, response 17) is, "Oh, look at the colors . . . a Christmas tree, no more an ornament for one . . . it's just so colorful, it really strikes you . . . all the pretty designs." The fact that it is a "pretty" ornament is similar to some of her human content answers, but her noticeable affective comments may be more important. The ninth answer (Card VIII, response 19) is, "a pretty bed jacket, I used to have one . . . it's got a filmy appearance . . . it's beautiful . . . it

looks hazy sort of . . ." It is an answer that emphasizes both attractiveness and vulnerability.

Her tenth answer (Card IX, response 21) is reasonably benign, "the head of an alligator," except for her unnecessary comment, "I don't like them." The eleventh answer (Card X, response 22) is somewhat more intriguing, "Oh my . . . a painting of something, maybe like Alice in Wonderland . . . so pretty . . . not anything definite . . . an abstract . . . but Alice isn't there." The fantasy content is important, but the affective quality is even more so. The next answer (Card X, response 23) is benign for projected material, "crabs," but she again unnecessarily injects a comment, "yuck." The thirteenth answer in this collective (Card X, response 24) is "a rabbit's head . . . it's cute." Her last answer may reveal more about herself than most any of the others (Card X, response 25). She states, "That pink is gross, I thought it was blood but I think that it looks like the cotton candy you get at a fair . . . it's pink and fuzzy looking . . . different colors make it look fuzzy . . . it's all sticky and gooey if you get it on your fingers." It is her third texture response that includes an obvious denial by which she converts a negative impression ("I thought it was blood") into something more positive but also something to be cautious about ("sticky gooey if you get it on your fingers").

Step 8: Case 12 Summary

It is hard to ignore the affective intensity, but also the passivity that marks many of her answers. Clearly, she perceives herself in a framework that includes considerable emphasis on attractiveness, and works hard to cast an impression of herself that emphasizes positive features. At the same time, she conveys the impression of feeling delicate, and possibly even fragile. Generally, she seems less mature than most adults. Although she probably gives the outward appearance of a person who takes delight in her immediate environment, she also harbors a subtle apprehensiveness about possible threats. She seems prone to deny unpleasantness to protect her very positive self-image and,

at some level, seems to have a potential for considerable volatility if she feels seriously threatened. The findings concerning her interpersonal perceptions may be very important to gaining a better understanding of this potential.

SUMMARIZING FINDINGS

As with other clusters, the findings should be integrated and summarized. Care should be taken to include positive as well as negative features and, when possible, contradictory postulates should be resolved or explained.

Case 12: Summary

This man seems to regard himself quite negatively. His self-esteem or sense of personal worth is quite low (Step 3), and he apparently ruminates a great deal about himself. This self-rumination often focuses on features that he perceives to be unwanted liabilities, and this leads to frequent painful experiences for him (Step 4). This is somewhat puzzling in light of his seeming success in marriage and in his work. Nonetheless, he is very pessimistic about himself, and has developed a self-image that is fragile, somewhat confused, and includes a marked sense of being injured or damaged (Steps 6 and 7). He feels victimized, threatened, and is very preoccupied about matters of adequacy, which also seems to include sexuality, but appears to work hard to conceal his feelings about these issues. Nonetheless, the test data exude a sense of helplessness, and gives the impression that he feels very futile about his situation (Step 8).

Case 13: Summary

She is an extremely self-centered person who is prone to hold herself in high regard (Steps 2 and 3). She may be introspective at times, but it is unlikely that this is to challenge herself. Rather, it may be a way of gaining some reassurance about her inflated sense of personal worth (Step 4). Her perception of herself, and of others, is not grounded very well in real experience. Instead, it seems more likely to be

based on fantasy or imagination, or the distortions of real experience (Step 7). In this context, she is probably less mature than most adults. She is very concerned with issues of attractiveness, and seems to work hard to make sure that she, and her immediate world, are regarded in a positive light. She probably feels more fragile or vulnerable than she will openly admit (Step 8). She also is likely to attribute any negative events in her life to external causes (Step 2). In fact, she seems likely to deny things that are distasteful, and place them in an artificially positive perspective (Step 8). It is possible that she may become quite volatile in defense of her self-image when seriously threatened (Step 8).

RESEARCH AND CONCEPTS CONCERNING SELF-PERCEPTION VARIABLES

REFLECTION RESPONSES

The presence of one or more reflection answers in a protocol signifies that a major element exists in the self-concept of the individual. It is a marked tendency to overvalue personal worth. This narcissistic-like feature is natural among children, but usually disappears during adolescence as formal operations begin, and social relationships take on a new importance. When this inflated sense of personal worth persists into late adolescence or adulthood, it tends to dominate perceptions of the world and transactions with it. It does not necessarily predispose pathology, but it can impair the development of a mature balance between a healthy concern for one's own integrity and the integrity of others.

This narcissistic-like feature creates stylistic qualities within the individual that are very influential in decisions and behaviors. The influence occurs because of the need for frequent reaffirmation or reinforcement of the exaggerated sense of personal pride. It often contributes significantly to the development of motives for status. If success or recognition is achieved, it reduces the likelihood that this kind of exquisite

self-centeredness will promote pathology or maladjustment. On the other hand, failures to obtain reaffirmation of the high self-value usually lead to frustration and negativism, and elaborate systems of personal defense are developed through which the integrity of the naive belief concerning the extraordinary personal worth can be protected. Rationalization, externalization, and denial typically form the core of these defenses. As these defenses are used excessively, they can create a predisposition to pathology or maladjustment. Adolescents and adults with this feature often find it difficult to establish and maintain deep and meaningful interpersonal relations. In some instances, this provokes self-examining and, if that occurs, internal conflict can arise reflecting a struggle to maintain the inflated self-value versus some awareness that it may not be valid. If the environment has been especially ungiving of reinforcement, asocial and/or antisocial sets can evolve rather easily.

Whereas reflection responses appear in about 8% of the nonpatient sample of 600 adults, the proportions tend to be higher among patient groups. For instance, about 12% of 535 outpatient protocols contain at least one reflection response (Exner, 2001). The proportion is considerably greater among the records of nonpatient children in which the percentages range from 32% at age 5, 28% at age 8, 21% at age 11, 14% at age 14, and 20% at age 16. Reflection answers have considerable temporal stability, with retest correlations ranging from .78 to .82 in long-term studies, and .80 to .89 in short-term studies.

The proportion of reflection responses varies considerably among small samples of adult nonpatients when studied by occupation. These are groups from which protocols were usually collected for use as controls in various investigations. For instance, at least one reflection appears in 19 of 63 (29%) records of persons in the clergy, and 9 of 37 (24%) protocols contributed by surgeons or surgical residents. Winter and Exner (1973) noted that 7 of 18 protocols collected from very successful performing artists, with no

psychiatric history, contained at least one reflection. Exner, Weiss, Coleman, and Rose (1979) obtained the protocols of 39 successful theatrical dancers, none of whom had a psychiatric history. Fourteen of the 39 records (36%) contained at least one reflection answer. These data seem to offer indirect evidence that the presence of the narcissistic-like feature associated with reflection does not necessarily doom a person to pathology or maladjustment, especially if the individual is able to co-exist in an environment that reaffirms the notion of high personal worth routinely.

Much of the validation research related to reflection responses is intertwined with the coding for *pair* (2) responses and the Egocentricity Index ($3r+2/R$). Separate codings for reflections (*Fr*, *rF*) and *pairs* (2) evolved somewhat fortuitously from a study comparing four groups of 20 persons each. The groups included inpatient depressives who had made a recent suicide gesture, inpatient male homosexuals, imprisoned character disorders who had been diagnosed as antisocial personalities, and adult nonpatients drawn mainly from a college population. Frequency data revealed that reflections appeared in more than 75% of the records of the homosexual and antisocial groups, but not at all among the depressives and in only three nonpatient protocols. Because the reflection answers were all based on the symmetry of the blots, it was decided to tally the frequency with which the symmetry of the blots was used to report identical pairs of objects. The tally revealed that the homosexual group gave significantly more pairs than did the other groups, and that the depressives gave significantly fewer pairs than the other groups (Exner, 1969).

Subsequently, Raychaudhuri and Mukerji (1971) studied reflections and pairs by using protocols from four groups of 15 persons each in a prison population. The groups included active homosexuals, passive homosexuals, sociopaths, and controls. They found that both homosexual groups gave significantly more reflections than either of the other two groups, and that sociopaths gave significantly more reflections than

the controls. They found the number of pair answers to be significantly high in both homosexual groups, and among controls when contrasted with the sociopathic group. The composite of findings concerning reflections and pairs suggested that such answers might, in some way, be related to self-involvement.

That postulate was first tested using a sentence completion blank, constructed following a format similar to one used by Watson in a study of narcissism (1965). The blank used included 30 stems, most of which contained the personal pronouns *I*, *me*, or *my*. It was administered to 750 nonpatient adults and responses were scored for whether the answer focused on the self (*S*), such as, *I worry*: about my future, or focused on others (*O*), such as *I worry*: about the homeless people of the world. Eighty individuals, 40 with the highest number of *S* responses, and 40 with the highest number of *O* responses were administered the Rorschach by 14 examiners. Reflection answers appeared in the records of 37 of the 40 high *S* persons, as contrasted with only two records of the high *O* individuals. The high *S* group also gave nearly 2.5 times the number of pair responses as the high *O* group. The blank, entitled the *Self Focus Sentence Completion* (SFSC), was then standardized on a population of more than 2,500 adults (Exner, 1973). The 30 persons from each extreme of the resulting distribution were administered the Rorschach by 16 examiners. Reflection and pair responses appeared more than twice as often among the 30 high *S* subjects as among the records of the high *O* group.

Exner (1978) presented data concerning 429 outpatients who had agreed to participate in a long-term treatment effects study. Therapist ratings, collected during the first two months of the study, regarding motivation for change, revealed that 38 of 43 persons rated most negatively, had pretreatment Rorschachs that contained at least one reflection answer. During the first 12 months of the study, more than 150 patients terminated prematurely, and included all 38 persons who had reflections in the pretreatment record, and who

had been rated negatively for motivation to change by their therapists.

Evidently, the narcissistic-like feature represented by reflection answers does not change quickly or easily as the result of treatment. Exner and Sanglade (1992) studied Rorschach changes following brief (12 to 15 sessions) and short-term (9 to 12 months) treatment. They found that four of 35 patients treated with brief therapy had reflection answers in their pretreatment records and continued to give such answers in a retest taken after 8 to 12 months. Five of 35 patients in the short-term group gave at least one reflection answer in their pretreatment records, and continued to give at least one such response when retested a second time, 24 to 27 months after beginning treatment, even though all had terminated nearly a year earlier. The Exner and Sanglade findings concerning short-term treatment are similar to those reported by Weiner and Exner (1991). They reported on two groups of 88 patients each. One group participated in short-term treatment (9 to 12 months), and 10 of those patients had reflection responses in their pretreatment records. The same 10 persons also gave reflection answers in a third retest, taken about four years after the first test, and two years after treatment had been terminated. Twelve of 88 patients in the second group, treated with a dynamic, long-term model, had reflection answers in their pretreatment test, but only 6 continued to give reflection answers in their third retest, administered after four years. However, all 12 gave reflection answers in their first retest, after 12 to 14 months of therapy, and 9 gave such answers in their second retest, administered 27 to 31 months after beginning treatment.

Although the presence of a reflection answer does not necessarily mean that pathology or maladjustment exists, it is found with a noticeable frequency in several problem groups. For instance, Hilsenroth, Fowler, Padawar, and Handler (1997) found that reflections relate to *DSM-IV* diagnostic criteria for narcissistic personality disorder, and a self-report measure of the disorder. They wisely

note that their findings should not be interpreted concretely, and caution that the occurrence of one or more reflections in a protocol should not be used as a basis from which to assume the presence of a narcissistic disorder. Their findings do support those reported earlier by Gacono, Meloy, and Heaven (1990) concerning narcissism and hysteria in antisocial personalities, and Gacono and Meloy (1994) regarding narcissism. Gacono, Meloy, and Bridges (2000) have also reported finding at least one reflection answer in more than 40% of the records from each of three forensic groups, psychopaths, sexual homicide perpetrators, and non-violent pedophiles.

THE EGOCENTRICITY INDEX

The early findings concerning pair and reflection answers prompted a decision to combine both into a single variable that would also account for the number of responses in a record. The analysis leading to the creation of this variable involved the SFSC scores and Rorschach data for 325 nonpatient adults. The decision to weigh reflections with a value of three in the Index resulted from a discriminant function analysis designed to differentiate the relative weights of each of the two Rorschach variables and, using the frequency data for each, identify the quintile on the SFSC distribution into which a person's Egocentricity Index score would fall. The results indicated that reflections have a geometric-like property, and tend to identify individuals falling in the upper two quintiles. The weighting of three in the Index for reflection answers represents a conservative averaging of that property.

The first validation study concerning the Index focused on behavioral data, seemingly related to self-centeredness. Twenty-one male candidates for two engineering positions in a large manufacturing firm were administered several psychological tests, including the Rorschach, by three examiners naive about the nature of the study. Subsequently, candidates were interviewed by a member of the personnel staff of the

corporation. The interviews were conducted in a 12 by 17 foot office, which had an 8 by 8 foot one-way vision mirror on one wall. Each candidate was escorted to the office by a receptionist and invited to be seated next to a desk to await the interviewer. The mirrored wall was to the left of the candidate. Interviewers arrived no earlier than 10 minutes later, and a video camera was used to film the candidate during the first 10 minutes after being seated. The tapes were reviewed, and the amount of time each candidate spent viewing himself in the mirror was tallied. The range of mirror viewing time for the group was from 6 to 104 seconds, with a median of 49 seconds.

The data were used to divide the group, using a median split, and eliminating the candidate at the midpoint. The average mirror viewing time for the upper half was 68.5 seconds, and 27.1 seconds for the lower half. The 10 protocols of candidates in the upper half contained six with reflections and 103 pair responses, whereas the 10 candidates in the lower half contained no reflections and 68 pair responses. The groups were significantly different for both variables, and for the Egocentricity Index (Upper 10 = .476, $SD = .13$, Lower 10 = .298, $SD = .14$, $p < .01$). The first 10 minutes of the interviews were audio recorded, and then tallied for the number of times the candidate used the personal pronouns, I, me, or my during that segment. The scores ranged from 57 to 148. A rank order correlation comparing that distribution with the distribution of values for the Egocentricity Index yielded a ρ correlation of .67, $p < .01$. The three candidates who gave the six reflection answers had the highest frequency of personal pronoun use, ranging from 119 to 148.

A variety of other findings have contributed to sorting out the interpretive usefulness of the Egocentricity Index. Exner (1974) used ratings on the Inpatient Multidimensional Psychiatric Scale (IMPS) for 180 patients. The ratings were completed during the first week of hospitalization, and again by different raters six to eight weeks after discharge. The ratings were used to differentiate

the patients into groups of "improved" and "unimproved." Rorschachs were administered at about the same times the ratings were done. The admission Rorschachs for the patients who did not have depression as a major symptom ($N=106$), showed a mean Egocentricity Index of .474 ($SD=.11$). The patients who had depression as a major symptom ($N=74$) had a significantly lower mean Egocentricity Index, .278 ($SD=.12$). The data from the postdischarge Rorschachs for the patients rated as unimproved were very similar to the admission data (Nondepressed $M=.493$, $SD=.13$; Depressed $M=.272$, $SD=.10$). The data for the patients rated as improved showed a shift toward the mean for nonpatients (Nondepressed $M=.385$, $SD=.09$; Depressed $M=.324$, $SD=.10$).

Exner, Wylie, and Bryant (1974) collected anonymous peer nominations from 37 group psychotherapy patients, participating in one of four groups, after the fourth month of treatment. A 30-item form, with two entries (most and least) for each item was used. The items included a variety of interpersonal preferences and behaviors, such as most and least trusted, attending a party with, seeking advice from, loaning a car to, sensitive to others, and so on. Ten of the 37 patients had produced reflections in their Rorschachs, administered prior to treatment. Seven of the 10 were consistently ranked "least" for 11 of the 30 items, and all 10 were ranked "least" for the "seeking advice from" and "telling problems to" items. The mean Index for those 10 patients (.57), was substantially higher than for 10 other patients (.47) who received the most positive nominations. The 10 patients who were mentioned least frequently had a substantially lower mean Index (.28).

At one point in researching the Index, it was postulated that it might relate to characteristics such as field dependence and/or locus of control. However, Exner, Kuhn, Schumacher, and Fishman (1975) were unable to establish any significant relationships between the Index and either the Field Dependence-Independence Phenomenon, as measured by the rod and frame, or Locus of Control as measured by the I-E Scale. Exner and Murillo

(1977) followed the posthospitalization adjustment of 44 schizophrenics for 36 months. They were from a group of 70 multiple admission schizophrenics who had participated in a study involving treatment with phenothiazines and psychotherapy or ECT and psychotherapy. All 44 sustained enough improvement to remain in outpatient care, and the third-year post-discharge behavioral evaluations indicated that almost all were able to function with reasonable effectiveness in their environments. The pretreatment Egocentricity indices for all 44 patients were significantly higher than average, ranging from .49 to .71. Data from Rorschachs administered approximately three years after discharge, revealed an Egocentricity Index range of .31 to .43 for 20 patients who had been treated with ECT plus psychotherapy. Postdischarge Rorschach data for the 24 patients treated with drugs plus psychotherapy remained consistently higher, ranging from .51 to .62. In this instance, the much higher Egocentricity Index of the drug-treated group does not appear to have created a significant handicap. Apparently, self-involved people are less prone to malfunction provided the environment accepts self-centeredness.

Although a high Egocentricity Index may not be a liability in many situations, a lower than average Index appears to portend far more adjustment hazards. Exner and Murillo (1975) followed 77 patients diagnosed with depression for six months after being discharged from the hospital. They found that 16 of 22 patients who were readmitted had Egocentricity indices of less than .30 at discharge, whereas only 4 of 55 patients who did not relapse had an Index of less than .30. Low Egocentricity indices tend to appear with a much greater frequency among the protocols of individuals with obsessive styles, such as obsessive-compulsives, phobics, and psychosomatics. A lower than average Index is very common in the records of adults who commit suicide, and loads positively into the Suicide Constellation (Exner & Wylie, 1977). In a cross-validation study of the Suicide Constellation, it was also

found that higher than average Egocentricity Index values also load positively in the Suicide Constellation (Exner, Martin, & Mason, 1984).

Thomas, Exner, and Baker (1982) used the Gough Adjective Checklist (ACL) with 225 college students to study the Egocentricity Index. Each student completed the ACL twice during the same session, in a counterbalanced design, once with the instruction to "describe yourself," and once with the instruction to "describe yourself as you would like to be." A difference score between the two self-ratings was calculated for each person, and the 20 students falling at each extreme were recruited to take the Rorschach. The average difference score for students in the upper extreme was 9.4 and in the lower extreme was 38.9, the latter showing the greatest discrepancy between the "real" and "ideal." The mean Egocentricity Index for the upper extreme group was 48.9 ($SD = .09$), and 11 of the records contained 16 reflection answers. The mean Index value for the group in the lower extreme was .31 ($SD = .12$), and none of the records contained reflection responses ($p < .01$).

The temporal consistency for the Egocentricity Index is quite substantial, with correlations ranging from the mid .80s to low .90s for both brief and long-term retests. Long-term retest correlations are considerably lower for children through age 14, after which it appears to have about the same stability as for adults (Exner, Thomas, & Mason, 1985). Actually, the data for younger clients provides some indirect support for the notion that the Index relates to self-involvement. Children are generally quite self-centered, especially during the earlier developmental years, and this seems to be illustrated by the gradual decline in the means for the Index from ages 5 through 16. At age five, non-patient children show a mean of .69, with a mode of .60. By age 9, the mean drops to .57 with a mode of .55. At age 11, the mean is .53 and the mode is .50, and by age 16 the mean is .43, with a mode of .50. Children with behavior problems tend to have Egocentricity Index values higher than nonpatients, while withdrawn children tend to have values that, typically, are lower than nonpatients (Exner, 1978).

Greenwald (1990) has found that the Egocentricity Index correlates significantly with other measures of self-esteem. Brems and Johnson (1990) compared the Index to scores from the *MMPI-2* and the Beck Depression Inventory. They suggest that the Index might have a relation to introversion and introspection rather than self-centeredness. Caputo-Sacco and Lewis (1991) have noted that adolescents in a psychiatric population who have low Egocentricity Index values tend to have higher T-scores on the *MMPI* Depression Scale. Holaday, Armsworth, Swank, and Vincent (1992) noted that values for the Index tend to be lower among children and adolescents who have been traumatized, while Collucci, Pellicciotta, Buono, and Di-Nuovo (1998) reported finding very low Index scores among a group of intellectually disabled. Hall (1995) reported that characterological delinquents tend to have significantly lower Egocentricity indices than do neurotic delinquents, and A. Smith (1995) found that severe psychopathic adolescents are prone to have higher values on the Index than do those judged to be moderately psychopathic. Weiner and Exner (1991), reported that a change from a too high or too low Egocentricity Index value to the average range occurred significantly more often among both long- and short-term patients who were rated as improved approximately two years after beginning treatment, as contrasted with those who were rated as unimproved.

Collectively, the accumulated data regarding the Egocentricity Index suggest that it provides an estimate of self-concern and possibly self-esteem. It is a crude measure of self-focusing or self-attending behavior. Higher than expected values indicate that the person tends to be more involved with himself or herself than are most others. When a reflection contributes to a high value, it indicates that the narcissistic-like feature is strongly embedded in the psychology of the person, and tends to sustain favorable judgments concerning the self in relation to others. When there are no reflections in a record with a high Index, it signals an unusually strong concern

with the self. This can easily lead to a neglect of the external world. In many cases a higher than average Index indicates a highly positive estimate of personal worth, but in some instances this unusual preoccupation with the self may signal a marked sense of dissatisfaction with oneself. When the Index is lower than expected, it is reasonable to assume that the person's estimate of personal worth tends to be negative. He or she regards themselves less favorably when compared to others. This characteristic is often a precursor to depression. This finding is very uncommon in records containing reflection answers. If it is positive in a protocol containing one or more reflection answers, it probably indicates that the person is in conflict regarding self-image and self-value.

FORM DIMENSION RESPONSES

Vista and Form Dimension responses both appear to have a relation to the process of taking distance and self-examining. As discussed in Chapter 14, Vista responses signal the presence of some irritating affective experience that is being produced by self-inspection. *FD* answers generally are a positive sign, unless they occur with a substantial frequency. Ideally, the record of an adolescent or adult will have no Vista answers and the value for *FD* will be one or two. Such a configuration suggests that the person engages in self-inspecting behaviors somewhat routinely and, in general, the process can be beneficial as it tends to promote reevaluation of the self-image.

Vista answers are quite uncommon in the protocols of preadolescent children. However, beginning at age 13, the frequencies increase considerably, and between 10% and 15% of the records of nonpatient adolescents do contain a Vista answer. This is not necessarily surprising as considerable self-inspecting tends to occur during adolescence and, at times, the focus is often on elements of the self with which the subject is dissatisfied. *FD* answers occur more frequently among youngsters, but the proportions of records containing *FD* are modest until age 10. *FD*'s appear in at least two-thirds of

the records of nonpatients between the ages of 10 and 16.

When there are no *FD* or Vista answers in the record of an adolescent or adult, it is possible that the person may be less involved with self-awareness than is usually the case. People such as this tend to be more naive about themselves. On the other hand, if the value for *FD* exceeds two, or if the value for *SumV* exceeds zero it suggests that some unusual self-inspecting behavior is occurring. This is not necessarily an atypical feature during some stages in the lifecycle, such as puberty and aging, or in proximity to critical life events such as affective loss, failures, physical or psychological difficulties. Whatever the cause, this finding confirms that considerable self-inspecting is occurring. When this occurs in a protocol containing a reflection response, it probably signals the presence of a conflict state concerning self-image. If the Egocentricity Index is lower than average, it suggests that the unusual frequency of self-inspecting probably relates to the negative self-value held by the individual.

FD was first identified by a separate coding in the early development of the Comprehensive System (Exner, 1974). Klopfer and Kelley (1942) had included them, but only those for which the unarticulated use of shading seemed probable. The impetus for considering a separate coding was provoked by a study of 64 inpatients who had been placed on a suicide watch. Their records averaged 3.24 *FD* responses, with at least two *FD* appearing in 55 of the 64 records and, at first glance, it appeared that *FD* might be related to depressive features common in persons preoccupied with self-destruction. However, a review of protocols from 100 outpatients, who did not have depression as a presenting complaint, yielded a mean *FD* of 2.4, with more than one *FD* appearing in 56 of the 100 records. This contrasted with a mean *FD* of 1.26 for the protocols of 100 nonpatients (Exner, 1974). Those findings led to the postulate that *FD* might relate to introspection, the logic being that outpatients in the therapeutic routine are encouraged to

be self-examining. Subsequently, three studies were completed, the results of which appear to support this postulate.

The first involved a review of 380 protocols from outpatients and nonpatients. It was noted that introverted persons, both patients and nonpatients, average significantly more *FD* responses ($M=2.42$; $SD=0.94$) than do extroverts ($M=0.93$; $SD=0.91$). This suggested that *FD* is related to delay and/or internalization. In a second study, 40 adults were selected from a waiting list at an outpatient facility, and randomly assigned, 10 each, to four "holding" groups. They were informed that the assignment of individual therapists would probably occur within two to three weeks but, while waiting assignment, they could participate each week in two group sessions, each lasting about one hour. They were informed that the group sessions served as an introduction to treatment, and focused on the development of treatment plans and objectives.

The group sessions, conducted by an experienced social worker, were videotaped, and the audio material on the tapes for the first three sessions was scored by three raters who had no knowledge of the nature of the study. They used a two-dimensional grid to record whether the verbal material was self or other directed, and whether the content referred to the past, present, or future. The 40 patients were divided into two groups of 20 each for the purposes of data analysis, using a median split of the distribution of *FD* frequencies. The mean *FD* for the upper half was 2.83, and for the lower half was 1.34. The ratings of the audio material revealed that the individuals in the upper half of the distribution gave significantly more self-directed statements than did those in the lower half. In addition, those in the upper half had significantly more statements focusing on the past and present than did those in the lower half. The two groups did not differ on two measures of egocentricity, and it seemed reasonable to conclude that the more self-focusing statements were not simply a manifestation of self-centeredness.

In a third study, 15 outpatients, entering dynamically oriented psychotherapy, were tested a few days prior to their first therapy session, and retested after the tenth session. It was hypothesized that *FD* should increase at the retest, assuming that the patients would become more involved in the introspective process. Subjective ratings of "self-awareness" were also collected from each patient's therapist after the first, fifth, and tenth sessions. The results show a mean *FD* of 2.06 ($SD=1.03$) with a range of 0 to 4 in the pretreatment records. In the second test the mean increased to 3.11 ($SD=0.89$), $p<.05$, and the range increased to 1 to 6. The therapist ratings of self-awareness were on a 5-point scale. The correlation between *FD* and the ratings after the first session were not significant ($r=.13$); however, the correlation between *FD* and the ratings done after the tenth session were significant ($r=.37$, $p<.02$). These data seemed to offer added support to the proposition that *FD* is related to a psychological activity involving self-inspection, or at least self-awareness, and the *FD* category was added into the System.

Data that have accumulated since 1974 also provide support for the basic hypothesis concerning *FD*. Exner, Wylie, and Kline (1977) used 23 examiners to test 279 outpatients prior to their first therapy session, and retested them three times, at intervals of 9, 18, and 27 months after the onset of treatment. The patients were unequally distributed across seven treatment modalities, ranging from biofeedback ($N=28$) to psychoanalytic psychotherapy ($N=56$). Many of the patients involved in the briefer forms of treatment, such as biofeedback, assertiveness training, and systematic desensitization had terminated prior to the first retest, and only 54 of the 279 remained in treatment at the 27th month. The mean pretreatment *FD* for the entire group was 1.52 ($SD=1.03$), as contrasted with a mean *FD* of 2.71 ($SD=1.18$) at the first retest, $p<.01$. Interestingly, the mean for Vista also increased significantly, nearly doubling from 0.89 in the pretreatment records to 1.68 in the protocols of the first retest.

The 18-month retest showed a slight reduction in the mean *FD* as compared with the 9-month retest, to 2.39 ($SD=1.18$), but when the group was subdivided into terminated ($N=157$) and continuing in treatment ($N=122$) differences were discovered. The mean *FD* for the terminated group was 1.67 ($SD=1.02$), which was similar to the pretreatment data. The mean *FD* for the group continuing in treatment was 3.49 ($SD=1.29$) which is significantly higher than the mean for the second test. More important, when the 9-month retest data were reanalyzed using the 18-month subgroups of terminated and continuing, the means for *FD* did not show a significant difference (terminated = 2.51 versus continuing = 2.92).

A second important finding in the 18-month retest data is that the mean for *Vista* decreased significantly for the total group, from 1.68 at 9 months to 0.78, and when the terminated and continuing subgroups were reviewed, both show relatively low mean values for *Vista* (terminated = 0.63 versus continuing = 0.94). Thus, it would appear that the introspective process is facilitated by a variety of intervention methods, and that during the early phases of intervention, some of that process evokes the sorts of affective irritation associated with *Vista* answers. Apparently the irritation is lessened considerably as the intervention is extended or terminated, but if intervention continues, the process of self-inspection, as reflected in the *FD* answers, remains at a higher than average level.

Higher than expected values for *FD* in the records of persons not actively in treatment may signal that the introspective process is being abused to the disadvantage of the person. For instance, the Suicide Constellation includes the variable, $FV+VF+V+FD > 2$. The positive loading of this variable in the S-CON suggests that it is not only the irritating affect generated by introspection, as represented by *Vista* answers, which is a valid predictor, but any indication of an exaggerated involvement with self-examination, as can be indicated by substantial *FD* values.

ANATOMY AND X-RAY RESPONSES

Anatomy responses occur with a significantly greater frequency than do X-ray answers, but both appear related to issues of body concern. The *An* response, because of its more substantial frequency, has been studied in more detail than *Xy* answers but, in the overall picture, they are correlated with similar features. Beck (1945) speculated that they relate to issues of body concern. Shatin (1952) found a significantly greater frequency of *An* answers among psychosomatics than among neurotics. Earlier, Zolliker (1943) found a substantially high incidence of *An* answers in the records of women suffering psychiatric complications due to pregnancy. Rapaport, Gill, and Schafer (1946) found a high incidence of these responses among "neurasthenics." Weiss and Winnik (1963) postulated that matters of physical health may not be relevant to the interpretation of *An* answers, arguing that these answers can indicate a vicarious preoccupation with body concern without directly experiencing physiological discomfort. However, that argument seems tenuous at best. Exner, Armbruster, Walker, and Cooper (1975) found elevations in *An* responses in both elective surgery patients and overweight patients beginning a stringently controlled dietary routine. In fact, the records of 331 medical outpatients and inpatients reveal a mean for *An* of slightly more than two. Draguns, Haley, and Philips (1967) concluded from a literature review that *An* responses signal a form of self-absorption that can be the product of either autism or physiological changes such as those created by pregnancy, pubescence, or physical illness.

An responses appear at least once in about 40% of the sample of 600 records from nonpatient adults, while X-ray answers appear at least once in only about 5% of the sample. Studied as a composite variable ($An+Xy$), about one third of the persons in the sample have values of one, about 8% have values of two, and only 3% have values greater than two. A slightly larger proportion of patient protocols, from both adults and children, contains $An+Xy$ answers but, more important, nearly one

third of the *An+Xy* responses given by patients are *FQ-*, whereas less than 10% of the *An+Xy* responses given by nonpatients have a minus form quality. These sorts of minus answers appear most often among the protocols of schizophrenics and depressed patients with problems in body functioning. In fact, as body concerns magnify, the likelihood of *Xy* answers with *FQ-* also seems to increase. For instance, Exner, Murillo, and Sternklar (1979) found an average of 2.2 *Xy* answers among 21 inpatient schizophrenics who manifest body delusions, and an average of 1.7 *Xy* answers among 17 depressed inpatients who had problems in body functioning. Nearly half of those responses were coded *FQ-*. Exner (1989) reported that more than one third of all minus answers given by 68 adult males with serious physical problems involved *An+Xy* contents.

The composite of findings regarding *An+Xy* suggest that values of one or two should not necessarily be considered as being important when studying the self-perception of an individual, unless the answers have a minus form quality. Values of three or greater are usually much more indicative of some unusual body concern or preoccupation. This finding is not uncommon among persons who have physical problems but, if no obvious medical cause for the concern is evident in the history, it is likely that the preoccupation has a psychogenic origin, and probably relates directly to the overall conception of the self. Typically, if the composite includes *Xy* answers, the concern is probably marked by more distressful feelings, because *Xy* answers usually involve the achromatic or shading determinants, whereas *An* responses that are not Pure *F* are more likely to involve chromatic color.

MORBID CONTENT

Some of the concepts and research related to MOR responses have been discussed in Chapter 19, including the finding that 76 outpatients who gave three or more morbid content answers were judged by therapists to be more pessimistic about

their future. Responses containing morbid content invariably include embellishments of the stimulus field that attribute features to the object that are not obvious in the field. An important issue is whether the embellishments represent projections of self-image, or whether they may simply represent differences in processing or mediation. Two studies provide some data related to that question.

Exner (1989) randomized 45 nonpatient adults into three groups of 15 persons each, and presented each group with 7 of the 10 blots (I, II, III, V, VII, IX, and X) for 15 seconds each using a slide projector. Prior to the exposures, each person was provided with a booklet containing location figures of the seven blots. Each page had one target answer printed at the top of the page. There were 21 target answers, three per card, and each of the three involved the same location area. For instance, the three target answers for Card II, all for the *D6* area, included dogs playing, dogs fighting, and hurt animals. Seven of the 21 were COP responses, 7 were AG responses, and 7 were MOR answers. Participants were instructed to view the blot, find the target answer, and outline it on the location figure. The results indicated that, when subjects are "set" to do so, they can find any of the target answers easily.

Exner (1989) also recruited another group of 45 nonpatients to take the Rorschach. Participants were randomized into three groups of 15 each and, before taking the test, each group was given a set about the test. One group was set to report COP answers, a second group was set for AG responses, and the third group was set to give MOR responses. The group set to find MOR answers was told that persons who are more alert to the feelings of others usually find it easy to see the products of violence in the blots. Those 15 individuals averaged 3.6 MOR answers. The results of both studies indicate that persons are likely to translate a given distal area of a blot in a manner that is consistent with internal sets. Assuming that no direct sets are provided at the time the test is administered, it seems reasonable to suggest that

persons are likely to project their own characteristics when selecting or embellishing an answer.

For instance, Malone (1996) studied 58 women in outpatient care. Half had histories of incest, and they gave substantially more MOR answers than did the other patients. Epstein (1998) has noted that persons with traumatic brain injury tend to give more MOR responses than is usually expected. Silberg and Armstrong (1992) found that MOR loads positively into an experimental index designed to detect suicidality in adolescents.

The composite of findings concerning MOR suggests these answers signal an orientation toward the self, and probably toward the environment, that is marked by pessimism and the self-image is conceptualized by the person to include more negative, and possibly damaged features than is commonplace. In other words, MOR responses provide indirect, or sometimes direct, self-representations. MOR responses are interpreted both in terms of the quantity and substance of the responses. When the value for MOR equals one, the finding is actuarially meaningless but, at times, a single MOR answer can be very revealing when the substance of the answer is studied. When the value for MOR is three or greater, it is reasonably certain that the self-image is marked by negative characteristics, and the verbal material in the answers should provide some additional clarification concerning the negative characteristics.

Findings concerning MOR responses should be approached cautiously. Data from three studies indicate that the value for MOR is routinely elevated by nonpatient subjects recruited to simulate depression in the Rorschach (Meisner, 1984; Exner, 1987; Ros Plana, 1990). Thus, any interpretation of MOR answers must be cast in the context of the assessment situation.

HUMAN CONTENT RESPONSES

The evaluation of human content has several uses. It provides some information about interest in

people. When the human contents are subdivided into those which are Pure *H* versus those that are *Hd* or parenthesized human figures, the result affords some indication about whether the conceptions of people, including the self, are based on actual experience, or are derived more from imaginary conceptions or distortions of experience. In addition, the actual substance of human content answers often provides useful projected information about how people, and the self, are conceptualized.

Among the most important human content datum related to self-image, is the relation between Pure *H* and other human contents, expressed in the ratio $H:(H)+Hd+(Hd)$. Most nonpatients, except for young children, give as much, or more Pure *H* than the combination of $(H)+Hd+(Hd)$. However, among adults, the data differ substantially in relation to *EB*. As shown earlier in Table 20.2, introverts typically give two or three more human content answers per record than either ambiverts or extraverts, and most are Pure *H*. Thus, more Pure *H*, than other human contents, is always expected in the protocol of an introvert.

In the Weiner and Exner (1991) study of Rorschach changes after short- or long-term outpatient treatment, 147 of the 176 participants averaged about five human contents in their pretreatment records, of which most (3.5) were not Pure *H*. In a retest taken 27 to 31 months after treatment began, and at which time all patients in the short-term group had terminated, all participants averaged slightly more than six human contents, and only 24 continued to have fewer Pure *H* answers than the combination of $(H)+Hd+(Hd)$. In the Exner and Sanglade (1992) study of Rorschach changes following brief and short-term treatment, 19 of 35 persons entering brief treatment, and 18 of 35 persons entering short-term treatment, had fewer Pure *H* answers than the composite $(H)+Hd+(Hd)$. In a second retest, taken 8 to 12 months after the baseline for the brief treatment group, and 24 to 27 months after the baseline for the short-term treatment group,

16 of the 19 brief treatment participants continued to have more human contents that were not Pure *H*, but only three persons from the short-term treatment group continued to show that configuration.

Another hint that more Pure *H* than other forms of human content relate to a more realistically based estimate of self-image is noted in the Thomas et al. study (1982) cited earlier. It involved the use of the Gough Adjective Checklist with 225 college students, and a design in which each student responded to the ACL twice, once with a self-description and once with an ideal description. Forty students, 20 each falling at the extremes of a difference score distribution, were administered the Rorschach. The $H:(H)+Hd+(Hd)$ ratio for the 20 students having the least discrepancy between their self and ideal ratings was 2.8:1. The $H:(H):Hd+(Hd)$ ratio for the 20 students having the greatest discrepancy between their self and ideal ratings was 1:1.2. Interestingly, the proportions of introversives, extratensives, and ambitents is about the same for both groups.

ANALYSIS OF THE VERBAL MATERIAL

Rorschach (1921) was very cautious in his estimate of the interpretive yield from the verbal material. He pointed to the fact that the test does not provoke a "free flow" of ideation, but stated that if unconscious or subconscious ideation did occur in the test, it would be manifest in the content. After the monograph was published, Rorschach seems to have become more interested in contents. In his posthumously published article (Rorschach & Oberholzer, 1923), prepared for presentation to the Swiss Psychoanalytic Association, he elaborated considerably on contents, especially those involving human movement. He implied a relation between human movement answers and behavioral features, and suggested that *M* responses have a relation to unconscious attitudes about the self. It seems almost certain that Rorschach would have

accepted Franks' *Projective Hypothesis* (1939) as relevant to the interpretation of the test.

Lindner (1943, 1944, 1946, 1947) was among the first to make a formal argument encouraging a greater emphasis on "content analysis" than had been the case previously. He cited instances in which the scoring configurations did not provide an accurate "diagnostic" picture of psychopaths, but analysis of the verbalizations did produce an accurate picture. He also presented a series of classes of answers to different areas of the blots which could be interpreted as symbolically representative of different types of psychopathological ideation. Following from Lindner's lead, many works have focused on the analysis of content as related to diagnostic types, personality traits, and the meaning of specific classes of verbalizations. Some of these, especially those dealing with traits, have developed special codings for particular classes of contents (Elizur—anxiety, 1949; Elizur—hostility, 1949; Walker—aggression, 1951; Stone—aggression, 1953; Wheeler—homosexuality, 1949; J. Smith & Coleman—tension, 1956; Fisher & Cleveland—body image boundary, 1958; Holt—defense effectiveness, 1960, 1966).

Unfortunately, with the possible exception of the Holt Index of Defense Effectiveness, these approaches have yielded equivocal findings. This does not negate the usefulness of analyzing verbal material, but does emphasize the problems involved in attempting to formalize these data into specific categories. For example, a review of the research concerning the Wheeler 20 Signs of Homosexuality suggests that 6 of the 20 signs are unquestionably poor, 6 others hold up fairly well to empirical scrutiny, and the remaining 12 are ambiguous (Goldfried, Stricker, & Weiner, 1971).

Studies attempting to equate specific classes of content with a specific "symbolic" meaning have been even less successful. Goldfarb (1945) and Goldfried (1963) both have emphasized that animal contents are not universal in their symbolic meaning. Several studies (Bochner & Halpern, 1945; Meer & Singer, 1950; Rosen, 1951; Phillips & Smith, 1953; Hirschstein & Rabin,

1955; Levy, 1958; Zelin & Sechrest, 1963) have explored the postulate that Cards IV and VII represent "father and mother," respectively. The few findings that have been positive are equivocal and, clearly, have not been supported when more sophisticated research designs have been employed (Wallach, 1983). The same negative findings have evolved concerning the significance of other blot stimuli, such as Cards III or X representing interpersonal connotations, or that Card VI represents sexuality. It is very dangerous for an interpreter to operate under these faulty assumptions.

On the other hand, some contents tend to lend themselves to interpretation quite readily. For instance, sexual contents usually signify some form of preoccupation, and Pascal, Ruesch, Devine, and Suttell (1950) have presented evidence to indicate that genital contents do have some universal meaning. Molish (1967) has pointed out that sexual contents are useful to interpretation because they are much more direct than symbolic. Prandoni, Matranga, Jensen, and Watson (1973) did find a greater frequency of sexual contents in the records of sex offenders but, like Molish, cautions that these types of answers have little meaning when interpreted in isolation. One of the most common approaches to the analysis of the verbal material is based on the logical grouping of responses that appear to have a common theme, or very common characteristics.

Schafer (1954) has presented one of the most comprehensive approaches to the analysis of verbiage using this method. He cites 14 broad ranging categories, using psychoanalytic constructs, which include dependency, aggressiveness, conflicts, fears and such, and provides illustrations of how different contents may relate to the same theme. Although some of these examples are useful only if applied in the psychoanalytic framework, such as the response of "mud" reflecting an "anal" orientation, most serve to represent how a consistency of themes can be useful regardless of theoretical orientation. For

instance, Schafer suggests that answers which include references to God, police, a straw man, weak branches, and so on can relate to feelings of inadequacy and/or impotency. Schafer's work is a classic of this kind and can be of use by an interpreter, regardless of orientation, because it tends to give emphasis to the obvious classes of responses that might "fit together" to convey idiosyncratic needs, preoccupations, and such. Schafer also points to the importance of studying the emotional tone that is often conveyed by the wording of a person.

Some projected material is conveyed in Special Scores, such as MOR, COP, or AG, but in many cases the repetitious use of a word or tone in describing objects can add new information. For example, a person may consistently begin an answer by saying "Boy, this is another loser," or "I'm just no good at this," either of which might suggest a sense of insecurity or inadequacy. Some interpreters attempt to derive some information from each response, proceeding in a methodical, but often concrete, response-by-response approach to the record. Unfortunately, this approach can be naive and very misleading. It is erroneous to assume that all responses will yield some new or enhancing information, and the interpreter should avoid becoming burdened by trying to determine why a specific object was reported, or if there is symbolic significance in the selection of a response.

People tend to be redundant in their verbal behaviors if those behaviors are manifestations of needs, or attitudes, or conflicts. For example, if a thrice married and now separated woman gives responses such as "A vulgar man displaying his thing," "The ugly neckbone of a person like men have," "A vandal with a fire in his gut," and "An evil man peering into a window," it takes little more than common sense to develop the postulate that she does not care for males, and probably feels threatened and/or victimized by them. These are all rich responses that involve movement or embellishments.

At the other extreme, a person might give a sequence of answers to Cards I through IV such as "A bat," "The face of a cat," "Two dogs," "A hole in the ground," "A butterfly," "Some blood," "Two people," "A furry gorilla," and "A willow tree." This sequence of nine responses to the first four blots contains no movement, and there are no embellishments, but they are not all Pure *F* answers. The hole could involve Vista or *FD*, the blood, and possibly the butterfly, can include chromatic color, and the gorilla response almost certainly will include texture. Yet, none include any clear projected features. They are essentially classification answers and, as such, contribute little or nothing to the analysis of the verbal material.

There are two pitfalls that can occur in analyzing verbal material about which caution should be exercised. First, some interpreters are prone to read the material in the response and the inquiry together, as if a single stream of ideation is represented. This is not the case, because the verbal material in the original response is delivered much earlier, and under a different set of conditions than the material in the inquiry. When giving the original answers, the person operates under a fairly ambiguous set of instructions, and usually he or she will be naive to the blots. Thus, projected material that occurs is issued somewhat freely and, because of that, it has considerable interpretive value. The task of the inquiry is much more structured. The person is encouraged to give more verbiage and, under this circumstance, embellishments are more commonplace. They must be addressed with caution, and used only if there is good reason to believe that they are not provoked by the instructions of the inquiry.

A second problem that the interpreter must avoid when dealing with the verbal material is the development of premature sets. It is sometimes very easy to become caught up in a single answer or two. The result can be a misleading and/or erroneous postulate that is afforded considerable weight and, in turn, other data that

might support alternative or contradictory positions are ignored.

REFERENCES

- Beck, S. J. (1945). *Rorschach's test. II: A variety of personality pictures*. New York: Grune & Stratton.
- Bochner, R., & Halpern, F. (1945). *The clinical application of the Rorschach test*. New York: Grune & Stratton.
- Brems, C., & Johnson, M. E. (1990). Further exploration of the Egocentricity Index in an inpatient psychiatric population. *Journal of Clinical Psychology, 46*, 675-679.
- Caputo-Sacco, L., & Lewis, R. J. (1991). MMPI correlates of Exner's Egocentricity Index in an adolescent psychiatric population. *Journal of Personality Assessment, 56*, 29-34.
- Collucci, G., Pellicciotta, A., Buono, S., & Di-Nuovo, S. F. (1998). The Rorschach Egocentricity Index in subjects with intellectual disability. *Journal of Intellectual Disability Research, 42*, 354-359.
- Draguns, I. G., Haley, E. M., & Phillips, L. (1967). Studies of Rorschach content: A review of the research literature. Part 1: Traditional content categories. *Journal of Projective Techniques and Personality Assessment, 31*, 3-32.
- Elizur, A. (1949). Content analysis of the Rorschach with regard to anxiety and hostility. *Journal of Projective Techniques, 13*, 247-284.
- Epstein, M. (1998). Traumatic brain injury and self-perception as measured by the Rorschach using Exner's Comprehensive System. *Dissertation Abstracts International, 59*, 0870.
- Exner, J. E. (1969). Rorschach responses as an index of narcissism. *Journal of Projective Techniques and Personality Assessment, 33*, 324-330.
- Exner, J. E. (1973). The Self Focus Sentence Completion: A study of egocentricity. *Journal of Personality Assessment, 37*, 437-455.
- Exner, J. E. (1974). *The Rorschach: A Comprehensive System. Volume 1*. New York: Wiley.
- Exner, J. E. (1978). *The Rorschach: A Comprehensive System. Volume 2. Current research and advanced interpretation*. New York: Wiley.
- Exner, J. E. (1987). A pilot study on efforts by nonpatients to malingering characteristics of depression. *Alumni newsletter*. Asheville, NC: Rorschach Workshops.

- Exner, J. E. (1989). Searching for projection in the Rorschach. *Journal of Personality Assessment*, 53, 520-536.
- Exner, J. E. (2001). *A Rorschach workbook for the Comprehensive System* (5th ed.). Asheville, NC: Rorschach Workshops.
- Exner, J. E., Armbruster, G. L., Walker, E. I., & Cooper, W. H. (1975). *Anticipation of elective surgery as manifest in Rorschach records*. Rorschach Workshops (Study No. 213, unpublished).
- Exner, J. E., Kuhn, B., Schumacher, J., & Fishman, R. (1975). *The relation of field dependence and locus of control to the Rorschach index of egocentricity*. Rorschach Workshops (Study No. 189, unpublished).
- Exner, J. E., Martin, L. S., & Mason, B. (1984). *A review of the Rorschach Suicide Constellation*. 11th International Congress of Rorschach and Projective Techniques, Barcelona, Spain.
- Exner, J. E., & Murillo, L. G. (1975). Early prediction of posthospitalization relapse. *Journal of Psychiatric Research*, 12, 231-237.
- Exner, J. E., & Murillo, L. G. (1977). A long-term follow up of schizophrenics treated with regressive ECT. *Diseases of the Nervous System*, 38, 162-168.
- Exner, J. E., Murillo, L. G., & Sternklar, S. (1979). *Anatomy and X-ray responses among patients with body delusions or body problems*. Rorschach Workshops (Study No. 257, unpublished).
- Exner, J. E., & Sanglade, A. A. (1992). Rorschach changes following brief and short-term therapy. *Journal of Personality Assessment*, 59, 59-71.
- Exner, J. E., Thomas, E. A., & Mason, B. (1985). Children's Rorschach's: Description and prediction. *Journal of Personality Assessment*, 49, 13-20.
- Exner, J. E., Weiss, L. J., Coleman, M., & Rose, R. B. (1979). *Rorschach variables for a group of occupationally successful dancers*. Rorschach Workshops (Study No. 250, unpublished).
- Exner, J. E., & Wylie, J. R. (1977). Some Rorschach data concerning suicide. *Journal of Personality Assessment*, 41, 339-348.
- Exner, J. E., Wylie, J. R., & Bryant, E. L. (1974). *Peer preference nominations among outpatients in four psychotherapy groups*. Rorschach Workshops (Study No. 199, unpublished).
- Exner, J. E., Wylie, J. R., & Kline, J. R. (1977). *Variations in Rorschach performance during a 28 month interval as related to seven intervention modalities*. Rorschach Workshops (Study No. 240, unpublished).
- Fisher, S., & Cleveland, S. E. (1958). *Body image and personality*. New York: Van Nostrand Reinhold.
- Frank, L. K. (1939). Projective methods for the study of personality. *Journal of Personality*, 8, 389-413.
- Gacono, C. B., & Meloy, J. R. (1994). *The Rorschach Assessment of Aggressive and Psychopathic Personalities*. Hillsdale, NJ: Erlbaum.
- Gacono, C. B., Meloy, J. R., & Bridges, M. R. (2000). A Rorschach comparison of psychopaths, sexual homicide perpetrators, and nonviolent pedophiles. *Journal of Clinical Psychology*, 56, 757-777.
- Gacono, C. B., Meloy, J. R., & Heaven, T. R. (1990). A Rorschach investigation of narcissism and hysteria in antisocial personality. *Journal of Personality Assessment*, 55, 270-279.
- Goldfarb, W. (1945). The animal symbol in the Rorschach test and animal association test. *Rorschach Research Exchange*, 9, 8-22.
- Goldfried, M. (1963). The connotative meanings of some animals for college students. *Journal of Projective Techniques*, 27, 60-67.
- Goldfried, M., Stricker, G., & Weiner, I. (1971). *Rorschach handbook of clinical and research applications*. Englewood Cliffs, NJ: Prentice-Hall.
- Greenwald, D. F. (1990). An external construct validity study of Rorschach personality variables. *Journal of Personality Assessment*, 55, 768-780.
- Hall, W. C. (1995). Differentiating characterological from neurotic delinquents. *Dissertation Abstracts International*, 55, 4120.
- Hilsenroth, M. J., Fowler, J. C., Padawar, J. R., & Handler, L. (1997). Narcissism in the Rorschach revisited: Some reflections on empirical data. *Psychological Assessment*, 9, 113-121.
- Hirschstein, R., & Rabin, A. I. (1955). Reactions to Rorschach cards IV and VII as a function of parental availability in childhood. *Journal of Consulting Psychology*, 19, 473-474.
- Holaday, M., Armsworth, M. W., Swank, P. R., & Vincent, K. R. (1992). Rorschach responding in traumatized children and adolescents. *Journal of Traumatic Stress*, 5, 119-129.
- Holt, R. R. (1960). Cognitive controls and primary processes. *Journal of Psychoanalytic Research*, 4, 105-112.
- Holt, R. R. (1966). Measuring libidinal and aggressive motives and their controls by means of the Rorschach test. In D. Levine (Ed.), *Nebraska Sym-*

- posium on Motivation. Lincoln: University of Nebraska Press.
- Klopfer, B., & Kelley, D. (1942). *The Rorschach technique*. Yonkers-on-Hudson, NY: World Books.
- Levy, E. (1958). Stimulus values of Rorschach cards for children. *Journal of Projective Techniques*, 22, 293-295.
- Lindner, R. M. (1943). The Rorschach test and the diagnosis of psychopathic personality. *Journal of Criminal Psychopathology*, 1, 69.
- Lindner, R. M. (1944). Some significant Rorschach responses. *Journal of Criminal Psychopathology*, 4, 775.
- Lindner, R. M. (1946). Content analysis in Rorschach work. *Rorschach Research Exchange*, 10, 121-129.
- Lindner, R. M. (1947). Analysis of Rorschach's test by content. *Journal of Clinical Psychopathology*, 8, 707-719.
- Malone, J. A. (1996). Rorschach correlates of childhood incest history in adult women in psychotherapy. *Dissertation Abstracts International*, 56, 5176.
- Meer, B., & Singer, J. (1950). A note of the "father" and "mother" cards in the Rorschach inkblots. *Journal of Consulting Psychology*, 14, 482-484.
- Meisner, J. S. (1984). Susceptibility of Rorschach depression correlates to malingering. *Dissertation Abstracts International*, 45, 3951B.
- Molish, H. B. (1967). Critique and problems of the Rorschach. A survey. In S. J. Beck & H. B. Molish (Eds.), *Rorschach's test. II: A variety of personality pictures* (2nd ed.). New York: Grune & Stratton.
- Pascal, G., Ruesch, H., Devine, D., & Suttell, B. (1950). A study of genital symbols on the Rorschach test: Presentation of method and results. *Journal of Abnormal and Social Psychology*, 45, 285-289.
- Phillips, L., & Smith, J. G. (1953). *Rorschach interpretation: Advanced technique*. New York: Grune & Stratton.
- Prandoni, J., Matranga, J., Jensen, D., & Watson, M. (1973). Selected Rorschach characteristics of sex offenders. *Journal of Personality Assessment*, 37, 334-336.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Psychological diagnostic testing* (Vol. 2). Chicago: Yearbook Publishers.
- Raychaudhuri, M., & Mukerji, K. (1971). Homosexual-narcissistic "reflections" in the Rorschach: An examination of Exner's diagnostic Rorschach signs. *Rorschachiana Japonica*, 12, 119-126.
- Rorschach, H. (1921). *Psychodiagnostik*. Bern, Switzerland: Bircher.
- Rorschach, H., & Oberholzer, E. (1923). The application of the interpretation of form to psychoanalysis. *Zeitschrift für die Gesamte Neurologie und Psychiatrie*, 82, 240-274.
- Rosen, E. (1951). Symbolic meanings in the Rorschach cards: A statistical study. *Journal of Clinical Psychology*, 7, 239-244.
- Ros Plana, M. (1990). *An investigation concerning the malingering of features of depression on the Rorschach and MMPI*. Unpublished doctoral dissertation, University of Barcelona, Spain.
- Schafer, R. (1954). *Psychoanalytic interpretation in Rorschach testing*. New York: Grune & Stratton.
- Shatin, L. (1952). Psychoneurosis and psychosomatic reaction. A Rorschach study. *Journal of Consulting Psychology*, 16, 220-223.
- Silberg, J. L., & Armstrong, J. G. (1992). The Rorschach test for predicting suicide among depressed adolescent inpatients. *Journal of Personality Assessment*, 59, 290-303.
- Smith, A. M. (1995). Juvenile psychopathy: Rorschach assessment of narcissistic traits in conduct disordered adolescents. *Dissertation Abstracts International*, 55, 5088.
- Smith, J., & Coleman, J. (1956). The relationship between manifestation of hostility in projective techniques and overt behavior. *Journal of Projective Techniques*, 20, 326-334.
- Stone, H. (1953). *Relationship of hostile aggressive behavior to aggressive content of the Rorschach and Thematic Apperception Test*. Unpublished doctoral dissertation, University of California at Los Angeles.
- Thomas, E. A., Exner, J. E., & Baker, W. (1982). *Ratings of real versus ideal self among 225 college students*. Rorschach Workshops (Study No. 287, unpublished).
- Walker, R. G. (1951). A comparison of clinical manifestations of hostility with Rorschach and MAPS performance. *Journal of Projective Techniques*, 15, 444-460.
- Wallach, J. D. (1983). Affective-symbolic connotations of the Rorschach inkblots: Fact or fantasy. *Perceptual and Motor Skills*, 56, 287-295.
- Watson, A. (1965). *Objects and objectivity: A study in the relationship between narcissism and intellectual subjectivity*. Unpublished doctoral dissertation, University of Chicago.

- Weiner, I. B., & Exner, J. E. (1991). Rorschach changes in long-term and short-term psychotherapy. *Journal of Personality Assessment*, 56, 453-465.
- Weiss, A. A., & Winnik, H. Z. (1963). A contribution to the meaning of anatomy responses on the Rorschach test. *Israel Annual of Psychiatry*, 1, 265-276.
- Wheeler, W. M. (1949). An analysis of Rorschach indices of male homosexuality. *Journal of Projective Techniques*, 13, 97-126.
- Winter, L. B., & Exner, J. E. (1973). *Some psychological characteristics of some successful theatrical artists*. Rorschach Workshops (Study No. 183, unpublished).
- Zelin, M., & Sechrest, L. (1963). The validity of the "mother" and "father" cards of the Rorschach. *Journal of Projective Techniques and Personality Assessment*, 27, 114-121.
- Zolliker, A. (1943). Schwangerschaftsdepression and Rorschach'scher formdeurversuch. *Schweiz Arheives Neurologie und Psychiatrie*, 53, 62-78.

CHAPTER 21

Interpersonal Perception and Behavior

Many ingredients determine how a person perceives others, and how they will behave in various interpersonal situations. Some are internal features, such as needs, attitudes, emotional states, sets, and coping styles. Any of these can be quite influential in molding impressions about people and the environment. They usually form the nucleus of ingredients that determine the routine patterns of interactive behavior. However, external elements also play an important role in determining interpersonal perceptions and behaviors, and there are times when external elements become dominant in shaping the nature of social interaction. For instance, a person who is oriented toward being assertive with others may find himself or herself in a situation in which assertiveness is unacceptable or counterproductive and, consequently, assumes a more submissive role. Similarly, an individual who ordinarily expresses emotion freely may be inclined to constrain emotion because of the nature of a situation.

Shifts in interactive roles occur because the individual perceives them to be necessary in light of the circumstances. They reflect a form of adaptation that is often very important to create and maintain effective patterns of social intercourse. Unfortunately, some people are not very flexible in social situations because they have internal characteristics related to social exchange which are strongly embedded and, as such, limit adaptability across a broad range of interpersonal circumstances. For example, a person may feel very insecure and develop a tendency to depend on others to

make important decisions. When called on for a decision, that individual may display reluctance or even flounder, and either of those behaviors can impair the quality of the interpersonal exchange. Others tend to falter simply because they have never developed the maturity or sensitivity necessary to adequately comprehend the elements or demands of differing social situations. Their interpersonal approach tends to be markedly routine. They respond in almost the same manner to a variety of circumstances, and their lack of flexibility leads to patterns of social behavior that vary considerably for effectiveness.

Rorschach interpreters are at somewhat of a disadvantage when attempting to describe interpersonal behavior, mainly because very little of the test data reveal information about the real environment of the individual, or about those with whom the person interacts. Thus, while postulates generated from this data set concerning interpersonal perception are fairly reliable, those formulated about behavior are more inferential, and often more general than might be desired.

RORSCHACH VARIABLES RELATED TO INTERPERSONAL PERCEPTION

This cluster includes the data for 14 structural variables (CDI, HVI, *EBPer*, *a:p*, *Food*, *SumT*, *Sum of Human Contents*, *Pure H*, GHR, PHR, PER, COP, AG, and *Isolation Index*), the codings for COP and AG answers, and a review of the contents for *M* and *FM* responses that contain a pair.

Although this mixture may seem extensive, it is not for many cases. It includes several "negative" variables; that is, when any are positive they identify the presence of features that may impact negatively on interpersonal perception or behavior. When they are not positive, they offer very little information about how an individual perceives others or interacts with them. Sometimes, the interpreter is challenged to develop a picture that affords adequate weight to the positive interpersonal features of a person.

The clusters concerning self-perception and interpersonal perception are always studied in tandem. In most cases, the self-perception data are reviewed first, but when findings for either of two key variables is positive (DEPI > 5 and CDI > 3; CDI > 3) the review of interpersonal data precedes the review of the self-perception data. Regardless of the order, the summary of findings about interpersonal perception should always be evaluated in light of the findings regarding self-perception because, in many instances, findings concerning the self-image or self-value contribute to an understanding of interpersonal perceptions and behaviors. In that context, the two cases presented in Chapter 20 will be used again to illustrate the interpretation of data concerning interpersonal perception.

Presearch Issues

The basic issues to be addressed regarding interpersonal perception and behavior are: (1) Is there

evidence to suggest that the individual may be noticeably lacking in social skills? (2) Does the person have unusual sets or stylistic features that may affect perceptions of others or the manner of interaction with people? (3) Does the individual seem open to emotional closeness? (4) To what extent is the person interested in others? (5) Does the person usually view interpersonal exchange positively? (6) Is there any evidence to suggest that the individual may be overly defensive about social interaction or prone to be socially isolated?

Case 12

This is the 47-year-old businessman who was recently admitted to a private psychiatric facility for evaluation. He has difficulty sleeping, forgets appointments, suspects that his colleagues are plotting against him, and believes his wife may be unfaithful. Questions have been raised about the possibility of depression, a bipolar disorder, or a schizoaffective disorder.

Case 13

This is the 29-year-old female who was divorced about a year ago and has been in outpatient care for two months. She complains of nervousness, feeling jittery, and having difficulty concentrating. She has been unresponsive to antianxiety medication, and her psychiatrist has raised questions about a panic disorder and requests recommendations for treatment.

INTERPRETIVE ROUTINE

The interpretive approach consists of eleven steps. The first 10 involve a review of structural

Case 12. Interpersonal Perception Data for a 47-Year-Old Male.

R = 21	CDI = 3	HVI = No	COP & AG RESPONSES
a:p = 8:5	SumT = 3 [eb = 9:12]	Fd = 2	III 6. D+ Ma.mp.FC' FD.CFo H,Fd,Cg P 4.0 COP, MOR,GHR V 11. D+ Ma.FC'-- H,Hh,Sx 2.5 COP,PHR
Sum Human Contents = 6 [Style = Extratensive]		H = 3	VIII 16. W+ FMa.CFo 2 A,An,Fd P 4.5 AG,MOR,PHR
GHR:PHR = 5:2			
COP = 2	AG = 1	PER = 1	
Isolation Indx = 0.24			

Case 13. Interpersonal Perception Data for a 29-Year-Old Female.

R = 25	CDI = 3	HVI = No	COP & AG RESPONSES
a:p = 4:6	SumT = 3 [eb = 7:8]	Fd = 3	II 3. D+ FMa.FC.FC'o 2 A,Id,Hh P 3.0 PER,COP
Sum Human Contents = 4 [Style = Extratensive]		H = 1	
GHR:PHR = 4:0			
COP = 1	AG = 0	PER = 4	
Isolation Indx = 0.12			

data and the codings for COP and AG answers. The last entails a review of the verbiage for *M* and *FM* answers that contain a pair.

Step 1: CDI

As noted in Chapters 14 and 16, the Coping Deficit Index includes 11 variables that are used in 10 criterion tests to yield CDI scores from zero to five. Six of these variables are related to interpersonal perception or behavior (*COP* < 2 and *AG* < 2, *F* > *a*+1, *Pure H* < 2, *Food* > 0, and *Isolation Index* > .24). Three other variables concern affect (*WSumC* < 2.5, *Afr* < .46, and *SumT* > 1) and the remaining two (*EA* < 6.0 and *AdjD* < 0) pertain to resources and controls. The criteria against which the variables are tested, with the exception of *COP* < 2 or *AG* < 2, identify characteristics that tend to be undesirable. Positive findings for one or two of the criteria are not uncommon, but a substantial accumulation of positive findings does not bode well for social relationships.

Whenever the CDI has values of four or five, it denotes the presence of features typically associated with social immaturity or ineptness. They increase the likelihood that close, mature relations with others will be difficult to create and/or maintain. For instance, consider a person whose structural data include the composite of *EA* = 4.5, *a:p* = 1:3, *Afr* = .40, and *SumT* = 2. Although speculative, because no other test data or history are available from which to challenge any postulates,

this composite suggests that the person has limited resources, tends to be passive, prefers to avoid emotional exchanges, and is lonely. While this mix of features does not necessarily preclude rewarding interpersonal relationships, it does include characteristics that might easily impair the extent to which such relationships could be sustained.

Potential Finding: When the value for the CDI is four or five, it indicates that the person is probably less socially mature than might be expected. This is the type of individual who is limited in social skills and is disposed to experience frequent difficulties when interacting with the environment, especially the interpersonal sphere. Relations with others are likely to be more superficial and less easily sustained. People such as this are often regarded by others as being distant, inept, or helpless in their dealings with people, and they tend to be less sensitive to the needs and interests of others.

Positive CDI people often have histories that are marked by social chaos and/or interpersonal dissatisfaction. Sometimes, they shy away from social intercourse and settle for a more isolated lifestyle that consists only of superficial relationships. More often, however, their social aspirations are not much different than most people. They seek out close and enduring relationships, but their ineptness frequently makes them less acceptable to others, or even vulnerable to rejection. They easily become

dissatisfied with their life and often experience a sense of confusion or helplessness about their social situation. In fact, periodic bouts of depression occur among many of these people as reactions to their social failures.

A positive CDI is not uncommon among young children who are still struggling with issues about their own identity and their relations with peers, but this is less common among youngsters older than age nine. When the CDI is positive in older children and adolescents, it indicates that they probably are less socially mature than might be expected, and are likely to have some of the same problems in establishing or maintaining relations with others that are common for adults who are positive on this index. Proceed to Step 2.

Step 2: HVI

The Hypervigilance Index (HVI) has been discussed earlier in regard to ideation and self-perception. As noted, when a hypervigilant style is present, it forms a core element of the psychological structure of the individual. The hypervigilant person uses considerable energy to maintain a relatively continuous state of preparedness because of a negative or mistrusting attitude about the environment.

Potential Finding: When the HVI is positive, it indicates a tendency to be overly cautious and conservative in relations with others. Hypervigilant people tend to feel quite vulnerable, and they formulate and implement behaviors very cautiously. They are preoccupied with issues of personal space and are very guarded in their interpersonal relations. Typically they do not have sustained close relationships unless they feel in control of the interactions. They do not expect closeness and often become very suspicious about gestures of closeness by others. While this feature is not necessarily pathological, exacerbations of it often produce paranoid-like manifestations. Proceed to Step 3.

Step 3: $a:p$ ratio

The $a:p$ ratio was discussed in relation to ideation and the data used as a source to consider issues of flexibility in values and attitudes. In this cluster, the same data are reviewed to determine if the individual is prone to assume a more passive role in interpersonal relations. As pointed out in Chapter 20, movement responses typically include projected material that denotes something about the individual. There are no known behavioral correlates for active movement per se. This is probably because a substantial majority of movement answers are active, usually appearing two to three times as often as passive movement. Passive movement usually will represent no more than one-third of the movement answers. It is reasonably well established that, when the frequency of p is significantly greater than a , it reflects a passive interpersonal style.

Potential Finding: When the value for passive movement exceeds the value for active movement by more than one point, it signifies that, generally, the individual will assume a more passive, *though not necessarily submissive*, role in interpersonal relations. People such as this usually prefer to avoid responsibility for decision making, and are less prone to search out new solutions to problems, or initiate new patterns of behavior, especially when the possibility exists that others will assume the necessary responsibilities. Proceed to Step 4.

Case 13 Finding Positive

The $a:p$ ratio of 4:6 supports the hypothesis that she usually prefers to adopt a more passive role in her interpersonal relations. The substantial frequency of passive movement answers was noted in studying the data about self-perception, as was her considerable self-centeredness, and probable immaturity. Her passivity may be a way of avoiding responsibility, but also might represent a tactic to manipulate others in ways that provide some sense of reassurance about her own estimate of personal worth. In other words, if others will make decisions

Case 13. Interpersonal Perception Data for a 29-Year-Old Female.

R = 25	CDI = 3	HVI = No	COP & AG RESPONSES
a:p = 4:6	SumT = 3 [eb = 7:8]	Fd = 3	II 3. D+ FMa.FC.FC'o 2 A,Id,Hh P 3.0 PER,COP
Sum Human Contents = 4 [Style = Extratensive]		H = 1	
GHR:PHR = 4:0			
COP = 1	AG = 0	PER = 4	
Isolation Indx = 0.12			

for her, or intervene on her behalf, she can logically conclude that she is highly regarded.

Step 4: Food Responses

Food (*Fd*) responses typically signal the presence of a dependency orientation that can affect interpersonal relations. The value for *Fd* is expected to be zero, except in the records of children, in which the presence of one food answer is not uncommon.

Potential Finding: When the value for *Fd* is greater than zero in the record of an adolescent or adult, or greater than one in the record of a child, it suggests that the person can be expected to manifest many more dependency behaviors than usually is expected. People such as this are inclined to rely on others for direction and support, and tend to be rather naive in their expectations concerning interpersonal relations.

They usually expect others to be more tolerant of their needs and demands, and they also expect others to be more willing to act in accord with those needs and demands. When this finding is positive for an individual who also has a passive style, it is reasonable to conclude that a passive-dependent feature is an important core component in the personality structure of the person. Proceed to Step 5.

Case 12 Finding Positive

There are two *Fd* answers, intimating that he may exhibit more dependency behaviors than is typical for an adult. This is an unusual finding for a seemingly successful businessman who apparently exhibits some leadership qualities. The self-perception findings indicated that he is a fragile, pessimistic individual, who holds himself in low regard, and seems quite concerned about his own adequacy. These features are also somewhat inconsistent for a person who has been successful in his

Case 12. Interpersonal Perception Data for a 47-Year-Old Male.

R = 21	CDI = 3	HVI = No	COP & AG RESPONSES
a:p = 8:5	SumT = 3 [eb = 9:12]	Fd = 2	III 6. D+ Ma.mp.FC'.FD.CFo H,Fd,Cg P 4.0 COP,MOR,GHR V 11. D+ Ma.FC'- H,Hh,Sx 2.5 COP,PHR
Sum Human Contents = 6 [Style = Extratensive]		H = 3	VIII 16. W+ FMa.CFo 2 A,An,Fd P 4.5 AG,MOR,PHR
GHR:PHR = 5:2			
COP = 2	AG = 1	PER = 1	
Isolation Indx = 0.24			

marriage and occupation for an extended period. Thus, it may be reasonable to speculate that his noticeable dependency needs have developed more recently, and could relate to the sense of helplessness that he feels about himself now. Their presence probably reflects a need for reassurance about his integrity, and highlight the possibility of considerable psychological disorganization.

Case 13 Finding Positive

She gave three *Fd* answers. When considered in light of her proneness to passivity, this seems to indicate that a passive dependent feature is an integral part of her basic personality structure. This characteristic probably plays a significant role in her interpersonal life and, as suggested earlier, is likely to be an important tactic through which she can gain and maintain reassurance about her inflated sense of personal worth.

Step 5: *SumT*

Texture responses have something to do with needs for closeness, and the person's openness to close emotional relations. Higher than expected values for *SumT* have been mentioned in the chapters about controls, stress, and affect, but a more extensive discourse is required here because of the apparent relation between texture answers and interpersonal experiences and behaviors.

Tactile interaction is an important component in everyday relationships. It is one of the basic senses, and it is an important source for learning and communicating. It is an avenue through which the infant crudely discriminates aspects of the

environment. Its importance persists in the developmental years, during which the touching of people and objects aids in differentiating and understanding them. Children frequently are rewarded, protected, or consoled with strokes or hugs and, of course, forms of punishment may involve touching, or the withholding of it. As the person becomes older, many aspects of tactuality, learned and used during the developmental years, continue as ways of exploration and communication. Objects are commonly described in tactile terms such as smooth, soft, hard, rough, and so on. Handshakes and embraces are ways of greeting or congratulating. Stroking, fondling, or caressing are typical nonverbal ways of expressing interest or concern, and expressions of love routinely involve various sorts of tactile exchange.

The broad range and frequent use of touch by people forms the basis of a conceptual cornerstone from which to understand and interpret texture responses. Namely, because experiencing and interpreting things and events in a tactual mode is so common in life, it seems logical to assume that when a person is presented with a stimulus field that can be translated that way, the individual will do so.

There is empirical support for this postulate in Rorschach data about texture answers. They occur in all of the blots, but the most common, by far, are given to Cards IV and VI, usually in conjunction with the Popular answers. This is because the shading features of those blots constitute potent distal bits that are easily translated as fur or hair. The potency of those features is well illustrated

Case 13. Interpersonal Perception Data for a 29-Year-Old Female.

R = 25	CDI = 3	HVI = No	COP & AG RESPONSES
a:p = 4:6	SumT = 3 [eb = 7:8]	Fd = 3	II 3. D+ FMa.FC.FC'o 2 A,Id,Hh P 3.0 PER,COP
Sum Human Contents = 4 [Style = Extratensive]		H = 1	
GHR:PHR = 4:0			
COP = 1	AG = 0	PER = 4	
Isolation Indx = 0.12			

by the fact that between 60% and 80% of individuals in various nonpatient samples, excluding persons with an avoidant style, give at least one texture answer. Most of those people give only one texture response and an overwhelming majority of those are to Cards IV or VI.

It is for this reason that, generally, the expected value for $SumT$ is one. Interpretively, the $SumT$ should be approached as a trichotomized variable with the divisions being $SumT=0$, $SumT=1$, and $SumT>1$.

Potential Finding 1: The value for T is expected to be one for most people. The presence of a single T response suggests that the person probably acknowledges and expresses needs for closeness in ways similar to most people. People such as this usually are amenable to close relationships and open to routine tactile exchanges as one way of creating and sustaining those relations. Proceed to Step 6.

Potential Finding 2: When the value for T is zero, it usually suggests that the person tends to acknowledge and/or express his or her needs for closeness in ways that are dissimilar to those of most people. *It does not mean that the person fails to have such needs.* Instead, it indicates that the individual is more conservative than might be anticipated in close interpersonal situations, especially those involving tactile exchange. People who are T -less tend to be overly concerned with personal space, and much more cautious about creating or maintaining close emotional ties with others.

There is an exception regarding this postulate. It relates to protocols in which the absence of T may represent a "false positive" finding. These are the records that are *completely void* of grey-black or shading responses. For instance, this is not uncommon in the protocols of children below the age of nine who often do not articulate shading when giving or explaining responses. Similarly, about 25% of the records given by people with an avoidant style, especially those with Λ values

greater than 1.2 and who give 20 or fewer responses, are also completely void for grey-black or shading answers. When interpreting records that contain no grey-black or shading responses, it is very difficult to ascertain whether the absence of T is a valid finding, and interpreters should be very cautious about including a postulate about it in the summary of findings. At times, the history may prove helpful in determining whether a T -less finding is relevant when interpreting a protocol in which no grey-black or shading answers appear but, generally, it is better to err on the side of caution regarding this issue.

It is logical to question whether the exception concerning T -less records might also extend to calculations for the Hypervigilance Index, because the absence of T forms the nucleus of the index. The answer is no. This is because the components of the HVI, with the exception of $T=0$, invariably occur only in protocols that are reasonably complex. Typically, protocols that contain no grey-black or shading answers are also impoverished for complexity and for other determinants, which may reflect a defensive approach to taking the test, or it may simply represent a rather impoverished personality structure. Proceed to Step 6.

Potential Finding 3: If the value for T is greater than one, it indicates the presence of strong unfulfilled needs for closeness. In most cases, the increased intensity of these natural yearnings will be reactive, having been provoked by a *recent* emotional loss. In some cases, however, the positive finding could represent a more persistent state that might have been provoked by emotional losses or disappointments that have never been adequately compensated or replaced. In either event, the individual usually harbors an irritating sense of longing or loneliness. Typically, people who experience this sort of irritation want close emotional relations with others, but are at a loss about how best to achieve them. Sometimes, the intensity of their needs clouds their

Case 12. Interpersonal Perception Data for a 47-Year-Old Male.

R = 21	CDI = 3	HVI = No	COP & AG RESPONSES
a:p = 8:5	SumT = 3 [eb = 9:12]	Fd = 2	III 6. D+ Ma.mp.FC'.FD.CFo H,Fd,Cg P 4.0 COP, MOR,GHR V 11. D+ Ma.FC'- H,Hh,Sx 2.5 COP,PHR
Sum Human Contents = 6 [Style = Extratensive]		H = 3	VIII 16. W+ FMa.CFo 2 A,An,Fd P 4.5 AG,MOR,PHR
GHR:PHR = 5:2			
COP = 2	AG = 1	PER = 1	
Isolation Indx = 0.24			

judgment and they become vulnerable to the manipulations of others. This is especially true for those who are either passive or dependent. Proceed to Step 6.

Case 12 Finding Positive

His record contains three texture answers, suggesting strong needs for closeness, and a marked sense of loneliness. There is nothing in the history indicating a recent emotional loss or trauma. Ordinarily, this would lead to a tentative postulate that these features are longstanding. However, this is an unusual case for which the history offers no hints of disruption or maladjustment until recently. There is, of course, the possibility that greater marital discord has existed than has been reported. However, it seems equally likely that a more distinct psychological disorganization has occurred. If this is true, the marked sense of neediness and loneliness could easily relate to his feelings of being helpless and overwhelmed, and unable to create or maintain close emotional supports with others.

Case 13 Finding Positive

She has three *T* responses, indicating a relatively strong sense of longing and/or loneliness. Her marital history does include a reported neglect and several liaisons with other men. Since her divorce, she notes dating frequently, but implies that none have proven to be the "right guy." Her marital failure probably represented a grievous insult to this highly self-centered individual, who also is prone to be passive and prefers to be cared for in interpersonal situations. Her inability to establish the sort of relationship that she desires is likely to have exacerbated her needs for closeness and her sense of loneliness, and probably contributes to the symptom pattern that she reports.

Step 6: Sum Human Contents and Pure H

Although human content responses usually are forms of self-representation, the total number of human contents in a protocol also provides the basis from which to estimate interest in people.

Case 13. Interpersonal Perception Data for a 29-Year-Old Female.

R = 25	CDI = 3	HVI = No	COP & AG RESPONSES
a:p = 4:6	SumT = 3 [eb = 7:8]	Fd = 3	II 3. D+ FMa.FC.FC'o 2 A,Id,Hh P 3.0 PER,COP
Sum Human Contents = 4 [Style = Extratensive]		H = 1	
GHR:PHR = 4:0			
COP = 1	AG = 0	PER = 4	
Isolation Indx = 0.12			

Persons with considerable interest in others, for any of a variety of reasons, typically give several human content responses. On the other hand, persons who are less interested in people, or even prone to withdraw from social intercourse, usually give few such answers.

When considering the issue of interest in others, the interpreter should also be alert to whether the person's impressions of people seem to be reality based. It is for this reason that the frequency of Pure *H* responses should also be considered. As noted in the preceding chapter, Pure *H* is the only human content coding for real persons. Thus, when Pure *H* answers constitute the greater proportion of human content answers, it is reasonable to assume that the individual's perceptions of others probably are reality based. Conversely, when they constitute only a minor proportion of human content responses, it is likely that the individual does not understand people very well.

As also noted in the preceding chapter, the expected number of human content responses varies depending on *R* and response styles. Thus, the interpretation of the sum of human contents and the proportion of Pure *H* should be formulated in relation to those variables. Table 21.1 provides some information, derived from an adult nonpatient sample, concerning the expected ranges for the sum of human contents. The average values for Pure *H* are included for comparative purposes because the interpretation at this step entails consideration of both variables. It should be noted that the ranges identified for protocols with *R* less

than 17 and *R* greater than 27 are based on small samples and should be applied cautiously.

The Table 21.1 data for the sum of human contents appear to be applicable to youngsters above the age of 8, but the average values for Pure *H* are generally lower for children under the age of 13. Young children often give human content responses that are (*H*) or (*Hd*). They do not understand people very well and also are inclined to identify more with fictitious characters. Thus, when interpreting the protocol of a younger person, assumptions concerning the expectancy for the proportion of Pure *H* responses should be modified accordingly.

Potential Finding 1: When issues of *R* and style are considered and the sum of human contents is in the expected range, and the value of Pure *H* constitutes more than half of the sum for an introversive person, or is at least equal to half of the sum for persons with other styles, it is reasonable to assume that the individual is as interested in others as much as most people, and probably conceptualizes them in a way that is reality based. Proceed to Step 7.

Case 12 Finding Positive

The 21-response protocol of this extratensive man contains six human content answers, which is in the expected range. Half of these are Pure *H*. As a composite, these data suggest that he is probably as interested in others as most people, and his perceptions of them tend to be reality based. This seems

Table 21.1 Expected Range for the Sum of Human Content and the Average for Pure *H* Based on Data for 500 Nonpatients Subdivided by Range of *R* and Response Styles.

	<i>R</i> = 14 to 16 Expected Values & Response Styles*				<i>R</i> = 17 to 27 Expected Values & Response Styles*				<i>R</i> = 27 to 55 Expected Values & Response Styles*			
	I	A	E	L	I	A	E	L	I	A	E	L
<i>N</i> =	18	22	17	16	116	54	129	38	33	16	24	17
All Human Content	4-6	2-4	2-4	2-5	5-8	4-7	3-6	4-7	7-11	5-9	4-7	5-9
Average Pure <i>H</i>	3.8	1.8	1.6	1.7	4.8	2.5	2.5	1.8	7.1	3.7	2.1	2.9

* I = Introversive; A = Ambitient; E = Extratensive; L = Avoidant

Case 12. Interpersonal Perception Data for a 47-Year-Old Male.

R = 21	CDI = 3	HVI = No	COP & AG RESPONSES
a:p = 8:5	SumT = 3 [eb = 9:12]	Fd = 2	III 6. D+ Ma.mp.FC'.FD.CFo H,Fd,Cg P 4.0 COP, MOR,GHR V 11. D+ Ma.FC'- H,Hh,Sx 2.5 COP,PHR
Sum Human Contents = 6 [Style = Extratensive]		H = 3	VIII 16. W+ FMa.CFo 2 A,An,Fd P 4.5 AG,MOR,PHR
GHR:PHR = 5:2			
COP = 2	AG = 1	PER = 1	
Isolation Indx = 0.24			

to be a very positive finding when contrasted with the several negative conclusions that have been drawn about self-perception, and previous findings from the interpersonal perception data.

Potential Finding 2: When issues of *R* and style are considered, and the sum of human contents is in the expected range, but the value of Pure *H* is equal to or less than half the sum for an introversive person, or less than half the sum for other styles, it is reasonable to assume that the individual is as interested in others as most people, but probably does not understand them very well.

People like this have a tendency to misread people, and frequently misinterpret social gestures. Sometimes, persons such as this have greater expectations for their own relationships than are reasonable. In other instances, their lack of understanding leads to social blunders that have the potential for alienating others. Proceed to Step 7.

Case 13 Finding Positive

The 25-response protocol of this extratensive woman contains four human content answers, which is in the expected range. Thus, she is probably like most others regarding her interest in people. However, there is only one Pure *H*, suggesting that she does not understand people very well and is prone to misread them and possibly behave in social situations in ways that are less than appropriate. This is likely to make her passive-dependent style less effective than might otherwise be the case.

Potential Finding 3: When issues of *R* and style are considered and the sum of human contents exceeds the expected range, and the value for Pure *H* is greater than half the sum for an introversive person, or is at least equal to half the sum for other styles, it signifies a substantial interest in people which is based on an understanding of them that tends to be grounded in reality. When this finding is positive, it usually suggests a healthy interest in

Case 13. Interpersonal Perception Data for a 29-Year-Old Female.

R = 25	CDI = 3	HVI = No	COP & AG RESPONSES
a:p = 4:6	SumT = 3 [eb = 7:8]	Fd = 3	II 3. D+ FMa.FC.FC'o 2 A,Id,Hh P 3.0 PER,COP
Sum Human Contents = 4 [Style = Extratensive]		H = 1	
GHR:PHR = 4:0			
COP = 1	AG = 0	PER = 4	
Isolation Indx = 0.12			

others; however, it can reflect a less healthy preoccupation with people such as is found among hypervigilant individuals who harbor a strong sense of mistrust for others. Proceed to Step 7.

Potential Finding 4: When issues of *R* and style are considered and the sum of human contents exceeds the expected range, but the value for Pure *H* is equal to or less than half the sum for an introversive, or is less than half the sum for other styles, it signifies a strong interest in others, but also suggests that the person does not understand people very well. The interest in others can be a positive sign, but in some instances may simply represent an unhealthy preoccupation such as is common to those who are guarded and mistrusting of others. In either case, the lack of understanding about people can often lead to unrealistic expectations concerning relationships and/or social blunders that alienate others. Proceed to Step 7.

Potential Finding 5: When issues of *R* and style are considered and the sum of human contents is below the expected range, it should be postulated that the individual is not as interested in others as much as most people. This finding is often positive for those who are emotionally withdrawn or socially isolated from their environment. When this finding is positive, the interpretation of values for Pure *H* usually is not applicable for protocols of less than 17 answers; however, for records of 17 or more responses the same principle stated with regard to earlier findings does apply. Namely, it can be assumed the person has a reality based perception of others when the value for *H* is greater than half the sum of human contents if the person is introversive, or is equal to or greater than half the sum for other styles. Sometimes, the finding regarding Pure *H* can be useful in understanding why a person may be more withdrawn or isolated from social situations. Proceed to Step 7.

Step 7: GHR and PHR

The special scores assigned to good (GHR) and poor (PHR) human representational responses constitute a broad based approach to the study of interpersonal behaviors and their effectiveness. It includes several coding categories (determinants, form quality, content, and special scores) and entails the evaluation of both human content responses and answers that have animals in human-like activities.

The GHR and PHR variables are dichotomous. GHR answers correlate with interpersonal histories that are usually considered to be effective and adaptive. People who give numerous GHR answers typically are well regarded by others and their interpersonal activities tend to be reasonably free of chaos. As might be expected, the highest frequencies of GHR answers usually appear in nonpatient protocols, but it is not unusual to find a substantial number of GHR answers in the records of a variety of patients whose problems do not extend to the interpersonal area. Typically, patients with severe pathological disturbances give low frequencies of GHR answers.

At the other extreme, PHR responses correlate highly with patterns of interpersonal behavior that are ineffective or maladaptive. Individuals who give numerous PHR answers usually have interpersonal histories that are marked by conflict and/or failure. They seem to manifest a kind of social ineptness that frequently leads to being shunned or rejected by others. In some instances, their lack of social awareness breeds inappropriate social behaviors, and can easily induce unwanted conflict. PHR responses usually appear with a substantial frequency in protocols of individuals suffering from serious pathological disturbances. They occur with a low to moderate frequency in the records of most patient groups, and low frequencies of PHR answers are not uncommon in the protocols of nonpatients.

Potential Finding 1: When the number of human representational responses is at least

Case 12. Interpersonal Perception Data for a 47-Year-Old Male.

COP & AG RESPONSES			
R = 21	CDI = 3	HVI = No	
a:p = 8:5	SumT = 3 [eb = 9:12]	Fd = 2	III 6. D+ Ma.mp.FC'.FD.CFo H,Fd,Cg P 4.0 COP, MOR,GHR V 11. D+ Ma.FC'- H,Hh,Sx 2.5 COP,PHR VIII 16. W+ FMa.CFo 2 A,An,Fd P 4.5 AG,MOR,PHR
Sum Human Contents = 6 [Style = Extratensive]		H = 3	
GHR:PHR = 5:2			
COP = 2	AG = 1	PER = 1	
Isolation Indx = 0.24			

three, and the value for GHR is greater than the value for PHR, it can be assumed that the individual generally engages in forms of interpersonal behaviors that are likely to be adaptive for the situation. As the GHR and PHR values become more disparate, with GHR being the greater, the likelihood increases that the person's interpersonal behaviors will be effective in a broad spectrum of interpersonal relations, and usually will be regarded favorably by others. Proceed to Step 8.

Case 12 Finding Positive

His protocol contains seven human representational answers, of which five are coded GHR. This is a very positive finding that coincides with the hypothesis derived from Step 6. It suggests that his interpersonal activities will usually be adaptive and regarded favorably by others. However, this postulate is contradictory with some of his reported behaviors that have provoked the evaluation. He has been noted to be suspicious, argumentative, and accusatory. Although it is premature to attempt to reconcile this

apparent discrepancy, one possibility that the findings from Steps 6 and 7 are more illustrative of long-standing features.

Case 13 Finding Positive

Her protocol contains four human representational answers, and all are GHR. This suggests that she usually engages in interpersonal behaviors that are adaptive and regarded favorably by others. This is somewhat contrary to that indicated by the Step 6 finding. Possibly, the fact that she is very self-centered and prone to interpersonal passivity is important. It may be that she does manifest patterns of interpersonal behavior that are regarded positively by others when her interactions with people are superficial, but that may not be the case when she interacts with those who she tries to depend on for the gratification of her personal needs, or reassurance concerning her personal worth.

Potential Finding 2: When the number of human representational responses is at least three, and the value for PHR is equal to or

Case 13. Interpersonal Perception Data for a 29-Year-Old Female.

COP & AG RESPONSES			
R = 25	CDI = 3	HVI = No	
a:p = 4:6	SumT = 3 [eb = 7:8]	Fd = 3	II 3. D+ FMa.FC.FC'o 2 A,Id,Hh P 3.0 PER,COP
Sum Human Contents = 4 [Style = Extratensive]		H = 1	
GHR:PHR = 4:0			
COP = 1	AG = 0	PER = 4	
Isolation Indx = 0.12			

greater than the value for GHR, it can be assumed that the individual generally engages in forms of interpersonal behaviors that are likely to be less adaptive for the situation than might be desirable. As the PHR and GHR values become more disparate, the likelihood increases that the person's interpersonal behaviors will be less effective in many situations and often will be regarded unfavorably by others. Proceed to Step 8.

Step 8: COP and AG

Cooperative (COP) and aggressive (AG) movement both include projected elements that are added by the person giving the answer. As self-representations, they sometimes provide useful information about internal sets that a person may have concerning interactions among people.

COP responses convey the notion that interpersonal exchanges will be positive, whereas AG answers imply that the individual anticipates such exchanges will be marked by some form of aggressiveness or competitiveness. At first glance, it may seem that the interpretations for each is straightforward because they seem to represent opposing sets, but it is not quite that simple because COP and AG responses often appear in the same protocol. Nearly 50% of nonpatient protocols include at least one of each. The majority of COP answers occur in responses to Cards II, III, and VII. The distal features of those blots that foster *M* translations also make it easy to characterize the movement as having a positive interaction. However, those same features also make it easy to characterize the movement as aggressive. It is for this reason that the baselines or expected frequencies for both COP and AG are one.

Interestingly, the presence of both COP and AG answers occurs much less frequently in the protocols of patients, only about 25%. This may be because patients tend to be more fixed in their sets about interpersonal exchange. In any event, interpretive postulates concerning either of these special scores should not be formulated until the data for both are considered.

About 80% of nonpatients who *do not* have an avoidant style give at least one COP response and about 40% give more than two COP answers. The frequencies for nonpatients who *have* an avoidant style are quite different. Only about 30% give at least one COP response, *regardless of R*, and fewer than 10% give more than two COP answers. About 50% of patients give at least one COP answer, but only about 20% give two or more.

Persons who give multiple COP answers, especially more than two, are prone to be outgoing and seem to have an optimistic approach to interpersonal relations. It might be expected that introverts give multiple COP answers more than others, because they give more *M* responses than persons with other styles, but *that is not true*. The proportion of individuals who give multiple COP responses is about the same for ambiverts and extroverts as for introverts.

About 70% of nonpatients, including those with an avoidant style, give at least one AG response, but only about 20% give two or more. Among patients, about 50% give at least one AG answer and approximately 35% give two or more. Individuals who give multiple AG responses are disposed to view interpersonal relations as being routinely marked by some manifestations of competition or aggression. This does not necessarily mean that the aggressiveness is asocial or antisocial. Many people view socially acceptable forms of aggressiveness (dominating, teasing, arguing, etc.) as routine aspects of everyday behavior. Typically, these people also have COP responses in their protocols. On the other hand, the presence of multiple AG responses, especially three or more, in a record that is void of COP responses often identifies persons whose aggressiveness alienates others and, in some cases, may take on asocial or antisocial features.

It is also important to review the codings for the answers that contain the COP and AG scores. At times, the codings will include negative features, such as *S*, poor form quality, unusual combinations of determinants, or other special scores. Any of these may alter the otherwise positive implication of COP answers, or escalate the potentially negative implication of AG responses.

For instance, a COP answer that contains a minus form quality and an INCOM2 special score cannot be regarded very positively. Similarly, some COP answers will also contain an AG special score and, generally, these are not very favorable responses when considered in the context of representing one's conceptions about interpersonal exchange.

Potential Finding 1: When the value for COP is zero, and the value for AG is zero or one, it is probable that the person does not anticipate positive interactions among people as a routine event. People such as this are prone to feel less comfortable in interpersonal situations, and they may be regarded by others as being more distant or aloof. This does not preclude mature and/or deep relationships with others but, in general, they are not perceived by others as being noticeably gregarious, and they often remain more on the periphery during group interactions. Proceed to Step 9.

Potential Finding 2: When the value for COP is zero or one and the value for AG is two or more, or when the value for COP is two and the value for AG is greater than two, it is likely that the person perceives aggressiveness as a natural part of interpersonal relationships. People like this often are noticeably forceful or aggressive in their everyday behaviors. Sometimes, these behaviors represent a defensive tactic designed to contend with a sense of insecurity in interpersonal situations but, often, they simply reflect a learned way of

interacting with others. The specific manifestations of the assertiveness or aggressiveness will vary considerably depending on other personality variables and the nature of the situation. Proceed to Step 9.

Potential Finding 3: When the value for COP is one or two and the value for AG is zero or one, it is reasonable to assume that the person usually anticipates positive interactions among people and is interested in participating in them. The specific patterns of interaction ordinarily will be defined by other features of the person, especially coping styles and self-image. Proceed to Step 9.

Case 12 Finding Positive

His 21-response protocol contains two COP and one AG. This suggests that he is open to exchange with others and typically anticipates a positive experience. On the other hand, one of his COP answers has an FQ coding of minus, both COP responses contain *FC'* determinants, and both include unusual secondary contents (*Fd* and *Sx*). This composite suggests that his perceptions about exchanges with others may be more atypical than implied by the COP score, and may be more consistent with his recent interpersonal history.

Case 13 Finding Positive

Her 25-response protocol contains one COP and no AG, indicating that she seems open to interpersonal exchanges and usually expects them to be positive. There is nothing especially unusual about the coding for the COP response, except that it involves animals rather than humans. In some ways,

Case 12. Interpersonal Perception Data for a 47-Year-Old Male.

R = 21		COP & AG RESPONSES	
a:p = 8:5	CDI = 3 SumT = 3 [eb = 9:12]	HVI = No Fd = 2 H = 3	III 6. D+ Ma.mp.FC'.FD.CFo H,Fd,Cg P 4.0 COP, MOR,GHR V 11. D+ Ma.FC'~ H,Hh,Sx 2.5 COP,PHR VIII 16. W+ FMa.CFo 2 A,An,Fd P 4.5 AG,MOR,PHR
Sum Human Contents = 6 [Style = Extratensive]			
GHR:PHR = 5:2			
COP = 2	AG = 1	PER = 1	
Isolation Indx = 0.24			

Case 13. Interpersonal Perception Data for a 29-Year-Old Female.

R = 25	CDI = 3	HVI = No	COP & AG RESPONSES
a:p = 4:6	SumT = 3 [eb = 7:8]	Fd = 3	II 3. D+ FMa.FC.FC'o 2 A,Id,Hh P 3.0 PER,COP
Sum Human Contents = 4 [Style = Extratensive]		H = 1	
GHR:PHR = 4:0			
COP = 1	AG = 0	PER = 4	
Isolation Indx = 0.12			

this finding tends to coincide with the findings from both Steps 6 (which included only one Pure *H*), and 7 (which revealed four GHR codings). Namely, that she expects exchanges to be positive, but tends to keep most of her involvements with others on a more superficial level.

Potential Finding 4: When the value for COP is two or three and the value for AG is two, it suggests that the person is open and interested in positive interaction, but many of the interactions will be marked by more forceful or aggressive forms of exchange. These are people who perceive forms of aggressiveness as a natural mode of exchange among people but who also anticipate that exchanges generally will be positive. Proceed to Step 9.

Potential Finding 5: When the value for COP is three or more and the value for AG is zero or one, or if the value for COP is more than three, and the value for AG is two or less, it is probable that the person usually is regarded by others as likeable and outgoing. People such as this typically view interpersonal activity as a very important part of their daily routine, and are commonly identified by those around them as among the more gregarious in group interactions. They regularly anticipate and seek out harmonious interactions with others. Proceed to Step 9.

Potential Finding 6: A value for COP of three or more and a value for AG that exceeds two is a very unusual finding. It most likely indicates the presence of a serious conflict or

confusion concerning the appropriate mode of interpersonal behavior. People such as this do not understand others very well and are prone to be less consistent and/or predictable in their interpersonal routines. Proceed to Step 9.

Step 9: PER

Personal responses (PER) are not uncommon. More than half of adult nonpatient protocols contain at least one and nearly 20% contain two. Children often give more PER answers than adults. When a person articulates an answer in a way that includes PER, it represents a way of reassuring oneself and, at the same time, warding off challenges from the examiner. It is a natural human tactic and most people do this from time to time. Being confident about one's knowledge is reassuring. However, some people do this excessively, and it is not simply for personal reassurance. Instead, it is a form of intellectual authoritarianism that is used as a defense against perceptions of weakness by others, and sometimes as a way of dominating others. Individuals who do this are inclined to alienate people because of the frequency and forcefulness by which they express knowledge and opinions. Often they are regarded as narrow minded or persons who "know it all."

Potential Finding 1: When the value for PER is two or three, it suggests that the individual is somewhat more defensive in interpersonal situations than are most people, and often relies on displays of information as a way of maintaining

security in those situations. This does not necessarily impair interpersonal relations. It merely signifies that the person may be less secure in situations involving challenges than might be preferred. Proceed to Step 10.

Potential Finding 2: When the value for PER exceeds three, it is reasonable to postulate that the person is unsure about his or her personal integrity in interpersonal situations, and is prone to become defensively authoritarian as a way of fending off perceived challenges to the self that arise in those situations. Individuals such as this are usually regarded as rigid or narrow minded by others and, as a consequence, they often have difficulties in maintaining close relations, especially with those who are not submissive to them. Proceed to Step 10.

Case 13 Finding Positive

She gave four PER responses. She probably finds herself challenged rather easily in interpersonal situations, and tends to use an authoritarian approach to ward off perceived challenges. This seems incongruous for a person who is passive and dependent, but in this instance, the tactic has probably evolved because of frequent needs to defend her inflated sense of personal worth.

Step 10: Isolation Index

This Index ($Bt + 2Cl + Ge + Ls + 2Na/R$) is comprised of contents that have low baseline rates. Two of the five, botany and landscape, appear in many records but with low frequencies. The

remaining three, clouds, geography, and nature, occur with lower frequencies, and have baseline rates close to zero. When summed, or when the sum is adjusted by doubling the value for two of the three that occur infrequently, the resulting value usually constitutes only a modest proportion of the number of responses that have been given. When the result is greater, exceeding at least one-fourth of R , some interesting interpersonal correlates are noted.

Potential Finding 1: When the Isolation Index falls between .26 and .32 it indicates that the person tends to be less active in social interaction than might be expected. This is not an uncommon finding. It occurs among more than 15% of both patients and nonpatients. It does *not* reflect social maladjustment or social conflict. Instead, it represents less interest in or, possibly, more reluctance to become involved in social intercourse routinely. When the latter is true, the record usually contains at least an average number of human contents and the value for COP typically will be at least one, signifying that interest exists but participation is limited. Proceed to Step 11.

Potential Finding 2: When the Isolation Index is .33 or greater, it is likely that the person is more socially isolated. Persons for whom this finding is positive often give fewer than average human content responses, and rarely give two or more COP answers. People like this seem to find it difficult to create

Case 13. Interpersonal Perception Data for a 29-Year-Old Female.

R = 25	CDI = 3	HVI = No	COP & AG RESPONSES
a:p = 4:6	SumT = 3 [eb = 7:8]	Fd = 3	II 3. D+ FMa.FC.FC'o 2 A,Id,Hh P 3.0 PER,COP
Sum Human Contents = 4 [Style = Extratensive]		H = 1	
GHR:PHR = 4:0			
COP = 1	AG = 0	PER = 4	
Isolation Indx = 0.12			

and/or sustain smooth or meaningful interpersonal relationships. This finding does not indicate a pathological kind of withdrawal from social intercourse. It merely signals that, for any of a variety of reasons, the person does not connect well with others and often finds himself or herself relatively void of rewarding relationships. Proceed to Step 11.

Step 11: M and FM Responses with Pairs

The final step in this cluster entails an evaluation of the human and animal movement responses that contain a coding for a pair (2). Often, these answers will have been read previously during the search through data about self-perception. The review here is for a different purpose. It is to determine if there is any consistency or patterning in the way interactions are described, and also to search for unusual words or word usage concerning the interactions. Usually, this review will not lead to the formation of new postulates, but in some cases it will clarify or expand previously developed postulates regarding social interaction.

Case 12 Responses

III 6 "Back to Africa, ths ll 2 cannibals or st dancg around a cauldron, gettg ready to cook st, I dk wht tht cntr is tho." (Inquiry) "Well it ll thyr gettg ready to cook ths meat thy got hangg up, lik som A's tht thy skind & hung up." [E: Show me som of the prts so I can c it] "Thes r the cannibals (D9), I didn't mean cannibals, thy eat peopl, j lik natives, thyr blk and skinny, c the legs & heads & thy got ths cod-piece stickg out & ths is the meat (D2) hangg up bk here behind thm, it's skinned meat." [E: Skinned meat?] "It's red lik meat ready to cook."

VII 14 "Lik 2 kids lookg at eo, j kinda peaceful lik." (Inquiry) "Yeah lik 2 littl girls, 1 here & the othr ovr here (D2), j fr the waist up, thy got pony tails stickg up, thyr not doing athg, j lookg."

VIII 16 "Mayb a cpl of hungry rats feedg on the carcass of som A." (Inquiry) "Well, thers not much left ther of the A, j som bones in the middl prt (D3) & som flesh dwn here (D2) & thes r the rats (D1)." [E: Flesh?] "Well, I dont mean skin, lik exposed flesh caus its all pinkish & orange lik under the skin, the rest is bones & thes bastards r pickg at it."

Case 12 Review

These are very interesting answers when considered from the perspective of interpersonal relations. Two contain dependency features, *Fd*, include reference to past aggression (animals skinned and carcass), and both are MOR. It is a strange mixture that probably reflects some of the confusion that he has about relations with others. It could be speculated that they imply a negative and costly relationship between self-integrity and dependency needs. The third answer is "peaceful," but involves a form of passive immobilization (just looking). Although only three answers are involved, the substance portrays a more ominous interpersonal picture than was implied from the more positive findings in Steps 6, 7, and 8.

Case 13 Responses

II 3 "Oh wow, tht ll a cpl of bears steppg in a bucket of paint or st, lik blk bears gettg into trbl." (Inquiry) "Well ths prt is the bears (D6), kinda bent ovr, c their feet r in ths red bucket dwn here (D3) & thyr gettg paint all ovr thm & thyr touchg their paws togtthr up here (D4), just lik thy play, lik in Yellowstone Park, I've seen it on the TV."

III 7 "Thes thgs (D2) ll red devils tht r fallg, I dk wht the cntr thg is (D3)." (Inquiry) "Well, u c littl red devils now & thn in cartoons & thyr lik ths but thy ll thyr fallg here, lik upside dwn w their long tails out behind thm."

IV 8 "Yuck, its lik 2 snakes on the sides." (Inquiry) "C here (D4) lik thyr coiled up, lookg around, I don't lik snakes at all, c ths is the head & here is the tail."

IV v9 "There's 2 lions here too, one on e side." (Inquiry) "Thyr j standg here, c one on e side w the long tail stickg out, c ths is the head & the body (outlines small area at the bottom of D6), j lik 2 lions."

VII 14 "Children, 2 children, lookg at eo, thyr cute, I lik ths one." (Inquiry) "Its j the upper prts of thm (D2), lik the chest & the heads & thyr lik twins, girls, c the hair is all fixed up pretty on top lik u do w a comb."

Case 13 Review

Four of these five answers are marked by passivity. Possibly more important are the several comments and descriptors that are included in four of the answers, "Oh wow . . . getting in trouble . . . just like they play," ". . . little red devils . . . in cartoons . . . upside down," "Yuck . . . I don't like snakes at all," ". . . they are cute, I like this one . . . fixed up pretty on top like you do with a comb." The tenor of this verbiage has a juvenile quality, and raises a question about whether her interpersonal relations are also marked by that feature. The comments are not inappropriate, but they are somewhat unusual for an adult, and may suggest that her relations with others are not as mature as might be expected.

SUMMARIZING FINDINGS

Postulates generated from the various steps should be integrated and summarized. As with other clusters, care should be taken to include positive as well as negative features and, when possible, contradictory postulates should be resolved or explained.

Case 12 Summary

Generally, the findings concerning this 47-year-old man are more negative than positive. He appears to have some important needs for dependency that are not being met adequately (Step 4). He also seems to have a marked need for emotional closeness that is unfulfilled. This has burdened him with an irritating sense of loneliness (Step 5). These features

seem inconsistent with his long-term history, but not inconsistent with several of the findings concerning self-perception. They raise a question about whether they may have evolved more recently as a result of somehow feeling overwhelmed. They also raise a question about the integrity and security of his marriage, which probably should be scrutinized more closely.

He seems to be interested in others, and probably has an understanding of people that is well grounded in reality (Step 6). Some findings suggest that he is prone to be adaptive in his interpersonal activities, and usually anticipates harmonious relationships (Steps 6, 7, and 8). However, other findings suggest that he seems to be confused about interpersonal relations, and may view them more ominously than seems to have been the case previously (Step 11). The latter probably offers a more accurate picture if he is experiencing considerable disorganization in his psychological life.

Case 13 Summary

The findings for this 29-year-old woman suggest that she usually prefers to adopt a more passive and dependent role with others (Steps 3 and 4). These findings are quite important when considered in light of the self-perception results, indicating that she is highly self-centered. Apparently, she has found that being passive and dependent is a good way of gaining the reassurance that she wants about herself. However, she currently has a reasonably strong sense of longing and/or loneliness (Step 5). Her history includes a failed marriage, and her more recent emotional relationships appear to be transient. Collectively, they may represent insults to her self-esteem.

She seems to be interested in others, but her perceptions of people tend to be based more on fantasy, or distortions rather than real experience (Step 6). Ordinarily, she is inclined to engage in interpersonal behaviors that are adaptive and regarded favorably by others (Steps 7 and 8). Although she is open to interpersonal exchanges, and usually expects them to be positive, she is also apt

to be defensive in interpersonal situations and often will rely on authoritarianistic displays as a way of reassuring herself and avoiding or contending with challenges from others (Step 9). Many of her relationships may be marked by less maturity than might be expected, and it is possible that some of these characteristics will be perceived less favorably when she interacts with people, especially those who she expects to depend on for the gratification of her personal needs (Step 11 plus self-perception findings).

RESEARCH AND CONCEPTS RELATED TO INTERPERSONAL VARIABLES

Some of the variables in this cluster also appear in other clusters. In some instances, findings and concepts concerning them have already been described in preceding chapters, and no further explanation is required here. These include findings and concepts regarding the HVI (Chapter 17), and the texture response (Chapter 14). Other variables in this cluster, such as the CDI, $a:p$ ratio, and human contents, have also been discussed previously in Chapters 16, 19, and 20, respectively. However, some additional findings or concepts about them are important to note here because of their direct linkage to interpersonal perceptions or behaviors.

THE CDI

As noted in Chapter 16, the CDI evolved as a byproduct of research related to depression, and some of the findings concerning the Index revealed that it is positive much more frequently among outpatients who complain about interpersonal problems than those who do not (see Chapter 16, Table 16.2). It was mentioned in Chapter 16 that only 6 of the 11 variables, which appear in three of the five criterion tests for the CDI, relate mainly to interpersonal features ($COP < 2$, $AG < 2$, $p > a+1$, $Pure H < 2$, $Isolation Index < .24$, and $Fd > 0$). A seventh variable ($SumT > 1$) relates to both affect and interpersonal relations. Two of the other four variables relate to affect

($WSumC < 2.5$, $Afr < .46$). They comprise one of the criterion tests. The remaining two variables pertain to resources and controls ($EA < 6.0$ and $AdjD < 0$), and also comprise one of the criterion tests.

The fact that 4 of the 11 variables seem to have no direct relation to interpersonal features raises a question about whether some composite of them could create false positive CDI scores of four or five. Technically, the answer is no, because even if all four were positive, the CDI value would be two. However, some or all of them do tend to be positive in the protocols of persons with an avoidant (high *Lambda*) style. Persons with an avoidant style often give very few *M* responses, and it is not uncommon for their records to be void of COP or AG answers. If so, a third point would be added to the CDI score, thereby increasing the likelihood of a positive CDI value.

Actually, persons with an avoidant style are more likely to have positive CDI values. For instance, 405 of 1,736 protocols from patients and nonpatients have CDI values of 4 or 5. A Pearson correlation between *Lambda* and the CDI for this group yields $r = .283$, but a categorical correlation, *Phi*, calculated by subdividing both *Lambda* and CDI values by ranges, yields a coefficient of .482. This reflects the fact that the total sample of 1,736 protocols contains 487 protocols with *Lambda* values of 1.0 or greater, and about 46% of those are also positive on the CDI.

Conceptually, it is not surprising to find positive CDI values among persons with an avoidant style. These are people who tend to avoid complexity and, typically, are somewhat reserved about emotional exchange. It would, however, be erroneous to assume that the social immaturity indicated by a positive CDI in the protocol of an individual with an avoidant style is simply a result of that style. It contributes, but it is not a one-to-one relationship. In the nonpatient sample of 600 adults, 58 have an avoidant style but, only 6 have a positive CDI. On the other hand, a positive CDI value is found in 165 (31%) of 535 outpatient records. In 92 of those cases (55%), an avoidant

style also exists (Exner, 2001). Pires (2000) found a positive CDI in 48% of the records of 309 Portuguese nonpatient adults, and more than half of those also evidenced an avoidant style. Pires noted that the majority of protocols in which both the CDI and *Lambda* values are positive were given by persons with limited educational backgrounds. Young, Justice, and Erdberg (1999) noted that a positive CDI is one of eight characteristics that contribute to the identification of incarcerated males with lengthy histories of violent behavior.

A positive CDI in the protocol of a younger person tends to be more common than for adults. For instance, 15% of the records from nonpatient 10-year-olds have a positive CDI, as do 24% of the protocols from nonpatient 12-year-olds, and 16% of the records from nonpatient 15-year-olds. Nonetheless, it should not be viewed indifferently when appearing in the protocol of a younger person, especially if some evidence of adjustment problems exists. For instance, Goldstein (1998) found that higher CDI scores have a relation to verbal aggression. Holaday and Whittenberg (1994) found that nearly half of a group of 98 children and adolescents who had been severely burned have a positive CDI.

THE *a:p* RATIO

Numerous findings and concepts regarding the *a:p* ratio were described in Chapter 19. There are other data concerning the relationship of the ratio to interpersonal behaviors. Although substantially high values for active movement often appear, research seeking specific behavioral correlates with active movement has yielded negative findings. A high frequency of active movement responses does not equate with an unusual frequency of active behaviors, or with any special class of behaviors. This is apparently because most people give more active than passive movement responses. For instance, on average, adult nonpatients give about twice as many active movement answers as passive responses. Only 2% of 600 nonpatient adults give records in which the value for passive movement is more than

one point greater than the value for active movement responses. The proportions of records from nonpatient children in which passive *m* exceeds active *m* by more than one point ranges from 2 to 12%, depending on the age group (Exner, 2001).

The proportions tend to be different for some patient groups. About 30% of the protocols from 535 outpatients have an *a:p* ratio in which *p* is greater than *a* by more than 1 point. This is also true in approximately 25% of the records of 193 first admission affective disorders, and 18% of the protocols from first admission schizophrenics (Exner, 2001).

Exner (1978) devised an index of behavioral passivity using 20 items in the Katz Adjustment Scale (KAS). The entire KAS was completed by a significant other for 279 outpatients in a long-term treatment effects study 9 to 12 months after treatment had been initiated. The design of study required testing and behavioral evaluations at 9 to 12 month intervals for at least three years, regardless of whether treatment had terminated. Examination of the Rorschachs collected at the 9 to 12 month interval revealed that 83 of the 279 protocols had *a:p* ratios in which *p* exceeded *a* by more than 1. Their mean score for the passivity index was 11.6 ($SD = 4.2$). A comparison group of 83 other protocols was randomly drawn from the remaining 196 records. The mean passivity score for that group was 5.3 ($SD = 3.3$), $p < .001$.

In a related study, videotapes were recorded for the first two sessions of two groups, of eight persons each, participating in assertiveness training (Exner & Kazaoka, 1978). Rorschachs were administered prior to the training, and revealed that 7 of the 16 trainees had *a:p* ratios in which *p* exceeded *a* by more than one. The videotapes were coded for the frequencies of verbal and non-verbal dependency gestures by each subject, by two groups of three raters each. One group of raters coded only the audio segment of the tapes, whereas the second group used both the audio and visual data. The 7 persons who began the training with the passive *a:p* ratios were coded for nearly twice as many verbal dependency

statements as the other 9 participants, but approximately the same number of nonverbal dependency gestures as the other participants.

These findings seem to indicate that when people give significantly more passive movement responses, that is, when p exceeds a by two or more points, a tendency toward more passive, and possibly dependent, behaviors exists. Some data supporting this postulate is found among 79 outpatients. They were rated by their therapists as being "excessively passive" for treatment participation, two months after treatment began. Fifty-six of the 79 (71%) had $a:p$ ratios in their pretreatment records in which p exceeded a by more than one point.

As noted above, the pretreatment protocols of 535 outpatients include about 30% that have values for p that exceed a by more than one point. However, that finding is somewhat misleading. When the group is subdivided by other response styles, a different picture evolves. For instance, the group contains 151 introversives, and about 50% have values for p that exceed a by more than one point. This is also true for only about 27% of the 201 patients in the group who have an avoidant style, 16% of 73 patients who are extratensive, and 15% of 110 patients who are ambitents. This suggests that the tendency toward interpersonal passivity is more common among those with an ideational style or, possibly, among those less involved with the complexities of the world. Thus, the presence of a passive behavioral style, as represented by $p > a+1$, should be regarded as more deviant when found in the protocol of an extratensive or ambitent person. As such, the style is likely to have a more disruptive impact on the psychology and adaptation of the person.

FOOD RESPONSES AND THE $a:p$ RATIO

Schafer (1954) postulated that Fd responses are related to oral dependency characteristics. Whereas the $a:p$ ratio will sometimes indicate a stylistic tendency toward passivity in interpersonal behaviors, that tendency appears to be even

more marked if the record includes at least one Fd response. A review of 54 protocols of outpatients, diagnosed according to *DSM-III-R* criteria as being "Passive-Dependent" personality disorder, found that 41 (79%) had $a:p$ ratios in which p exceeds a by more than one point, and 33 of the 41 records contain at least one Fd answer.

In the Exner and Kazaoka study (1978), the four assertiveness training participants who were coded highest for dependency gestures had at least one Fd response in their records. Those findings provoked another videotape study, involving a class of 24 sixth-grade students. Each student in the class was administered the Rorschach during school hours. Three weeks later, the class was video recorded twice during one week, in both instances during art instruction. The students were learning to paint with acrylics, and often had reason to request aid from the teacher. The videotapes were coded for (1) requests for assistance from the teacher and (2) follow-up questions to the teacher. Six of the 24 students had $a:p$ ratios in which p exceeded a by more than one point. Three of those students did make more requests for assistance than the other 21 pupils, but the other three did not. Actually, a group of seven students, including the three mentioned above, made nearly twice as many requests for help, and nearly four times as many follow-up questions after the help was provided, than did the other 17 students. The protocols of all seven contained at least one Fd response, and four of the seven contained more than one.

The Fd response, taken alone, probably offers only a strong hint about dependency needs or a dependency orientation. A much more elaborate approach to the study of dependency, the Rorschach Oral Dependency Scale (ROD), has been formulated by Masling and his colleagues (Masling, Rabie, & Blondheim, 1967). It is based on psychoanalytic theory and involves the coding of 16 types of responses that included reference to items such as food, food sources, food objects, food providers, oral instruments, passivity, gifts. It has been studied extensively and appears to have

sturdy validity (Masling, O'Neil, & Katkin, 1982; Bornstein & Masling, 1985; Masling, 1986; Bornstein & Greenberg, 1991; Bornstein, 1992). For instance, ROD scores clearly relate to some interpersonal events and their impact (Bornstein, Bowers, & Robinson, 1997).

HUMAN CONTENT

A discussion of human contents was included in Chapter 20, but some added information may be useful to put these variables in an appropriate interpersonal perspective. It is assumed that when the number of human contents is in the average range, in relation to the *EB* data, the person is probably as interested in others as much as most people. On the other hand, if the number of human contents is less than expected, in the context of *EB*, the person probably is not as interested in others as most people. This finding is often positive for those who are emotionally withdrawn, socially isolated from, or in conflict with their environment.

Ames, Metraux, and Walker (1971) found that human contents tend to increase gradually through each of the early developmental years to about age 10, after which the proportion remains relatively stable through adolescence. Those findings are consistent with the nonpatient data for younger clients (Exner, 1991).

When all human contents are considered, the data for ages 12 through 16 are not unlike those for nonpatient adults. Lower than average frequencies of human content are more common among individuals who do not appear to identify closely with typical social values. A significantly lower than average frequency of human contents has been noted by Walters (1953) in the records of criminals, and by Ray (1963) and Richardson (1963) among adjudicated delinquents. Exner, Bryant, and Miller (1975) found that the protocols of 15 adolescents, awaiting sentencing for serious assault crimes, included six with no human content, and five others in which the frequency of human contents was one or two. Several studies (Halpern, 1940; Morris,

1943; Stotsky, 1952; Goldman, 1960; Piotrowski & Bricklin, 1961) have found positive relationships between the frequency of human contents and treatment effectiveness.

Draguns, Haley, and Phillips (1967) have suggested that the frequency of human content varies with cognitive development and the potential for social relations. Their review of literature suggests that low frequencies of human contents may be an effective index from which to differentiate those who have withdrawn from social contacts. Data for 430 outpatients who agreed to participate in several treatment effects studies seem to support this postulate. All participants were rated twice by therapists during the first six weeks of treatment for various characteristics. The 50 who received the highest ratings for interpersonal isolation had, on the average, very low frequencies of human contents ($M=1.84$, $SD=1.21$). The 50 who received the highest ratings for being interpersonally active had much higher frequencies of human content answers ($M=5.18$, $SD=2.09$), the majority of which were Pure *H* (Exner, 1978).

Although the frequency of human contents is important, because it provides some indications about interest in people, the frequency of Pure *H* responses adds important information concerning views of, and attitudes toward, the social environment. Beck (1945) suggested that as *H* tends to decrease and *Hd* answers tend to increase, it reflects people who feel constricted in their world. Sherman (1952) and Vinson (1960) found significantly more *Hd* than *H* in the records of schizophrenics than among nonpatients. Molish (1967) has suggested that as the balance of human contents shifts away from *H*, in favor of *Hd*, it is indicative of a constrictive form of defense. Data presented by Exner (2001) indicate that about 60% of the human content responses given by nonpatients are Pure *H*. In contrast, the proportion of Pure *H* answers falls to about 43% among outpatients, 39% among first admission affective disorders, and about 37% among first admission schizophrenics.

THE GHR:PHR RELATION

The special scores, GHR and PHR, were devised by Perry and Viglione (1991) as one component in a series of variables selected to create the Ego Impairment Index (EII). The EII was developed, using a factor analytic method, to provide an index that could identify deficits in reality testing, reasoning, and the quality of object relations. The early work concerning the EII focused on issues of depression, but it quickly became obvious that several of the component variables relate to cognitive operations. Thus, the research was expanded to study schizophrenia and psychoses (Perry, Viglione, & Braff, 1992). Perry and Braff (1994) found a significant correlation between information processing deficits and EII scores, a finding that has been partially replicated with patients diagnosed as schizotypal personality disorder (Cadenhead, Perry, & Braff, 1996).

In the course of researching the EII, attention was also afforded to the variables that comprise it. Two of those variables, GHR and PHR responses (originally called human experience variables, GHE and PHE), were entered into a weighted equation, designated as the Human Experience Variable (HEV). It was validated using data from 105 nonpatient women, and found to be significantly related to the quality of interpersonal relationships (Burns & Viglione, 1996). Subsequently, the algorithm used to assign GHE or PHE codings to responses was carefully reviewed, and some modifications occurred. Concurrently, it was decided to eliminate the scheme of weighting GHE and PHE, and focus on the raw scores for each of the two categories, and at the same time changing the nomenclature to "human representation" rather than human experience. For research purposes, a raw score difference (GHR:PHR) is used to create the HRV (human representational variable), but tests of data from various samples indicates that the two variables, GHR and PHR, are probably most easily interpreted in the context of a relationship (Viglione, Perry, Jansak, Meyer, & Exner, in press).

One of the special features of the GHR and PHR coding is that the criteria used involve several coding categories (determinants, form quality, content, and special scores), and includes the evaluation of both human content responses and answers that have animals in human-like activities.

The GHR and PHR variables are dichotomous. GHR answers correlate with interpersonal histories and/or behaviors that are usually considered to be effective and adaptive. People who give numerous GHR answers usually are well regarded by others and their interpersonal activities tend to be relatively free of chaos. As might be expected, the highest frequencies of GHR answers usually appear in nonpatient protocols, but it is not unusual to find a substantial number of GHR answers in the records of a variety of patients whose problems may not extend to the interpersonal area. Typically patients with severe pathological disturbances give low frequencies of GHR answers (Exner, 2000).

At the other extreme, PHR responses correlate highly with patterns of interpersonal behavior that are ineffective or maladaptive. Individuals who give numerous PHR answers usually have interpersonal histories that are marked by conflict and/or failure. They seem to manifest a kind of social ineptness that frequently leads to being shunned or rejected by others. In some instances, their lack of social awareness breeds inappropriate social behaviors and can easily induce unwanted conflict. PHR responses typically appear with a substantial frequency in protocols of individuals suffering from more serious disturbances. They occur with a low to moderate frequency in the records of most patient groups, and low frequencies of PHR answers are not uncommon in the protocols of nonpatients. Some descriptive statistics for GHR and PHR are shown in Table 21.2.

GHR and PHR frequencies have only limited interpretive value unless the record contains at least *three* human representational responses. Although the values for GHR and PHR can be interpreted separately, the most logical interpretation involves a comparison of the two scores with the

Table 21.2 Descriptive Statistics for GHR and PHR for Four Groups.

Group	Mean	SD	Range	Median	Mode	Sk	Ku
Nonpatients <i>N</i> = 105							
GHR	4.52	1.67	1-9	5	5	0.24	-0.19
PHR	1.57	1.25	0-6	1	1	0.74	0.33
Personality Disorder <i>N</i> = 155							
GHR	3.57	1.57	0-7	4	3	-0.14	-0.14
PHR	2.45	2.64	0-21	2	2	4.68	30.40
Inpt Depressive <i>N</i> = 170							
GHR	2.68	1.51	0-9	2	2	1.09	2.36
PHR	3.06	2.29	0-8	3	5	0.37	-0.87
Schizophrenic <i>N</i> = 170							
GHR	2.54	1.97	0-9	2	3	0.94	0.99
PHR	5.81	4.27	0-18	5	5	1.11	1.07

expectation that persons whose interpersonal activities are more adaptive will be likely to give more GHR than PHR responses. For example, Table 21.3 shows the frequencies by which GHR values exceed PHR values for each of four groups.

Thus, interpretively, when the value for GHR is greater than the value for PHR, it can be assumed that the individual generally engages in forms of interpersonal behaviors that are likely to be adaptive for the situation. As the GHR and PHR values become more disparate, with GHR being the greater, the likelihood increases that the person's interpersonal behaviors will be effective in a broad spectrum of interpersonal relations, and usually will be regarded favorably by others. Conversely, when the value for PHR is greater than the value for GHR, it can be assumed that the individual is prone to engage in forms of interpersonal behaviors that are likely to be less adaptive for the situation than might be desirable. As the PHR and GHR values become more disparate, the likelihood increases that the person's interpersonal behaviors will be less effective in many situations and often will be regarded unfavorably by others.

AGGRESSIVE MOVEMENT

The special scores COP and AG were both derived from some of the work and suggestions of Piotrowski (1957). He proposed that *M* responses often translate directly into impressions about the behaviors of people. Undoubtedly Piotrowski was correct, but his hypothesis did not validate when only *M* answers were studied. This is probably because of the low frequency of *M* answers in many records. However, his hypothesis has been supported when all movement answers are included in the analysis of data.

In an early study about aggressive movement, Kazaoka, Sloane, and Exner (1978) rated videotapes, taken during the occupational and recreational therapy activities of seven inpatient groups, for verbal and nonverbal aggressiveness. Each group, containing 10 patients, was taped for two 20-minute segments, once during occupational therapy in which the patients were encouraged to do clay construction, and once during recreational therapy in which each group was divided into two teams of five each to play basketball. The tapes were scored independently by

Table 21.3 GHR Greater than PHR Frequencies for Four Groups.

	SCHIZ <i>N</i> = 170	AFFDIS <i>N</i> = 170	PERDIS <i>N</i> = 155	NONPTS <i>N</i> = 105
PHR greater or equal to GHR	149	101	61	14
GHR greater than PHR	21	69	94	91

three raters using the Fels Institute Aggression Scale. Rorschachs were administered to the 70 patients by seven examiners who had no knowledge of the nature of the study.

The 70 patients were divided into two equal groups twice. The first division was created by a median split of the distribution of their scores for verbal aggressiveness. The resulting groups of 35 each did not differ significantly for Rorschach AG scores (Upper Half=3.07, $SD=1.98$; Lower Half=1.71, $SD=1.57$). However, when the 15 patients at each extreme of the verbal aggressiveness score distribution were compared, they differed very significantly for AG (Upper 15=4.21, $SD=2.03$; Lower 15=0.94, $SD=1.09$). The second division of the group was based on a median split of scores for physical aggressiveness. A comparison of the resulting subgroups yielded a substantial difference (Upper Half=3.57, $SD=1.81$; Lower Half=1.06, $SD=1.13$). When the 15 patients at each extreme of the distribution of scores for physical aggression were compared, the magnitude of the difference was much greater (Upper 15=4.16, $SD=1.94$; Lower 15=0.78, $SD=1.08$). When the scores for verbal and physical aggressiveness were combined, with the distribution split at the median again, the two groups did not differ very much (Upper=4.06, $SD=1.83$; Lower=2.79, $SD=1.74$) but, again, the 15 patients at each extreme differed considerably (Upper 15=5.39, $SD=2.01$; Lower 15=1.88, $SD=1.2$).

In another study, 33 sixth-grade children, who had been administered the Rorschach 2 to 3 weeks earlier, were videotaped during two 30-minute free periods in their classroom (Exner, Kazaoka, & Morris, 1979). The tapes were coded independently by two raters, using the Fels Aggression Scale, for verbal and nonverbal aggressiveness. The group was divided twice, once using a median split of the distributions for verbal aggression and the second time using a median split for nonverbal aggression. In each instance, the middle subject was discarded. The mean AG scores for the upper half were significantly greater than for the lower half in both instances

(Upper Verbal=3.86, $SD=1.1$; Lower Verbal=1.2, $SD=0.87$; Upper Physical=3.99, $SD=1.3$; Lower Physical=0.96, $SD=0.89$).

The records of the 430 outpatients who volunteered to participate in several treatment effects studies include 82 (19%) that contain at least three AG answers. Therapist ratings, collected at least three times during the first 10 sessions, did not include any items specifically relating to a history of aggressive activity, but ratings were requested for manifestations of hostility during the sessions, and a second group of items concerned attitudes toward people. A comparison group of 82 patients was randomly drawn from the remaining 348 participants. Forty-one of the 82 target patients were rated as manifesting significant hostility during at least two of the three sessions rated, as contrasted with 15 patients from the comparison group, and 51 of the 82 target patients were rated as being markedly hostile in their attitudes toward people, as contrasted with 22 subjects from the comparison group.

These studies appear to support the notion that elevations in AG signify an increased likelihood for aggressive-like behaviors, either verbal or nonverbal, and they may also indicate the presence of attitudes toward others that are more negative and/or hostile than is customary. They suggest that people with elevations in AG perceive the social environment as routinely involving aggressiveness, and have incorporated that attitude or set. Consequently, it is not uncommon to find that aggressiveness marks some of their behavior. However, it is important to caution that the presence of AG responses does not necessarily mean that aggressive-like behaviors or attitudes will be antisocial or unacceptable.

Actually, nonpatients tend to produce more protocols containing at least one AG answer than do most patient groups. For instance, in the sample of 600 nonpatient adults, 380 (63%) gave at least one AG response, and 72 (12%) gave more than two AG answers. In contrast, a sample of 535 outpatients included only 257 (48%) who gave at least one AG response, and only 19 persons (4%)

who gave more than two AG answers. Similarly, a sample of 193 first admission affective disorders included only 75 (39%) who gave at least one AG, and 16 of those (8%) gave more than two. On the other hand, schizophrenics do tend to have more AG than other groups. In a sample of 200 first admission schizophrenics, 122 (61%) gave at least one AG, and 52 (26%) gave more than two AG.

Meloy and Gacono (1992) suggested coding of aggressiveness should be expanded to include special scores for aggressive content, aggressive potential, aggressive past, and sadomasochism. Goldstein (1998) noted that neither AG, nor the Meloy and Gacono aggression categories correlate significantly with any categories of observed aggression among 47 adolescent psychiatric patients. White (1999) also reported that none of the "extended" aggression categories correlate significantly with measures of "real-world" aggressive behavior for 391 criminal offenders, but does suggest that they do provide useful clinical information of preoccupations with aggression. Baity and Hilsenroth (1999) studied the array of aggression variables in the protocols of 78 patients who met the *DSM-IV* criteria for an Axis II disorder. They suggest that the coding for aggressive content (AgC) holds considerable promise as a source of added information regarding aggressive features within the individual. Ornduff, Centeno, and Kelsey (1999) studied COP and AG responses in 21 sexually abused, and 14 nonabused girls between the ages of 6 and 15. They note that the two groups could not be differentiated by either COP or AG scores when studied separately. However, they did find that the frequency of answers in which both COP and AG appear together occurred much more often in the records of the sexually abused youngsters.

COOPERATIVE MOVEMENT

COP answers appear at least once in about 83% of 600 adult nonpatient records. The introversive, extratensive, and ambitent groups all have median and modal values of two, while the median and

modal values for those with an avoidant style is one. In contrast, COP appears at least once in only about 57% of 535 outpatient protocols. COP is not easily reported on some Cards. It occurs in less than 20% of the *M* and less than 15% of the *FM* answers on Cards I, VIII, IX, and X. It is almost nonexistent among answers to Cards IV and VI, and has a very low frequency to Card V. It occurs most often to Card III, and next most frequently to Cards II and VII.

In two sociometric studies (Exner, 1988), one consisting of peer nominations from 25 third-year high school students, and the second consisting of the same type of peer nominations collected from 35 female college freshmen living in the same dormitory, participants who had more than two COP answers were identified by their peers at a rate five times greater than others as being the one who, "Is the most fun to be with," "Is the easiest to be around," "Is a class leader," and "Is the most trustworthy." Four persons from the group of high school students, and five of the college students, whose records contained no COP responses were never nominated by any of their peers for any of those four items. Conversely, those nine individuals did receive the most nominations for relatively negative items such as, "Is the person I know least about," "Is a person who does not seem to have many friends," and "Is a person I would probably not vote for a class office."

COP also seems to relate with the group therapy process. A review of the audio recordings of 17 outpatients in two groups, taken during three group therapy sessions, reveals that four patients, with more than two COP in their protocols, talked more frequently and for longer intervals, and directed remarks to more group members than did others in the groups. Six patients, with no COP responses in their protocols, talked least frequently and directed remarks to the therapist more often than did others in the groups.

Treatment data suggest that COP is probably an important variable regarding successful termination and/or discharge from hospitalization. For instance, a stratified random sample of 70

outpatients was drawn from the pool of individuals who participated in a multiple retest treatment effects study. The criteria for selection was four-fold, that: (1) each had entered treatment because of interpersonal problems, (2) each had participated in the study for at least two years, (3) each had terminated treatment before the 18th month, and (4) the pretreatment protocol contained either zero or one COP. The selection yielded 31 cases in which there was no COP in the pretreatment record and 39 cases in which the pretreatment record contained one COP (Exner, 1993b).

Information concerning the participants indicated that each had entered one of four treatment models (cognitive therapy, $N=23$; rational emotive therapy, $N=14$; behavioral modeling therapy, $N=13$; dynamic psychotherapy, $N=20$). All 70 individuals terminated treatment between the 8th and 15th month. All were retested between the 9th and 11th month after the onset of treatment, and again between the 18th and 22nd month.

In the 9- to 11-month retest, 37 gave at least two COP responses, 15 had one COP, and the remaining 18 had no COP (none of these 18 had COP in the first test). In the 18- to 22-month retest, the COP distribution showed very little change. All 37 persons who had two or more COP in the first retest, had at least two COP in the second retest, and 34 of the 37 (92%) reported a favorable interpersonal adjustment. Two of the 15 participants, who had one COP in the first retest, had two COP in the second retest, and the remaining 13 continued to give one COP. Twelve of these individuals (80%) also reported a favorable interpersonal adjustment, but three reported reoccurring problems, and one had entered treatment again. None of the 18 persons who gave no COP in the first retest gave COP in the second retest. Ten of the 18 (56%) reported a favorable interpersonal adjustment, but eight reported recurring interpersonal problems and five of the eight had entered treatment again.

A second study focused on a review of follow-up data for 100 first admission inpatient affective disorders (Exner, 1991). Among the admission

protocols, 31 contained two or more COP answers, 36 contained one COP response, and 33 had no COP. All were retested at discharge, which occurred between 21 and 45 days after admission. At that time, 37 records contained two or more COP, 29 had one COP, and 34 had no COP answers. All entered or reentered outpatient care, and 78 were continuing as outpatients at the time of a 9- to 12-month postdischarge follow up. Favorable progress was reported by 30 of the 37 (81%) who had two or more COP at discharge. Three had been rehospitalized within eight months of being discharged. Favorable progress was reported by 19 of the 29 patients (66%) who had given one COP in the discharge, however, 6 of the remaining 10 had been rehospitalized during the first eight months following discharge. Favorable progress was reported by only 18 of the 34 patients (53%) whose discharge protocols contained no COP, and 9 of the remaining 16 patients had been rehospitalized during the eight months following discharge.

Exner (1993a) recorded instances in which each of 50 individuals manifest positive and/or cooperative behaviors in three contrived interpersonal situations. In one, a confederate feigned distress and/or helplessness after dropping a pile of books. The second involved whether the participant elected to sit closer, or further away, from an examiner during testing, and the third focused on whether the participant assisted in rearranging chairs after testing was completed. The 50 participants, ranging in age from 18 to 65, included 36 undergraduate students from two universities, plus 14 adults from various middle and upper-middle class occupational groups. Seven tests were administered by four examiners, including the Rorschach. Sixteen gave Rorschachs that contained more than one COP response, 19 gave one COP answer, and the remaining 15 gave no COP. The maximum possible score for positive social behaviors was three. The 16 participants who had given more than one COP averaged 2.4, those who gave one COP averaged 1.7, and those with no COP averaged 0.8. Alexander (1995) studied 58 adults in

two sessions in which situational opportunities were presented to which the person could respond in a favorable "prosocial" manner. She found that the frequency of COP, scores on a self-report altruism questionnaire, and scores for the Isolation Index accounted for 30% of the variance in prosocial behaviors.

While the results of these studies suggest that the presence of cooperative movement in a Rorschach is a favorable finding related to interpersonal attitudes or behaviors, other data suggest that it is very unwise to interpret COP as an isolated variable. For instance, Shaffer and Erdberg (1996), suggest that some types of COP responses should be regarded much less favorably than others, and in fact, the presence or absence of several other variables in the Rorschach all might well alter the seemingly positive finding even if two or more COP appear in a record. Their cautions are similar to those of Ordnuuff et al. (1999), noted earlier, concerning responses in which both COP and AG appear, serve as cautions about interpreting COP values independently.

Two studies indicate that COP seems related to premature termination from treatment. The first (Exner, 1995) reviewed data for 168 outpatients in cognitive or dynamic therapy, 41 of who terminated prematurely (prior to the eighth week of treatment). The combination of more than two pure Human responses, more than one COP response, and the absence of aggressive movement responses appears in the protocols of 28 of the 41 early terminators. The second (Hilsenroth, Handler, Toman, & Padawer, 1995) is an archival study of 188 patients at a university clinic, including 97 who terminated treatment prematurely (fewer than eight sessions). The early terminators averaged more than twice as many COP responses in their Rorschachs when compared to a group of 81 patients who remained in treatment until termination was mutually agreed.

Possibly the most striking findings that caution against casually interpreting the presence of COP answers in a positive framework are those published by Gacono and Meloy (1994). They

studied the Rorschachs of 20 individuals adjudicated for sexual homicide, and found that only six contained no COP responses, nine contained one or two COP answers, and five gave protocols with more than two COP responses.

PERSONAL RESPONSES

Data concerning the frequency of PER responses often provide some added input concerning the interpersonal perceptions and behaviors of the subject. Personal responses represent a form of defensiveness. A low frequency, zero to two, are common in many records and are not interpretively meaningful. However, higher frequencies warrant some concern.

The initial interest in this special score evolved during the collection of protocols from nonpatient children. Many examiners questioned whether these verbalizations should be coded as DR, because they often seem to be irrelevant to the response. The accumulated data for nonpatients reveal that both children and adults tend to give at least one, but usually not more than two. For example, PER answers appear in about 90% of the records given by 12-year-olds, but only seven of the 120 children in that sample gave more than one. About 64% of 600 nonpatient adults gave PER responses, but only 38 gave more than one and only 14 gave more than two.

The distribution of PER scores for nonpatients fall on a neat J-curve having a limited range of zero to five, and median and modal values of one. About 44% of 535 outpatients gave at least one PER answer, but about one-third of those gave more than two and a few gave as many as eleven. A search of outpatient protocols yielded two groups in which the mean for PER exceeded three. The first consists of 65 obsessive adults ($M=3.76$, $SD=1.4$), and the second is a sample of 45 male adolescents in treatment because of problems in handling displays of anger ($M=3.69$, $SD=1.2$). Only six of the obsessive patients and seven of the adolescents had records in which no PER occurred.

The modes for both groups are 3, and the ranges in each extending to 10.

Data from the Thomas, Exner, and Baker (1982) study, in which 225 college students completed the Gough Adjective Check List twice, reveals that the 20 participants who had the greatest discrepancy between their "real and ideal" scores averaged 2.69 PER answers, whereas the 20 participants from the opposite extreme of the ACL distribution average 0.7 PER. Exner and Weiner (1982) used six assistants to record various behaviors that occurred among three fourth- and fifth-grade classes during interactive tasks assigned by teachers. Each class was observed by two raters for two one-hour periods on each of five consecutive days. Among behaviors recorded were denial responses such as, "It's not my fault, he told me to do it," or "We would have finished if she hadn't fouled up," and so on. Subsequently, the five students with the highest frequency of denial behaviors, plus five others randomly selected from the remaining students, were administered the Rorschach by one of six examiners who were not familiar with the study. The five target students averaged 3.9 PER answers as contrasted with 2.16 for the control sample.

The pretreatment protocols of the 430 outpatients who volunteered for several long-term treatment studies (Exner, 1978) identified 82 (19%) in which PER appeared at least four times ($M=5.73$, $SD=1.6$). A review of the therapist ratings of those patients, for the early sessions of treatment, reveals that more than two-thirds (57) were rated as resistive, or having questionable motivation for treatment, as compared with less than 25% of a second group of 82 patients randomly selected from the remaining 348 persons in the study ($M=1.12$, $SD=2.09$, $p < .01$).

The findings concerning the PER responses suggest that people who have substantially high frequencies have some need to be overly precise in defending their self-image. On the surface, it may appear that some PER answers are more an indication of an openness or willingness to share information about oneself. That element may

exist in some kinds of PER responses, such as the child who reports a butterfly, and then adds, "I caught one like this, it was really pretty." But at a different level, the PER provides more sturdiness to the percept, and consequently to the self. The personal commentary serves to provide reassurance, as if psychologically saying, "I know that I am right because I am drawing from direct experience," and in doing so, the individual feels able to fend off any potential challenge from the examiner. In other words, it reflects a sort of defensive authoritarianism.

This sort of defensiveness does not necessarily impair interpersonal relations, but does suggest that the person is probably less secure in situations involving challenges than might be preferred. People with substantial PER values are probably often regarded as rigid or narrow by others and, as a consequence, often have difficulties in maintaining close relations, especially with those who are not submissive to them.

ISOLATION INDEX

Another datum that will sometimes provide information concerning one's views and reactions to the social environment is the Isolation Index. Throughout Rorschach history it has seemed logical to assume that an elevation in the frequency for any content category has some interpretive significance. This is because the frequencies for most categories are very low, with the exception of the Animal and Human contents. None average more than two for most groups, except Botany which has a mean of 2.37 ($SD=1.3$) for nonpatient adults. Many authors (Beck, 1945; Klopfer & Kelley, 1942; Rapaport, Gill, & Schafer, 1946; Piotrowski, 1957; Draguns et al., 1967; Exner, 1974) have postulated that frequency elevations in a single category indicate some form of conflict or preoccupation. However, with the exception of the $An+Xy$ composite, no empirical data support this proposition. In that context, computer searches were designed to study individual content categories, plus various combinations of

categories, as they might relate to other data available concerning individuals and groups.

The first hint that the combination of Botany, Clouds, Geography, Landscape, and Nature categories might relate to social isolation or withdrawal occurred by studying the contents in the baseline protocols of the 430 outpatients who volunteered to take the Rorschach during, and following treatment. Therapist ratings, completed after some of the early treatment sessions, contained items about social behaviors, such as frequency of social contacts outside the immediate family, feelings of social alienation or isolation, and so on. The correlation between a composite of these ratings, and the combination of the five content categories is $r=.26$ for the entire group. When the combined content scores for 100 patients from each extreme of the distribution of therapist ratings were analyzed separately, the results were more striking. For the 100 patients evaluated by therapists most favorably for active and positive social relations, the correlation with the combined frequencies of the five contents, calculated in relation to R , and with the two categories Na and Cl afforded double weights is $-.51$. For the 100 patients evaluated by therapists most negatively for active and positive social relations, the correlation with the index is $.56$.

The next clue to the usefulness of the *Isolate/R* Index was revealed by a review of data for other psychiatric samples. Two groups surfaced in this process, both of which have substantial percentages of protocols in which the Isolation Index exceeds one-fourth of R , and many for whom the Index exceeds one-third of R . The first is a combined group of 505 children and adolescents who have teacher ratings, or psychologist evaluations, indicating that they are markedly withdrawn from social contact (Exner, 1978). Of those 505 records, 423 (84%) have an Index that exceeds one-fourth of R , and 271 (54%) have an Index that exceeds one-third of R . The second group consists of 146 outpatient adults diagnosed as "schizoid," or "schizotypal personality disorder." In this group, 127 (86%) contain an Index that

exceeds one-fourth of R , and 89 of those (61%) have an Index that exceeds one-third of R . These data signify that some sort of social isolation is likely if the Index is $.26$ or greater. Data from two studies have been used to test this postulate.

Farber, Exner, and Thomas (1982) used a peer nomination design with 139 high school sophomores and juniors in an effort to identify students having the most limited social contact with others in their classes. The nominations included 15 items, all of which related to interpersonal preferences or behaviors, such as most popular, best dancer, most friendly, most humorous, most helpful, best listener, most sensitive to others, most fun to be with, most responsible, most trustworthy, and so on. All of the items focused on positive rather than negative features. Eighteen students received no nominations, and they, plus 18 other students selected randomly as controls from the remaining 120, were recruited to take the Rorschach. Each volunteer received a \$10 payment. The target sample shows a mean Isolation Index of $.31$ ($SD=.08$), whereas the control group has a mean Index of $.17$ ($SD=.12$).

In the second study, a 30-item peer nomination inventory was used with 64 female college students, all of whom lived in the same dormitory at a small residential college (Exner & Farber, 1983). They had volunteered to participate in a psychological study concerning stresses of campus living in exchange for a donation toward new furnishings for one of the study rooms in the dormitory. All were administered several psychological tests and completed several questionnaires including the one concerning peer nominations. The 30 items included the 15 used in the previous study, plus 15 negative items, such as least friendly, most disruptive, most insensitive to others, most outspoken, most irritating, least responsible, most argumentative, and least interested in being with people. All participants received at least two nominations, and 14 were nominated at least once as being least interested in being with people. However, 9 of the 14 received at least 20 such nominations, as compared with fewer than six for the remaining five persons.

Those nine individuals averaged .32 for the *Isolate/R*, and all had indices exceeding .25. For comparison, five randomly selected groups, of nine participants each, were drawn from the remaining 55 students. In one group, three persons had *Isolate/R* values greater than .25, but less than .30. In the other four groups only two other persons, one in each group, had indices greater than .25.

About 20% of 600 nonpatient adults have an *Isolate/R* that is greater than .25, but only 7% have values exceeding .32. In contrast, about 15% of 535 outpatients have *Isolate/R* values greater than .25, but about two-thirds of those are greater than .32. Among first 193 admission affective disorders, nearly 30% have *Isolate/R* values greater than .25, and about half of those are greater than .32. Khouri and Greenway (1996) studied 53 persons who were self-referral to a counseling agency. They found a substantial relation between high scores on the *Isolate/R* and the MMPI-2 Harris-Lingoes Depression content scale. Alexander (1995) noted a negative relation between *Isolate/R* values and the frequency of prosocial behaviors.

A value of between .25 and .32 usually identifies the person who is less involved in social interaction. It does not necessarily reflect social maladjustment or conflict. In most instances, it represents less interest in, or possibly more timidity about social intercourse. When the Isolation Index is .33 or greater, it is very likely that the person is socially isolated. The majority of individuals for whom this finding is positive have less than two COP responses, and most will also have a low *Afr*.

REFERENCES

- Alexander, S. E. (1995). The relationship of projective test indices to prosocial behaviors, altruism, and loneliness. *Dissertation Abstracts International*, 56, 0513.
- Ames, L. B., Metraux, R. W., & Walker, R. N. (1971). *Adolescent Rorschach responses*. New York: Brunner/Mazel.
- Baity, M. R., & Hilsenroth, M. J. (1999). Rorschach aggression variables: A study of reliability and validity. *Journal of Personality Assessment*, 72, 93-110.
- Beck, S. J. (1945). *Rorschach's test. II: A variety of personality pictures*. New York: Grune & Stratton.
- Bornstein, R. F. (1992). The dependent personality: Developmental, social, and clinical perspectives. *Psychological Bulletin*, 112, 3-23.
- Bornstein, R. F., Bowers, K. S., & Robinson, K. J. (1997). Differential relationships of objective and projective dependency scores to self-report of interpersonal life events in college student subjects. *Journal of Personality Assessment*, 65, 255-269.
- Bornstein, R. F., & Greenberg, R. P. (1991). Dependency and eating disorders in psychiatric inpatients. *Journal of Nervous and Mental Diseases*, 179, 148-152.
- Bornstein, R. F., & Masling, J. M. (1985). Orality and latency of volunteering to participate as experimental subjects. *Journal of Personality Assessment*, 49, 306-310.
- Burns, B., & Viglione, D. J. (1996). The Rorschach Human Experience Variable, interpersonal relatedness and object representation in nonpatients. *Psychological Assessment*, 8, 92-99.
- Cadenhead, K. S., Perry, W., & Braff, D. L. (1996). The relationship of information processing deficits and clinical symptoms in schizotypal personality disorder. *Biological Psychiatry*, 40, 853-858.
- Draguns, I. G., Haley, E. M., & Phillips, L. (1967). Studies of Rorschach content: A review of the research literature. Part 1: Traditional content categories. *Journal of Projective Techniques and Personality Assessment*, 31, 3-32.
- Exner, J. E. (1974). *The Rorschach: A Comprehensive System. Volume 1*. New York: Wiley.
- Exner, J. E. (1978). *The Rorschach: A Comprehensive System. Volume 2. Current research and advanced interpretation*. New York: Wiley.
- Exner, J. E. (1988). *COP. Alumni newsletter*. Asheville, NC: Rorschach Workshops.
- Exner, J. E. (1991). *The Rorschach: A Comprehensive System. Volume 2: Interpretation* (2nd ed.). New York: Wiley.
- Exner, J. E. (1993a). *COP responses and helping behavior*. Rorschach Workshops (Study No. 303, unpublished).
- Exner, J. E. (1993b). *The Rorschach: A Comprehensive System. Volume 1: Basic foundations* (3rd ed.). New York: Wiley.

- Exner, J. E. (1995). Recent research. *Alumni newsletter*. Asheville, NC: Rorschach Workshops.
- Exner, J. E. (2000). *A primer for Rorschach interpretation*. Asheville, NC: Rorschach Workshops.
- Exner, J. E. (2001). *A Rorschach workbook for the Comprehensive System* (5th ed.). Asheville, NC: Rorschach Workshops.
- Exner, J. E., Bryant, E. L., & Miller, A. S. (1975). *Rorschach responses of some juvenile offenders*. Rorschach Workshops (Study No. 214, unpublished).
- Exner, J. E., & Farber, J. G. (1983). *Peer nominations among female college students living in a dormitory setting*. Rorschach Workshops (Study No. 290, unpublished).
- Exner, J. E., & Kazaoka, K. (1978). *Dependency gestures of 16 assertiveness trainees as related to Rorschach movement responses*. Rorschach Workshops (Study No. 261, unpublished).
- Exner, J. E., Kazaoka, K., & Morris, H. M. (1979). *Verbal and nonverbal aggression among sixth grade students during free periods as related to a Rorschach special score for aggression*. Rorschach Workshops (Study No. 255, unpublished).
- Exner, J. E., & Weiner, I. B. (1982). *The Rorschach: A Comprehensive System. Volume 3. Assessment of children and adolescents*. New York: Wiley.
- Farber, J. L., Exner, J. E., & Thomas, E. A. (1982). *Peer nominations among 139 high school students related to the Isolation Index*. Rorschach Workshops (Study No. 288, unpublished).
- Gacono, C. B., & Meloy, J. R. (1994). *The Rorschach assessment of aggressive and psychopathic personalities*. Hillsdale, NJ: Erlbaum.
- Goldman, R. (1960). Changes in Rorschach performance and clinical improvement in schizophrenia. *Journal of Consulting Psychology*, 24, 403-407.
- Goldstein, D. B. (1998). Rorschach correlates of aggression in an adolescent sample. *Dissertation Abstracts International*, 58, 5118.
- Halpern, F. (1940). Rorschach interpretation of the personality structure of schizophrenics who benefit from insulin therapy. *Psychiatric Quarterly*, 14, 826-833.
- Hilsenroth, M. J., Handler, L., Toman, K. M., & Padawer, J. R. (1995). Rorschach and MMPI-2 indices of early psychotherapy termination. *Journal of Consulting and Clinical Psychology*, 63, 956-965.
- Holaday, M., & Whittenberg, T. (1994). Rorschach responding in children and adolescents who have been severely burned. *Journal of Personality Assessment*, 62, 269-279.
- Kazaoka, K., Sloane, K., & Exner, J. E. (1978). *Verbal and nonverbal aggressive behaviors among 70 inpatients during occupational and recreational therapy*. Rorschach Workshops (Study No. 254, unpublished).
- Khoury, S., & Greenway, A. P. (1996). Exner's depression index and the Harris-Lingoes MMPI-2 subscales for depression. *Perceptual and Motor Skills*, 82, 27-30.
- Klopfer, B., & Kelley, D. (1942). *The Rorschach technique*. Yonkers-on-Hudson, NY: World Books.
- Masling, J. M. (1986). Orality, pathology, and interpersonal behavior. In J. Masling (Ed.), *Empirical studies of psychoanalytic theories* (Vol. 2). Hillsdale, NJ: Erlbaum.
- Masling, J. M., O'Neill, R. M., & Katkin, E. S. (1982). Autonomic arousal, interpersonal climate and orality. *Journal of Personality and Social Psychology*, 42, 529-534.
- Masling, J. M., Rabie, L., & Blondheim, S. H. (1967). Obesity, level of aspiration, and Rorschach and TAT measures of oral dependence. *Journal of Consulting Psychology*, 31, 233-239.
- Meloy, J. R., & Gacono, C. B. (1992). The aggression response and the Rorschach. *Journal of Clinical Psychology*, 48, 104-114.
- Molish, H. B. (1967). Critique and problems of the Rorschach. A survey. In S. J. Beck & H. B. Molish (Eds.), *Rorschach's test. II: A variety of personality pictures* (2nd ed.). New York: Grune & Stratton.
- Morris, W. W. (1943). Prognostic possibilities of the Rorschach method in metrazol therapy. *American Journal of Psychiatry*, 100, 222-230.
- Ornduff, S. R., Centeno, L., & Kelsey, R. M. (1999). Rorschach assessment of malevolence in sexually abused girls. *Journal of Personality Assessment*, 73, 100-109.
- Perry, W., & Braff, D. L. (1994). Information processing deficits and thought disorder in schizophrenia. *American Journal of Psychiatry*, 151, 363-367.
- Perry, W., & Viglione, D. J. (1991). The Rorschach Ego Impairment Index as a predictor of outcome in melancholic depressed patients treated with tricyclic antidepressants. *Journal of Personality Assessment*, 56, 487-501.
- Perry, W., Viglione, D. J., & Braff, D. (1992). The Ego Impairment Index and schizophrenia: A validation study. *Journal of Personality Assessment*, 59, 165-175.

- Piotrowski, Z. (1957). *Perceptanalysis*. New York: Macmillan.
- Piotrowski, Z., & Bricklin, B. (1961). A second validation of a long-term Rorschach prognostic index for schizophrenic patients. *Journal of Consulting Psychology*, 25, 123-128.
- Pires, A. A. (2000). National norms for the Rorschach normative study in Portugal. In R. H. Dana (Ed.), *Handbook of cross-cultural and multicultural personality assessment: Personality and clinical psychology series*. Mahwah, NJ: Erlbaum.
- Rapaport, D., Gill, M., & Schafer, R. (1946). *Psychological diagnostic testing* (Vol. 2). Chicago: Yearbook Publishers.
- Ray, A. B. (1963). Juvenile delinquency by Rorschach inkblots. *Psychologia*, 6, 190-192.
- Richardson, H. (1963). Rorschachs of adolescent approved school girls, compared with Ames normal adolescents. *Rorschach Newsletter*, 8, 3-8.
- Schafer, R. (1954). *Psychoanalytic interpretation in Rorschach testing*. New York: Grune & Stratton.
- Shaffer, T. W., & Erdberg, P. (1996). *Cooperative movement in the Rorschach responses: A qualitative approach*. 15th International Congress of Rorschach and Projective Methods, Boston.
- Sherman, M. H. (1952). A comparison of formal and content factors in the diagnostic testing of schizophrenia. *Genetic Psychology Monographs*, 46, 183-234.
- Stotsky, B. A. (1952). A comparison of remitting and nonremitting schizophrenics on psychological tests. *Journal of Abnormal and Social Psychology*, 47, 489-496.
- Thomas, E. A., Exner, J. E., & Baker, W. (1982). *Ratings of real versus ideal self among 225 college students*. Rorschach Workshops (Study No. 287, unpublished).
- Viglione, D. J., Perry, W., Jansak, D., Meyer, G., & Exner, J. E. (in press). Modifying the Rorschach Human Experience Variable to Create the Human Representational Variable. *Journal of Personality Assessment*.
- Vinson, D. B. (1960). Responses to the Rorschach test that identify thinking, feelings, and behavior. *Journal of Clinical and Experimental Psychopathology*, 21, 34-40.
- Walters, R. H. (1953). A preliminary analysis of the Rorschach records of fifty prison inmates. *Journal of Projective Techniques*, 17, 436-446.
- White, D. O. (1999). A concurrent validity study of the Rorschach extended aggression scoring categories. *Dissertation Abstracts International*, 59, 5152.
- Young, M. H., Justice, J., & Erdberg, P. (1999). Risk factors for violent behavior among incarcerated male psychiatric patients: A multimethod approach. *Assessment*, 6, 243-258.

CHAPTER 22

The Complete Description

The preceding chapters concerning interpretation have focused on pieces of the Rorschach. Each of the clusters provides information concerning features of the individual, but none portrays the whole person. In Rorschach language, they might be thought of as representing the *D*'s of the test. The challenge for the interpreter is to organize the findings from the clusters into a *W+*, a complete description that strives to characterize the person as a unique individual.

It is not difficult to achieve a complete description. Although each interpreter has his or her own writing style, the integration of findings from the various clusters should always be conceptually logical. Sometimes, it may be convenient to integrate findings by following the sequence in which the clusters were reviewed. It is the sequence that was identified by using the Key variables listed in Table 13.4 (Chapter 13). Typically, that sequence will have focused on some of the most important findings early in the interpretation, and they often represent a good starting point. However, early findings may not be very revealing, and a meaningful description may not begin to unfold until well into the record. Regardless, it must include an appropriate balance between positive and negative findings.

Some interpreters may be tempted to casually set forth the cluster summaries, one after another, in a manner that might appear to be a "complete" report. This is not a good practice and does not

represent an *integrated* description. Cluster summaries tend to be discrete. They have a narrow focus, even when the findings for more than one cluster are included, as in a summary for the cognitive triad. Cluster summaries also often contain redundant information because several variables, such as *Lambda*, the *EB*, *SumV*, the *HVI*, are relevant to the interpretation of data in more than one cluster. In effect, a simple listing of cluster summaries falls far short of presenting a whole picture of a real person.

The integration of findings to produce a unique description that highlights the psychological organization and functioning of the person also addresses the referral questions that have been raised. This requires the interpreter to consider the findings concerning each feature in the context of findings regarding all other features. It is at this stage that the prerequisites for interpretation mentioned in Chapter 13, a knowledge of people, personality, psychopathology, and maladjustment, become critically important.

The prerequisite knowledge affords an appreciation for internal struggles and their relation to external behaviors. It also provides the basis for understanding how a characteristic may be an asset in one setting, and a liability in another. It permits the interpreter to comprehend the relationships between features, detecting those which are dominant and those which are less so, and describe this mixture in a way that captures the individuality of the person.

Before proceeding to illustrate the procedure of integrating and organizing findings into a whole description, there are two variables, not presented earlier, that require discussion.

THE SUICIDE CONSTELLATION (S-CON)

The S-CON consists of an array of 12 seemingly heterogeneous variables, each of which is reviewed against a criterion to determine if the finding is positive or negative. The S-CON was developed during the mid-1970s using the protocols of 59 persons who effected their own death within 60 days after having taken the Rorschach (Exner & Wylie, 1977). Over several years, additional protocols that had been administered within 60 days prior to an effected suicide accumulated in the data pool of the Rorschach Research Foundation. By the mid-1980s, the new sample included 101 records. The several analyzes performed on the original sample were repeated for the new sample. In each instance, they were selected to determine if any of the variables of the test, or a combination of variables, might correctly differentiate those who effected their own death from subjects in various patient and nonpatient comparison samples.

The original analyzes, for the group of 59 records, yielded a composite of 11 variables. When a criterion requiring that at least eight of the 11 variables must be positive was applied, about 75% of the protocols in the suicide sample were correctly identified, as contrasted with between 10% and 20% of comparison patient protocols, and none of the nonpatient group records used for comparison. The analyzes for the cross validation sample produced very similar results, but did cause one additional variable, MOR, to be added to the composite (Exner, Martin, & Mason, 1984).

The findings concerning the 12 variable S-CON reveal that about 80% of the protocols in the cross validation suicide sample are correctly identified if the criterion of eight or more positive variables is applied. Conversely, eight or more positive variables appear in between 6% and 12%

of patient comparison groups, and none of the nonpatient protocols used for comparison. When the cutoff criterion is lowered to seven positive variables, the proportion of correctly identified suicide records improves to about 90%, but the proportion of false positives in the various comparison groups increases to more than 30%, including 6% of the nonpatient records.

Fowler et al. (2001) studied the protocols of 104 inpatients who had been administered the Rorschach within 30 days of admission. They subdivided the protocols into three groups, nonsuicidal ($N = 37$), parasuicidal ($N = 37$), and near-lethal ($N = 30$). They found that an S-CON score of seven or more was the sole predictor, among nine psychiatric and demographic variables, of near-lethal suicide attempts.

Interpreting the S-CON

The S-CON should *always* be the first variable reviewed by the interpreter. When the S-CON value is eight or greater, it should be regarded as a "red flag," signifying that the person has many of the features common among individuals who have effected their own death within a relatively short period of time after having taken the Rorschach. It should be taken as a warning that further exploration of the possibility of a preoccupation with self-destruction should be pursued expeditiously. Typically, the issue can be explored by a thorough interview with the person and, in some instances, a well taken history also provides a basis from which the issue can be addressed.

The S-CON was developed using the protocols of adults. The possibility of creating an S-CON for younger clients has been researched, using a small sample of records taken from children who subsequently committed suicide. The results of that study were mixed, and an experimental S-CON for children yielded a seemingly large number of false positive cases. Nonetheless, the analyzes completed for that study did suggest that the adult S-CON probably can be useful for older adolescents, between the ages of 15 and 17, using the same interpretive criteria that are used for adults.

S-CON values of less than eight *should not* be interpreted to mean that no self-destructive preoccupation exists. The suicide samples contained between 20% and 25% of false negative records. In a similar context, some interpreters are inclined to worry over protocols that have S-CON values of seven. That worry seems logically justified, especially in light of the Fowler et al. (2001) findings. Certainly, it should prompt a careful review of the response codings. Even if they are correct, the question of whether the possibility of a death preoccupation should be explored more fully is worth considering in light of *all* of the available data concerning the individual.

THE PERCEPTUAL-THINKING INDEX (PTI)

The PTI is a revision of what has been called the Schizophrenia Index (SCZI). The original SCZI was formulated during the late 1970s and early 1980s using variables related to perception or thinking (Exner, 1983, 1986). It comprised five criterion tests. It was revised in the late 1980s to include six criterion tests (Exner, 1989). The interpretation of the SCZI has always involved a cutoff criterion, established through analyses similar to those used to identify the appropriate cutoff score for the S-CON. Those analyses revealed that SCZI values of four or greater indicate a significant probability of a schizophrenia-like problem.

When applying the cutoff value of four, the SCZI routinely identifies between 65% and 80% of persons diagnosed as schizophrenic, depending on the group studied. However, between 10% and 20% of persons with other relatively serious problems also often have values on the SCZI of four or greater. This is most frequent among inpatients with major affective disturbances, but "false positive" values have been noted for those with other forms of psychotic-like conditions.

Actually, positive findings among nonschizophrenics are not necessarily false when considered

in the context of the variables included in the index. They relate to problems in mediation and ideation, and people in considerable disarray frequently become quite impaired in those functions. However, the label "Schizophrenia Index" often has challenged interpreters to explain positive findings while rejecting the notion that the person might be schizophrenic. A substantial false positive rate has also been noted among younger persons, especially preadolescents and adolescents, whose behaviors are marked by considerable volatility. Usually, those individuals harbor considerable negativism or anger, and this has a significant impact on their test-taking behavior. It often leads to the selection of Rorschach responses that tend to ignore or distort some of the more salient distal features of the blots. They also are not really false positives in the context of the variables used in the index, but usually they are not schizophrenic.

Challenges to interpreters using the SCZI have also been made more complex as the clinical and behavioral criteria used for the diagnosis of schizophrenia have gradually changed. In some respects, those criteria have become more narrow, but in other respects, the criteria have broadened considerably. The concept of a schizophrenia spectrum has gained new respect, and other labels from that spectrum are often applied to persons who once might have been diagnosed as schizophrenic.

This variety of factors prompted a series of new studies concerning the SCZI with the objective of improving its validity for identifying persons who have serious problems in mediation and thinking. The result is encouraging, created in part by the identification of two new variables that are useful in detecting perceptual or mediational problems. They are the *XA%* and *WDA%*, described in Chapter 18. These studies have also led to the decision to change the nomenclature to Perceptual-Thinking Index, which more accurately reflects the features to which the variables in it are related (Exner, 2000). The variables and criteria that constitute the PTI are shown in Table 22.1.

Table 22.1 Variables and Criteria That Comprise the PTI.

-
1. $XA\% < .70$ and $WDA\% < .75$
 2. $X-\% > .29$
 3. $LVL2 > 2$ and $FAB2 > 0$.
 4. $R < 17$ and $WSUM > 12$ OR $R > 16$ and $WSUM6 > 17^*$
 5. $M- > 1$ OR $X-\% > .40$.
-

* = Adjustments for ages 13 and younger:

If $R > 16$: ages 5 to 7 = 20; ages 8 to 10 = 19; ages 11 to 13 = 18

If $R < 17$: ages 5 to 7 = 16; ages 8 to 10 = 15; ages 11 to 13 = 14

The development of the PTI included a review of two groups of "false positive" cases. The first consists of 150 protocols in which the SCZI has a value of four or more, but none of these individuals is schizophrenic or presents psychotic-like features. They were considered to be "valid" false positives. The second group is comprised of 50 records that have SCZI values of five or six, collected from persons who are not schizophrenic, but do manifest psychotic-like features. They were considered to be "true" positives. Of the 150 false positive cases, 127 have values of less than four on the PTI, and nearly two-thirds have values of less than three. Thirty one of the 50 true positive cases have PTI values of four or five and 11 others have PTI values of three.

Although the PTI is more conservative than the SCZI in identifying mediation or thinking problems, the distributions of PTI scores for schizophrenics does not appear markedly different than the distribution of SCZI scores. For instance, one group of 110 persons, having a *DSM*-based diagnosis of schizophrenia, includes 84 with SCZI values of four or greater. Sixty-two of those 84 have SCZI values of five or six. The distribution of PTI scores for the 110 persons reveals that 61 have values of four or five and 22 have values of three.

Smith et al. (2002) studied the efficacy of the PTI with a sample of inpatient children and adolescents. They calculated thought disorder indices

from a behavior rating scale and a self-report measure. They found that the PTI, used categorically, was able to differentiate patients with and without elevated thought disorder scores on the other measures.

Interpreting the PTI

This index *should not* be used as a primary source for specific diagnostic decisions. There is no critical cutoff value. Rather, it should be viewed as a continuous scale on which higher values are less preferable than lower values. Its main purpose is to alert interpreters about the likelihood of mediational and ideational difficulties. Logically, PTI scores of four or five signify considerably more mediational/ideational trouble than scores of zero, one, or two, but that is a concrete differentiation. The true extent of any mediational or ideational problems unfolds only as the clusters of data pertaining to these features are thoroughly reviewed.

The PTI replaces the SCZI as the *first* item in the listing of Key variables used to determine the most appropriate order for addressing the various data clusters (see Chapter 13, Table 13.4). It remains as the first item in the listing because high PTI values signal the importance of reviewing the data concerning cognition prior to interpreting other data of the test.

BUILDING A COMPLETE DESCRIPTION

Once interpreters become confident about the principles of interpretation, they usually prefer to work directly with the data in the Structural Summary and Sequence of Scores as they proceed through each data cluster. Those who are learning the principles of interpretation, or those who do not use the Rorschach with regularity, may find greater security in working from cluster data charts, such as those used in each of the chapters on cluster interpretation. This approach will be used with the four cases in this chapter.

Case 14

This 42-year-old male was referred to a psychiatrist by the attorney who is representing him in a divorce proceeding. The subject concedes that, for the past three or four months, he has experienced stress, has difficulty sleeping, and feels that his work performance as the manager of a large discount store has deteriorated. He identifies the source of the problem as being the fact that his wife left him about six months ago, shortly after the younger of their two children, a daughter, went away to college. He attributes the breakup of his marriage to the lengthy hours that he has been working for several years to achieve his current occupational status. He says that, on leaving, his wife told him she had been having a relationship with another man for more than a year, and said that she deferred the decision only until after their daughter graduated from high school and was in college. He says that he had no idea that she had been unfaithful, but does admit that his marriage was probably somewhat "hum-drum and routine" for the last few years.

He states that he has always taken pride in his family and believes that the 21 years of his marriage were generally happy. He says that he has never been unfaithful, but notes, "I've probably had a lot of opportunities." He reports that he and his wife had many friendships and frequently attended various social functions. He admits that sexual frequency in the marriage declined during the past five to seven years, but does not believe that this contributed much to the breakup. He expresses the belief that his wife, who did not work outside of the home, apparently perceives that her job was done when the second child entered

college, and now wants to create a new life for herself. He has heard that she intends to obtain a teaching certificate and begin working full time.

The husband and wife are the same age, and married during their sophomore year at a state university. He majored in Business Administration and his wife majored in Secondary Education. She became pregnant during their senior year, and was unable to complete the requirements for her practice teaching, although she did receive a degree. Their oldest son, age 20, is a third-year engineering student at a state university. Their daughter, age 18, is a freshman at a liberal arts college. He states that both children have been shocked by their mother's action, but seem to have accepted the fact that their parents will divorce. The wife is not asking for any continuing support, but does ask for a property settlement.

He states that during the first two months after his wife's departure he felt "sort of paralysed and depressed." He says that, after the second month, he thought he was able to contend with the depression, but admits that he still feels some of the after effects, and is concerned about how it is affecting his job performance. He states that he has many friends who are supportive, but he is not able to feel comfortable with them because they are apparently torn in their allegiance between him and his wife. He describes himself as a quiet person who enjoys being with people, but implies that he is probably the type of person who does not often display his feelings as openly as do most of his friends.

He states that he doesn't really understand what he did, or did not do, that led to his wife's decision, and he is concerned that he had no notion this would happen. He says that, when he awakens he feels fatigued, and then becomes tense and anxious. Recently, he has begun writing notes to himself so that he will not forget important tasks for the day.

The referring psychiatrist asks: (1) is there any evidence of severe depression; (2) would antidepressant medication be appropriate; (3) for a complete personality description; (4) is this case appropriate for short-term supportive treatment or should some type of longer form of intervention be planned, and, if so, what would be long-term intervention objectives; and (5) is there any evidence suggesting that he is a risk to himself.

Case 14. A 42-Year-Old Male.

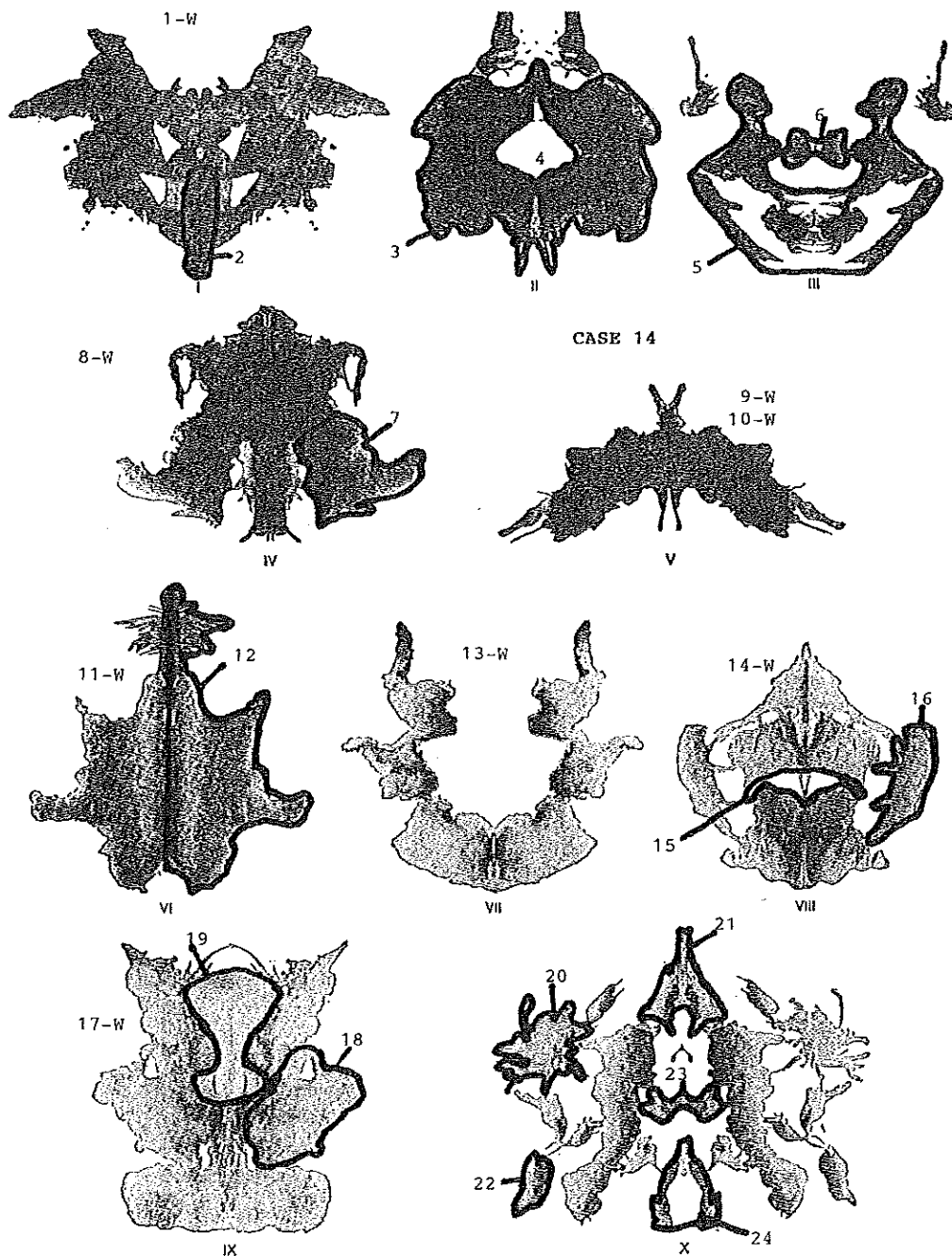
Card	Response	Inquiry
I	<p>1. Well, let's see, these cb wgs & its all black so I suppose I cld say a bat</p> <p>S: Is one enough? E: People usually give more than one S: Do u hav to use all of it? E: Its up to u</p> <p>2. In here it ll the form of legs, the lower part of the body</p> <p>3. If u don't include the top it cb a drainpipe w rust colored water coming out</p>	<p>E: (Rpts S's resp) S: Yes, these cb wgs & the cntr wid b the body & up here little ft legs, a bat</p> <p>E: (Rpts S's resp) S: Just this area (outlines D3), it ll the lower part of the body, fr the waist dwn</p> <p>E: (Rpts S's resp) S: This triangular white is the pipe & ths darker prt arnd it cb the ground tht is around it & ths reddish cb water flowing out the front E: I'm not sur what makes it ll its coming out S: It ll its pouring out, u can c some of the grd in frt of the pipe beneath the water, c its a darker red here (upper D3) E: U said it is rust colored? S: Well its red, I was thinkg of muddy water it cld just b polluted E: And u say the othr part ll ground? S: It cb anythg, whatever the pipe is in</p> <p>E: (Rpts S's resp) S: The white is the lake, as u mite look at it from a distance and way off at the othr end is this tower (D4) E: U say as u mite look from a distance? S: Its pretty small there, lik if u were lookg across the lake fr ths end, the tower looks far off</p> <p>E: (Rpts S's resp) S: Mayb natives, thyr black, lik thyr both beating on this drum.lik at a tribal dance, their shape makes it ll thyr leaning ovr ths thg, lik a drum</p> <p>E: (Rpts S's resp) S: I think it does, it has the wgs & its red lik a pretty bf mite b</p> <p>E: (Rpts S's resp) S: One on each side (outlines), the toe & heel & the upper part wld go to about here E: U said its an old pair? S: Thy look pretty beat up to me, bent & twisted</p>
II		
III	<p>4. If I look at it a littl different ths cb a tower or castle off at the end of a lake</p> <p>5. Two people playing the drums togethr</p>	
IV	<p>6. That cntr prt re me of a butterfly</p> <p>7. I suppose these cb an old pair of boots, can I turn these? (E: Whatever u lik)</p>	

(continued)

Case 14. Continued.

Card Response	Inquiry
v8. This way it ll a horse look thru some bushes	E: (Rpts S's resp) S: U j c the head here (D1), lik he's behind these bushes, sort of peeking thru them E: I'm not sur why it looks behind them S: I don't kno, it just does, mayb the shading maks it look behind, shading around here (outlines at base of horse head), c these r his ears and his mane
V 9. Tht ll sk of theatrical act, 3 people in costume, its lik 2 of them r leaning back against the one in the middle, its lik he is twirling them around & thy each hav an arm up behind his head	E: (Rpts S's resp) S: The middl one has a hold of the other 2, lik he is swinging them around him. Thy r stiffed out & each one has an arm raised behind his head, their dresses are billowing out, I've seen smthg lik this in ice shows E: I'm not sur I'm seeing it lik u, can u help me a littl? S: Well, the fellow is in the middl, u c mostly his head & legs (points), most of it is the othr 2, their legs (D10) & big skirts or costumes, thy hav a furry appearance & then up here (Dd34) thy hav their arms up behind his head, thy r liter than his head lik thyr behind it E: U said their skirts or costumes lk furry? S: Yes, the shading there gives a furry impression, fur or som material lik fur
v10. This way I suppose it cb an eagle	E: (Rpts S's resp) S: The wgs r outstrched lik it was in flight, lik gliding on the air currents, the head & legs
VI 11. Tht ll some poor A tht was run ovr	E: (Rpts S's resp) S: Smthg of the cat family, really flattened out, c the head, long neck, legs E: U said smthg of the cat family S: Yes, the fur is spotted, c thes darker spots here (points to several) it ll a very furry carcus, the lites & darks give that impresson, thts why I thot of the cat family
<12. If I just use half it ll an aircraft carrier in battle	E: (Rpts S's resp) S: This is the ship (D4), the flite deck & the superstructure & this is the waterline & out in front is like a splash of water (Dd22) lik a bomb just went off
VII 13. This re me of 2 childrn on a see-saw I thk thts all for this one	E: (Rpts S's resp) S: 2 littl girls I'd say, their pony tails r bouncing in the air as thy go up & down, c their faces & I suppose ths cb an arm & dwn here is the see-saw tht thyr on
VIII 14. Mayb an unusual plant that has a grey flower at the top	E: (Rpts S's resp) S: The btom mite b a containr, it has a thin stalk & pink and bluish foliage & a very unusual pointed grey flower at the top. I've never seen anythg lik it, its probably smthg rare and not often seen
15. There's a white area in there that is shaped very much lik a bird	E: (Rpts S's resp) S: Right here (Dd532), its shaped lik a gull c a rather large body and the wgs go out here
16. I suppose the pink ll animals too	E: (Rpts S's resp) S: Some dog-lik kind, the head, body & legs, one on each side

- IX 17. That cb another plant w brite orange
flowers, very pretty
E: (Rpts S's resp)
S: The pink cb the container, it has bright orange flowers and the green leaves, u can c th stalk in the center, its very colorful
- <18. This way I get an impression of a youngster
riding a bike
E: (Rpts S's resp)
S: Here in the green (D1), c the head, he's bent ovr lik pedaling & here r the handle-bars
- v19. This white part re me of a flask
E: (Rpts S's resp)
S: Well flasks hav ths appearnce, the old ones hav ths hourglass lik shape to them.
- X 20. The blue ll drops of water, splashing
E: (Rts S's resp)
S: I suppose the blueness re me of it & thyr shaped lik thyr splashing out, just hittg
21. Two gnomes carrying a stick or pole
E: (Rpts S's resp)
S: Thy don't look much lik people but not lik A's eithr, gnomes r kind of distorted lookg lik ths, littl legs, strange lookg heads, carrying this pole
- <22. I suppose ths cb a brown dog layg dwn
E: (Rpts S's resp)
S: Rite here (D13), it just ll a dog layg dwn, the head & body & leg outstretched
- v23. In the cntr here it ll a cpl of men holding
smthg between them
E: (Rpts S's resp)
S: Right here (D6), there's one on each side & thyr holding or lifting smthg in the middl, mayb lik one is passg smthg on to the othr
- v24. Up here it ll a person parachuting dwn
E: (Rpts S's resp)
S: U don't really c the top of the chute, just the big lines going up to it & the fellow is hanging by those lines, lik in a parachute
-



Case 14. Sequence of Scores.

Card	No.	Loc.	No.	Determinant(s)	(2)	Content(s)	Pop	Z	Special Scores
I	1	Wo	1	FC'o		A	P	1.0	PHR
	2	Do	3	Fo		Hd			
II	3	DS+	6	FV.CF.mpu		Sc,Na		4.5	
	4	DS+	5	FDo		Na,Ay		4.5	
III	5	D+	1	Ma.FC'o	2	H,Sc	P	3.0	COP,GHR
	6	Do	3	FCo		A			
IV	7	D+	6	Fo	2	Cg		3.5	MOR
	8	W+	1	FMp.FVo		Ad,Bt		4.0	
V	9	W+	1	Ma - p.FV.mp.FT+	2	H,Cg		2.5	PER,COP,GHR
	10	Wo	1	FMpo		A		1.0	
VI	11	Wo	1	FY.FTo		A	P	2.5	MOR
	12	D+	4	mao		Sc,Ex,Na		2.5	AG
VII	13	W+	1	Ma.mpo	2	H,Sc	P	2.5	COP,GHR
VIII	14	W+	1	FC'.FCo		Bt,Hh		4.5	
	15	DdSo	32	Fo		A			
	16	Do	1	Fo	2	A	P		
IX	17	W+	1	CFo		Bt,Hh		5.5	GHR
	18	D+	1	Mao		H,Sc		2.5	
	19	DSo	8	Fu		Hh			
X	20	Dv	1	CF.mpo	2	Na			COP,GHR
	21	D+	11	Mau	2	(H),Id		4.0	
	22	Do	13	FC.FMpo		A			
	23	D+	6	Mau	2	H,Id		4.0	
	24	D+	10	Mpo		H,Sc		4.0	

Case 14. Structural Summary.

Location Features	Determinants		Contents	S-Constellation
	Blends	Single		
				Yes . . . FV + VF + V + FD > 2
			H = 6	Yes . . . Col - Shd Bl > 0
Zf = 17	FV.CF.m	M = 4	(H) = 1	No . . . Ego < .31, > .44
ZSum = 56.0	M.FC'	FM = 1	Hd = 1	No . . . MOR > 3
ZEst = 56.0	FM.FV	m = 1	(Hd) = 0	No . . . Zd > + - 3.5
	M.FV.m.FT	FC = 1	Hx = 0	Yes . . . es > EA
W = 8	FY.FT	CF = 1	A = 7	No . . . CF + C > FC
D = 15	M.m	C = 0	(A) = 0	No . . . X + % < .70
W + D = 23	FC'.FC	Cn = 0	Ad = 1	Yes . . . S > 3
Dd = 1	CF.m	FC' = 1	(Ad) = 0	No . . . P < 3 or > 8
S = 4	FC.FM	C'F = 0	An = 0	No . . . Pure H < 2
		C' = 0	Art = 0	No . . . R < 17
		FT = 0	Ay = 1	4 . . . Total
		TF = 0	Bl = 0	
		T = 0	Bt = 3	
		FV = 0	Cg = 2	
		VF = 0	Cl = 0	
		V = 0	Ex = 1	
		FY = 0	Fd = 0	
		YF = 0	Fi = 0	
		Y = 0	Ge = 0	
		Fr = 0	Hh = 3	
		rF = 0	Ls = 0	
		FD = 1	Na = 4	
		F = 5	Sc = 6	
			Sx = 0	
			Xy = 0	
			Id = 2	

Before attempting any comprehensive description, it is necessary to create the pieces of information, the cluster summaries, from which it will evolve. This begins with a review of the S-CON, and then proceeds by reviewing the clusters in the order identified by the first positive Key variable. In this case, it is the fourth listed; the D score is less than the Adjusted Score. Thus, the interpretation should begin with a review of the data regarding controls and situational stress, but the complete search order is not provided. That is determined by the next positive Key variable, which is that the *EB* is introversive. Thus, the remaining clusters will be addressed in the order of ideation, processing, mediation, affect, self-perception, and interpersonal perception.

S-CON

The S-CON has a value of four. One question asked in the referral concerns risk to himself. Although the S-CON value is unremarkable, and there is no evidence in the available history to suggest a preoccupation, any hypothesis concerning this issue should be delayed until the entire record is reviewed.

Controls

Ordinarily, his capacity for control and stress tolerance are adequate (Step 1, Finding 1). In fact, there is a possibility that his capacity for control may have been even sturdier than currently indicated (Step 2, Finding 5). This is suggested because of some unusual psychological features that are currently present (Step 4, Finding 2). He is more prone than most people to hold in feelings that he would prefer to release (Step 5, Finding 4) and is involved in a great deal of self-examination that focuses on features that he regards negatively (Step 5, Finding 5). These tactics can easily breed feelings of discomfort, anxiety, sadness, and/or tension. In addition, he is experiencing the impact of emotional loss and the sense of deprivation that accompanies it (Step 5, Finding 6).

Situational Stress

Currently, he is experiencing much more internal stimulation than is customary for him. This is being caused by some sort of situationally related stress, probably related to the difficulties he is experiencing in recovering from the sudden and

Case 14. Control-Related Variables for a 42-Year-Old Male.

EB = 7:4.5	EA = 11.5	D = -2	CDI = 2
eb = 8:9	es = 17	Adj es = 13	AdjD = 0
FM = 3	m = 5	SumC' = 3	SumT = 2
		SumV = 3	SumY = 1

Case 14. Situational Stress Data for a 42-Year-Old Male.

BB = 7:4.5	EA = 11.5	D = -2	Blends
eb = 8:9	es = 17	Adj es = 13	AdjD = 0
FM = 3	m = 5	C' = 3	T = 2
		V = 3	Y = 1
		(3r+(2) / R) = .33)	
Pure C = 0	M- = 0	MQnone = 0	Blends = 9
			M.FV.m.FT = 1
			M.FC' = 1
			M.m = 1
			FM.FV = 1
			CF.m = 1
			FC.FM = 1
			FV.CF.m = 1
			FC'.FC = 1
			FY.FT = 1

unexpected dissolution of his marriage. As a consequence, some of his decisions or behaviors may not be as well organized as is usually the case, and he may be prone to forms of impulsiveness in his thinking or behaviors that, typically, would be very uncommon for him (basic hypothesis, and Step 2, Finding 2).

The situation appears to be impacting most on his thinking, and may be interfering with his concentration or his ability to maintain a consistent focus of attention (Step 3, Finding 2). As noted in the findings concerning controls, he seems to be ruminating a great deal about his own perceived shortcomings, and apparently feels very remorseful about the dissolution of his marriage (Step 4, Finding 2). It seems likely that he has a long-standing confusion or ambivalence about some of his feelings, and the current stress experience has significantly increased his psychological complexity (Step 6, Finding 2) and the confusion about his feelings (Step 7, Finding 2). This increases his vulnerability to disorganization.

Ideation

He is an ideational person who usually prefers to think things through and delay decisions or behaviors until he has considered various options.

He strives to be logical in his thinking, and relies more on his own internal evaluations than external feedback when making decisions. Usually, he tries to avoid being overly influenced by emotions and will avoid trial-and-error behaviors when possible (Step 1, Finding 1). This is a common decision-making style among many adults and, typically, it can be quite effective, especially if the person is flexible about its use. He seems to have that sort of flexibility, indicating that he is likely to engage in more intuitive or trial-and-error approaches when circumstances make such an approach appear to be preferable (Step 2, Finding 1).

As noted from the data concerning stress, there has been a noticeable increase in his mental activity due to his current situation. It is a sort of subconscious rumination that involves his inability to bring closure to his problems. This causes distractions, and tends to interfere considerably with his attention and concentration (Step 5, Finding 4). This probably accounts for the fact that he has begun writing notes to himself to remember important things. There is no reason to question the clarity of his thinking (Step 8, Finding 1), which tends to be sophisticated, and often is rather creative (Step 11).

Case 14. Ideation Variables for a 42-Year-Old Male.

L	= 0.26	OBS	= No	HVI	= No	Critical Special Scores (R = 24)	
						DV = 0	DV2 = 0
EB	= 7:4.5	EBPer	= 1.6	a:p	= 7:9	INC = 0	INC2 = 0
				Ma:Mp	= 6:2	DR = 0	DR2 = 0
eb	= 7:9	[FM = 3 m = 5]		M-	= 0	FAB = 0	FAB2 = 0
				Mnone	= 0	ALOG = 0	CON = 0
Intell Indx = 1		MOR	= 2			Sum6 = 0	WSum6 = 0

M Response Features

- III 5. D+ Ma.FC'o 2 H,Sc P 3.0 COP,GHR
- V 7. W+ Ma-p.FV.mp.FT+ 2 H,Cg 2.5 PER,COP,GHR
- VII 13. W+ Ma.mpo 2 H,Sc P 2.5 COP,GHR
- IX 18. D+ Mao H,Sc 2.5 GHR
- X 21. D+ Mau 2 (H),Id 4.0 COP,GHR
- X 23. D+ Mau 2 H,Id 4.0 COP,GHR
- X 24. D+ Mpo H,Sc 4.0 GHR

Case 14. Processing Variables for a 42-Year-Old Male.

EB = 7:4.5	Zf = 17	Zd = 0	DQ+ = 14
L = 0.26	W:D:Dd = 8:15:1	PSV = 0	DQv/+ = 0
HVI = NO	W:M = 8:7		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: Wo.Do	VI: Wo.D+
II: DS+.DS+	VII: W+
III: D+.Do	VIII: W+.DdSo.Do
IV: D+.W+	IX: W+.D+.DSo
V: W+.Wo	X: Dv.D+.Do.D+.D+

Processing

He invests more effort than most people when organizing information (Step 1, Finding 1). At the same time, he is relatively economical and reasonably consistent in the manner by which that effort is targeted (Step 2, Finding 2b; Step 3, Finding 2). Usually, he sets processing objectives that are consistent with this conservative orientation (Step 5). Actually, his scanning efficiency is quite adequate (Step 6, Finding 1), and the overall quality of his processing seems to be quite good, and rather complex (Step 7, Finding 3; Step 8).

Mediation

He appears to make a special effort to translate information in an appropriate manner. People

who do this usually have some concerns about being accurate or correct (Step 1, Finding 2). They like to be sure of themselves in situations. When the cues for the expected are obvious in various situations, it is quite likely that he will manifest those sorts of behaviors (Step 4, Finding 1). He seems oriented toward being precise when possible (Step 5, Finding 2), and this probably motivates him to seek out obvious cues in his environment. Although he has a substantial proclivity to form behaviors that are in accord with social demands or expectations, he is not a slave to conventionality. Frequently, he manifests behaviors that reflect his own uniqueness.

Case 14. Mediation Variables for a 42-Year-Old Female.

R = 24	L = 0.26	OBS = No	Minus & NoForm Features
FQx+ = 1	XA% = 1.00		
FQxo = 19	WDA% = 1.00		
FQxu = 4	X-% = 0		
FQx- = 0	S- = 0		
FQxnone = 0			
(W+D = 23)	P = 5		
WD+ = 1	X+% = .83		
WDo = 18	Xu% = .17		
WDu = 4			
WD- = 0			
WDnone = 0			

Summary of Findings Regarding Cognition

When processing information, he invests considerable effort to study each new field of information. He does this in an economical and consistent way. Although a bit conservative in these efforts, he scans very efficiently, and the overall quality of his processing is quite good. He likes to make sure that he translates information appropriately and accurately, and seems alert to cues that identify expected or acceptable behaviors. Although he likes to be sure of himself, he also will often express his own individuality in new situations.

He is an ideational person, who likes to think things through before forming decisions. When practical, he prefers to avoid being influenced by his feelings and, typically, does not like to test out his ideas through trial-and-error behaviors. Usually, his thinking is clear and relatively sophisticated, however, he is currently experiencing much more mental activity than is customary for him. This appears to be provoked by elements of situational stress, probably his dissolved marriage and his apparent inability to contend with the consequences of it. This stress has given rise to considerable peripheral, or subconscious thinking that often becomes distracting and probably interferes with his attention and concentration. Overall, he seems to be a cognitively well put together person who is currently struggling with more ideational activity than is common for him, and which probably is causing much irritation and distraction that he seems unable to contend with easily.

Affect

As noted from the data concerning ideation, he usually prefers to keep his feelings aside when making decisions. He is probably willing to display his feelings, but he is also likely to be concerned that his emotions do not get out of control (Step 2, Finding 6). He appears to be in considerable distress. Apparently, it is the product of a composite of negative feelings, including loneliness, a strong sense of guilt or remorse, and a marked tendency to inhibit the release of negative feelings.

The manifestations of this distress can take any of several forms but, in this case, it probably results in depression or sadness, tension, fatigue, anxiety, and distractibility (Step 4, Finding 3). Actually, he is the type of person who usually is attracted by emotional stimulation and interested in emotional exchange (Step 6, Finding 2). This suggests that he is unaccustomed to dealing with negative emotions. Thus, when they occur with a considerable magnitude, he is probably at a loss about how best to contend with them.

It was noted earlier that he may be concerned about making sure that his emotional displays do not get out of hand. Actually, he tends to be a bit less stringent about controlling his emotional displays than are most people, especially those who have an ideational style. His emotions are not loosely controlled or overly intense, but he is often more obvious when expressing feelings than might be expected (Step 9, Finding 7). On the other hand, he is an angry person (Step 11, Finding 5). It

Case 14. Affect-Related Data for a 42-Year-Old Male.

EB = 7:4.5		EBPer = 1.6	Blends
eb = 8:9	L = 0.26	FC:CF+C = 3:3	M.FV.m.FT = 1
DEPI = 4	CDI = 2	Pure C = 0	M.m = 1
			M.FC' = 1
C' = 3 T = 2		SumC':SumC = 3:4.5	FM.FV = 1
V = 3 Y = 1		Afr = 0.85	FC.FM = 1
			CF.m = 1
Intellect = 1	CP = 0	S = 4 (S to I,II,III = 2)	FV.CF.m = 1
Blends:R = 9:24		Col-Shad Bl = 2	FC'.FC = 1
m + y Bl = 2		Shading Bl = 2	FY.FT = 1

Case 14. Self-Perception Related Data for a 42-Year-Old Male.

R = 24	OBS = No	HVI = No	Human Content, An & Xy Responses
Fr + rF = 0	3r + (2)/R = 0.33	I 2. Do Fo Hd PHR	
FD = 1	SumV = 3	III 5. D+ Ma.FC'o 2 H,Sc P 3.0 COP,GHR	
An + Xy = 0	MOR = 2	V 9. W+ Ma-p.FV.mp.FT+ H,Cg 2.5 PER, COP,PHR	
		VII 13. W+ Ma.mpo 2 H,Sc P 2.5 COP,GHR	
		IX 18. D+ Mao H,Sc 2.5 GHR	
		X 21. D+ Mau 2 (H),Id 4.0 COP,GHR	
		X 23. D+ Mau 2 H,Id 4.0 COP,GHR	
		X 24. D+ Mpo H,Sc 4.0 GHR	
H:(H) + Hd + (Hd) = 6:2			
[EB = 7:4.5]			

is impossible to detect if this is a long-standing feature, or part of his reaction to more recent circumstances. The latter seems likely, and there is probably some relationship between his anger and the tendency to inhibit the release of feelings that was noted earlier.

He is, psychologically, very complicated (Step 12, Finding 3), but this complexity is probably more recent than long-standing (Steps 13 and 14). Much of it seems created by the current situationally related stress and the variety of negative emotions that are impacting on him. Much of this seems confusing to him (Step 15, Finding 2), and some is apparently very painful and potentially disruptive for him (Step 16).

Self-Perception

Ordinarily, he is no more or less involved with himself than are most people (Step 3, Finding 2). On the other hand, and has been noted earlier, he is very involved in some unusual self-inspecting behavior. This kind of rumination suggests that he may be very conflicted about his self-image (Step 4, Finding 3). It seems likely that he has, or

is developing, a pessimistic view of himself (Step 6, Finding 1).

It appears likely that his self-image is well developed and based mainly on social interactions, much more than fantasy or imagination (Step 7a, Finding 1). However, as noted, he also tends to feel uncomfortable about himself (Step 7b). He seems to harbor a sense of being useless or damaged (Step 8b, responses 7 and 11). Nonetheless, the basic substance of his self-image is generally positive and reasonably sturdy (Step 8c, *M* answers), even though he appears to be questioning his own worth (Step 8d, response 3), or integrity (Step 8d, response 20), and feels under attack (Step 8d, response 12). He appears to be a status-oriented person (Step 8e, responses 4, 9, 10, 14, and possibly 17), but also has a sense of timidity or helplessness about him (Step 8e, responses 4, 7, 11, 21, 22, and 24). It is likely that these latter features have developed recently.

Interpersonal Perception

He appears to prefer to assume a more passive role in his interpersonal relations (Step 3), but

Case 14. Interpersonal Perception Data for a 42-Year-Old Male.

R = 24	CDI = 2	HVI = No	COP & AG RESPONSES
a:p = 7:9	SumT = 2	Fd = 0	III 5. Ma.FC'o 2 H,Sc P 3.0 COP,GHR
	[eb = 7:8]		V 9. W+ Ma-p.FV.mp.FT+ 2 H,Cg 2.5 PER,COP,GHR
Sum Human Contents = 8		H = 6	VI 12. D+ mao Sc,Ex,Na 2.5 AG
[Style = Introversive]			VII 13. W+ Ma.mpo 2 H,Sc P 2.5 COP,GHR
			X 21. D+ Mau 2 (H),Id 4.0 COP,GHR
			X.23. D+ Mau 2 H,Id 4.0 COP,GHR
GHR:PHR = 7:1			
COP = 5	AG = 1	PER = 1	
Isolation Indx = 0.46			

this may be a more recent feature that has developed in relation to the stress with which he is attempting to contend (4 of his passive movement answers are *m*). As has been noted earlier, he has some rather strong unfulfilled needs for emotional closeness (Step 5, Finding 5) which have probably resulted from his broken marriage. Nonetheless, they will impact on any current social relationships. He is quite interested in people, and usually perceives them in a reality based perspective (Step 6, Finding 1).

It is reasonable to assume that, generally, he engages in interpersonal behaviors that are adaptive for a broad spectrum of situations, and he is probably regarded favorably by others (Step 7, Finding 1). In fact, it is probable that he is regarded by others as being likeable and outgoing. People like this tend to view relations with others as important, and usually are perceived by others to be gregarious in group interactions (Step 8, Finding 5). There is some evidence to suggest that he may be more socially isolated than would be expected from other findings (Step 10, Finding 2). This may be a spurious finding, but also may reflect more of his current state (all 3 *Na* contents occur in answers containing *m*) in which he may feel less secure about his interpersonal relations.

THE COMPLETE DESCRIPTION AND RECOMMENDATIONS

Descriptions can be written in different ways, including ones that might cast findings in various theoretical models of personality and/or behavior. Sometimes this is necessary, but when that is not the case, the interpreter should strive for a description that can be understood by most any intelligent person. The use of professional jargon can often deter from that objective.

Ideally, the description will be written in a manner that gives appropriate emphasis to both assets and liabilities and will end by addressing the questions raised in the referral, together with meaningful recommendations concerning treatment. Treatment recommendations can be

expanded by focusing on specific intervention tactics, spelling out whether they might be appropriate or inappropriate, and the timing in which they might be explored. However, recommendations such as those are probably best reserved for instances in which the interpreter is familiar with the orientation and skills of the person for whom the report is prepared.

Most important, the final description and recommendations should be devised in a manner that tries to capture the complex relationships that exist among the features of the personality of the individual and his or her world. Every person is complex in his or her own way, and the antecedents of trouble rarely are simple and straightforward. Well-formulated descriptions, based on Rorschach findings, will usually avoid concrete diagnostic conclusions, and present a sketch that gives a full measure of the findings, so that those committed to the care of the individual will have, at the very least, a basic understanding from which to begin.

CASE 14 DESCRIPTION AND RECOMMENDATIONS

This 42-year-old man is struggling with considerable stress that appears to be situationally related. It is creating much more psychological activity and complexity within him than is customary. It is probably related to the difficulties he is experiencing in contending with the sudden and unexpected dissolution of his marriage. A consequence of this situation is that some of his decisions or behaviors may not be as well organized as is usually the case, and he is vulnerable to forms of impulsiveness in his thinking or behaviors that, ordinarily, would be very uncommon for him.

The significant increase in his psychological complexity includes considerable peripheral or subconscious forms of ideation that have been prompted by a sense of helplessness or inability to bring closure to his problems. This causes distractions, and tends to interfere with his attention and concentration. This probably accounts for the fact

that he has began writing notes to himself to remember important things.

The increased complexity has also created considerable confusion about his feelings, and some are very painful for him. He seems to be in much distress, which is caused mainly by his feelings of helplessness, plus a composite of confusing and negative emotions. He feels lonely, and apparently harbors a strong sense of guilt or remorse. The latter is produced by a great deal of ruminating about his own perceived shortcomings. He is also very angry, but probably does not exhibit this very much. This is because he has a noticeable tendency to suppress feelings that he would prefer to release. It is impossible to determine if his anger is a long-standing feature, but it is more likely a reaction to his current situation.

Actually, he is the type of person who, usually, is willing to become involved in emotional exchanges, but he is also probably unaccustomed to dealing with strong negative emotions, especially when they exist within him. Thus, it is likely that he is very confused about how best to deal with the feelings that he is experiencing. The result is discomfort, anxiety, sadness, and/or tension.

Ordinarily, he is an ideational person who usually prefers to think things through and delay decisions or behaviors until he has considered various options. He strives to be logical, and relies on his own internal evaluations more than external feedback when making decisions. This is an effective tactic because his thinking is usually clear, reasonably sophisticated, and often is rather creative. Typically, he tries to avoid being overly influenced by emotions. He is willing to display his feelings, sometimes intensively, but he also likes to make sure that they do not get out of control. This is a common decision-making style, and it can be quite effective, especially if the person is flexible about its use, as seems to be the case here.

His capacity for control and tolerance for stress are adequate, and may have been even greater than currently indicated. He invests more effort than most people to organize new information, but is also relatively economical and consistent in the

manner by which he does this. He scans efficiently, and the overall quality of his processing is quite good and rather complex.

He makes a special effort to translate information in an appropriate manner. People who do this usually like to be sure of themselves in situations. He seems oriented toward being precise when possible, and this probably motivates him to seek out obvious cues in his environment. Although he has a proclivity to form behaviors that are in accord with social demands or expectations, he is not a slave to conventionality, and often will manifest behaviors that reflect his own uniqueness.

Usually, he is no more or less involved with himself than are most people, but the ruminative introspection that he is currently involved with is provoking conflicts about his self-image. As a result, it is likely that he has, or is developing, a pessimistic view of himself. Actually, his self-image seems to have been well developed, but he now is inclined to feel uncomfortable about himself, and seems to harbor a sense of being useless or damaged. Thus, while the basic substance of his self-image remains generally positive and is reasonably sturdy, he also appears to be questioning his own worth or integrity.

He is a status oriented person, but there is also a sense of timidity or helplessness about him. It is likely that this latter feature has developed recently. He also appears to have developed an inclination to assume a more passive role in his interpersonal relations, but this is likely to be a more recent feature that has evolved in relation to the stress with which he is attempting to contend. Usually, he is quite interested in people, and perceives them in a reality-based perspective. Ordinarily, he engages in interpersonal behaviors that are adaptive for a broad spectrum of situations, and he is probably regarded by others as being likeable and outgoing. People like this tend to view relations with others as important, and usually are perceived to be gregarious in group interactions. There is some evidence to suggest that he may be more socially isolated than would be expected from other findings. This may be a spurious

finding, but also may reflect more of his current state in which he may feel less secure about his interpersonal relations.

Issues and Recommendations

There is no evidence of severe depression, or that he is at risk to himself. However, the seeds from which either or both conditions could evolve do exist. This man is in great turmoil, and seems to feel helpless about how to deal with it. Intervention should proceed rapidly and focus on providing considerable support, with the objective of recapturing his previous levels of stability. Medication should probably be avoided, at least during the early phase of intervention. The most important immediate objectives for treatment are to examine and alter the focus of his self-examining behaviors, provide opportunities for the controlled ventilation of his anger, and develop some relatively short-term objectives concerning social relationships. Gradually, it will also be very useful to review his relationships with his children, and review the circumstances of his marriage, especially the last year or two, to assist him in developing a more realistic understanding of the causes for its failure.

Case 15

This 31-year-old female was referred by her psychiatrist for evaluation. She has been seeing him irregularly (21 visits) during the past year because of anxiety attacks, that usually include episodes of hyperventilation, and five reported episodes of depression that have lasted from three to seven days. The psychiatrist reports that, mainly, he has used a pharmacological approach to treatment (anti-anxiety and anti-depressants) because she has been resistant to a weekly psychotherapeutic routine. She believes that her anxiety problem has an endocrine or nutritional basis. He notes that, after seeing her for about five months, he recommended her participation in a 10-week anxiety management program. She participated for five weeks, but discontinued because "it wasn't helping at all."

Recently, her 8-year-old son was evaluated in school because he has seemed detached and uninvolved, and has an inconsistent academic performance in the third grade. As a result, he has entered into a group (play) therapy program. The psychiatrist has suggested to her that a similar evaluation might be useful in determining how best to treat her anxiety and depression, and she has reluctantly agreed. During the pretesting interview, she reported that her anxiety attacks are very disabling for a brief period, "It wipes me out for the day, and sometimes I still can't do anything the next day." She describes her experiences of depression as characterized by feelings of lethargy, disregard for her family, difficulty sleeping, and a gradual development of a sense of impending doom. She denies any relationship between the anxiety attacks and the depressive episodes, but notes that the possibility of such a relationship has been raised by her psychiatrist several times.

She is described by the examiner as average height, slightly overweight, and moderately attractive. The examiner, a female, reports that she seemed somewhat unkempt and conveyed a disorganized appearance. There were no indications of anxiety during the evaluation, and she seemed interested in the various tasks. She is the second of three children. Her father, age 62, is an elementary school principal. Her mother, age 60, teaches mathematics and science in the seventh and eighth grades. Her brother, age 34, has an MS degree in geology and works in oil exploration. Her sister, age 26, has a degree in education but has never taught. She is married to an attorney and has two children.

She reports a normal developmental history with the exception of asthmatic attacks that occurred between the ages of 8 and 12. During those years, she was on a regular medicinal routine, and did not participate in strenuous physical activities in or out of school. She says that the asthmatic attacks declined as she entered pubescence and that she has not had any episodes since the age of 15. Her grades in high school were above average, and she graduated in the top 20% of her class. She entered college at age 18 with the intention of majoring in art history. By the end of her second college year, she found that her interest had changed more to commercial art, and she dropped out after the first semester of her junior year to accept a position in the commercial art department of a weekly magazine.

She says that she dated frequently during high school and had her first sexual experience at age 17 with a boy

she had been dating regularly. She dated several young men in college, but notes that she did not become "deeply" involved with anyone during those years. She met her husband during the first six months of her employment when he visited the magazine offices as a paper salesman. She says that they dated for approximately one year before marrying when she was age 22. She reports that they have similar interests and activities such as camping, boating, and collecting old original prints.

She became pregnant approximately eight months after being married and decided to terminate her employment at that time. Since then she has worked part-time as a freelance illustrator, and this usually requires between six to eight hours per week. Her husband, age 35, works as a salesman for a paper manufacturer. His work requires him to be away from home two or three days during each week, and occasionally for longer periods. She believes that some of her problems, and possibly her son's difficulties, can be attributed to the fact that her husband is away from home so much. Recently, he has made arrangements to cover a different sales district, and that will permit him to be home more of the time.

She says that the episodes of anxiety began about two years ago, and have interfered with her productivity. She says that she would like to accept more work, but is fearful of the responsibility for meeting deadlines. She says that the bouts of depression began about

a year ago, and believes that they occur because she cannot control the anxiety attacks. She seems convinced that they will subside if the anxiety attacks cease. She believes there is a relationship between these episodes and her history of asthma, but is not more specific about this possibility. She concedes that two very thorough physical examinations during the past two years have not produced any findings that can account for her difficulties.

She says that since she has been seeing the psychiatrist, the episodes have reduced in frequency, but still occur about once every 12 to 15 days. She reports that the anti-anxiety medication "doesn't help at all," but the anti-depression medication does help "to pull me out" of the depression, "It just doesn't seem to prevent it from happening again." She states that she's confused by the problems that her son seems to be having in school, and suspects that his teacher possibly makes too much of this. She is worried that he might be entered in a special class because of his erratic academic performance. She states that she never has any problems with him at home and notes that he always enjoys helping her around the house.

The referring psychiatrist has asked: (1) for information concerning the etiology of the anxiety attacks, (2) if there is a clear relationship between the depression and anxiety episodes, (3) for a complete personality description, and (4) for any recommendations concerning treatment.

Case 15. A 31-Year-Old Female.

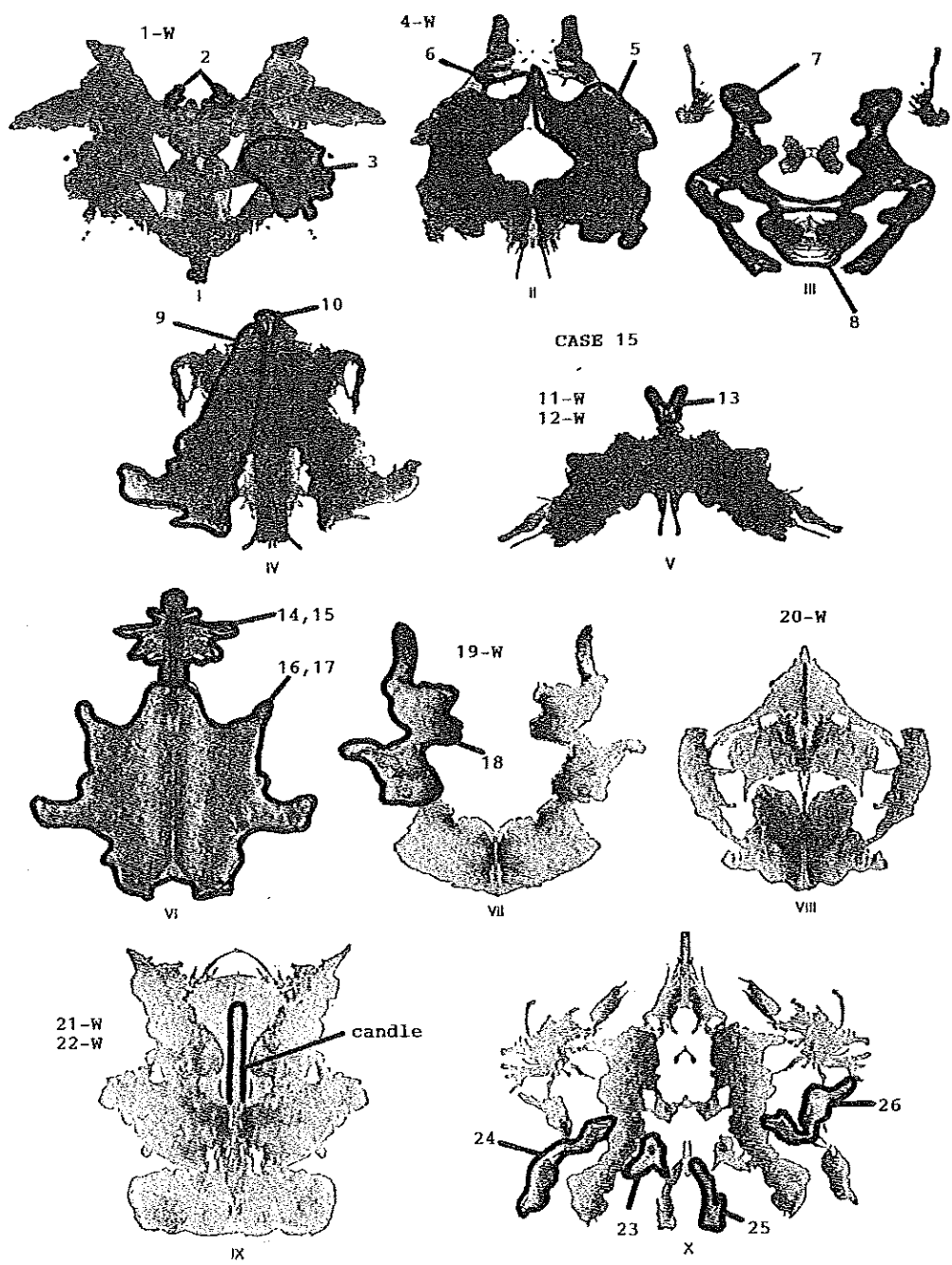
Card Response		Inquiry
I	1. A bf	E: (Rpts S's Resp) S: Th W thg, the wgs r damagd where ths oping is, (S) its hurt, mb tryg to find a hidg place to recuperate, its not an ugly impressn, jst the way nature is
	2. Two hands of friendship	E: (Rpts S's Resp) S: One on each side, lik tellng a story lik ppl should stop & listen E: I'm not sur I really c it lik u r S: It j ll tht, nice E: U said it ll its tellg a story? S: It ll its tryg to make a silent person understand, it's lik sign language
	3. An Owl, the face	E: (Rpts S's Resp) S: I'v seen owls before, it ll a Grandfathr owl, lik takg it easy & watchng evrytng go on E: A grandfather owl? S: The face lks aged, contented in his life w all his intelligence lookd insid him, he's been thru his journey & doesn't pay attntn to any nonsense arnd him. He j watches & speculates E: I'm not sur why the face looks aged S: Undr th chin u can c age, ths drkr prt back under the chin ll its aged & the eyes r very mature
	4. Sunshine after a storm	E: (Rpts S's Resp) S: Thes red prts, lik it was a hot day mb after som rain & wind, the sun came thru E: I don't thk I'm seeg it lik u r, help me S: Ths drk prt ll clouds, & the red at the top & bottm ll the sun comg thru, lik th drk clouds r breakg up & th sun is comg thru, if ths wht prt was anothr color it wld be blue, lik blue sky
II	5. A dog, the head & neck	E: (Rpts S's Resp) S: J ths prt, here is th nose, mouth, neck, lik it has ruffld hair, it's lik a stuffd toy, lik if u wind it up it does tricks E: U said it ll it has ruffld hair? S: Th lines & shades make it ll ruffld dog hair
	6. Thes wht prts ll hooves of a horse	E: (Rpts S's Resp) S: Thes wht prts r shapd lik horse hooves
	7. Two French poodies lik thyr a cartoon	E: (Rpts S's Resp) S: Ll an ad printd on a cocktail napkin, w th poodies servg drinks, thyr standg on thyr hind legs E: U said thyr servg drinks? S: Well ths is lik a table in the middl, lik thyr pickg up smthg or servg smthg
	8. A Halloween mask	E: (Rpts S's Resp) S: Ths dwn here ll a cat mask w horns, th white prt is cut out for th eyes, thn ths prt ll whiskers & th sid prts r drkr & tht makes it look more ominous

- IV 9. Prt of a bear with big feet
- E: (Rpts S's Resp)
S: This prt ll prt of a bear, mb sittg or leaning back
E: I'm not sur I c it
S: (Outlines) Its shapd lik a big A, but j the feet & legs, ths top prt is drk & th bottm liter, it ll fur, ths cb a toe here
E: U mentioned fur?
S: Th way the colors biend fr lite to drk makes it ll it's furry, lik a bear wb
10. Top prt is an orchid starting to bloom
- E: (Rpts S's Resp)
S: Cb a lily w th stem of an orchid, lik 1 of thos mixd types of flowrs, ths r th petals, j ths littl prt here, its j startg to bloom, it hasnt completely opend up yet
- V 11. A caterpillar turning into bf, gettg its wgs
- E: (Rpts S's Resp)
S: This prt (D7) ll a caterpillr, it has horns on its head, ths ll prt of th tail, out here (D4) r the wgs, lik it's openg up & thy r extendg out but thy arn't complete yet, the ends r still ragged
12. A disfigured bat
- E: (Rpts S's Resp)
S: Its been hurt bc th ends of the wgs r torn, its sittg dwn, the wgs r jagged, not its real shape anymore, its been beaten, hurt badly
13. Top prt ll an upsid dwn pict of 2 legs, lik a dancers legs
- E: (Rpts S's Resp)
S: Ll 2 legs upsid dwn, w stockgs on, it ll ss of cloth coverg up th legs lik stockgs
E: I'm not clear about the stockgs
S: It's shaded lik cloth or stockgs, not just flesh
- VI 14. Top prt ll wgs spreadg out
- E: (Rpts S's Resp)
S: Ll an artist sketch of a bird flyg w th wgs spread out here (Dd22), u can c the shades of blue
E: Shades of blue?
S: Mayb a bluejay, th artist used two shades of blue
15. Th same prt ll a paintg of leaves on a tree
- E: (Rpts S's Resp)
S: A paintg of som leaves, the cntr is the trunk & the leave extendg out, I imagine rust color, gold & green colors th way th shades blend tog, its a nice print
E: I'm not sur about the gold & green colors
S: If u use ur imaginatn, it ll tht
16. The big prt ll a leaf aftr the wind stripped it of its orig beauty
- E: (Rpts S's Resp)
S: Its dried out, it was beautifl, but the wind damaged it
E: U say it looks dried out?
S: Th liter prts ll its dried up & dying, there is a bumpy effect to it
E: Bumpy effect?
S: If u ran ur finger across it wld feel bumpy
17. The same prt ll a fur rug
- E: (Rpts S's Resp)
S: It ll an A rug, w th arms & legs, & th line in middl of th back makes it look sewed togethr, lik 2 halves
E: U said a fur rug?
S: Thes diff shades mak it ll fur, lik it was rippd in half & th fur was sewed back togethr again

(continued)

Case 15. Continued.

Card Response	Inquiry
VII 18. A cartoon of 2 ltl girls faces mimickng eo for fun, just thes top prts	E: (Rpts S's Resp) S: Bralds r stickg up in the air for th cartoon, th bodys arent real lookg, but thyr mimickng eo w thyr hands & thy hav soft eyes w makeup E: Wht makes it ll thyr mimickg eo? S: J th way thyr lookg at eo E: U said thy hav soft eyes? S: Th way th ink is arnd th eyes makes it l soft, but I wld hav used yellow & red for th lips
19. Prt of a doily, unfinished, in pieces tht hav to b joind togethr to be finishd	E: (Rpts S's Resp) S: Th W thg ll an unfinished doily, lik all thes pcs will eventually get sewed togethr, I made one lik ths once, som prts r already sewn togethr but some arnt, rite now its just pieces
VIII 20. Pretty, I lik th colrs, thy rem me of cloth 4 Easter dresses	E: (Rpts S's Resp) S: Its soft lookg, lik som cloth 4 Easter dresses, th pink & peach make it ll very beautifl E: U said its soft? S: Th colors r soft, pastel lik, not harsh, thy r lik u wld use 4 a lovely wms dress
IX 21. Rem me of a paintng	E: (Rpts S's Resp) S: Th W thg ll th artist took a brush & painted colors arnd a candl in th middl, c here but the glow is blue instead of yellow E: The glow is blue? S: Yeah, ll th candl is lit in th paintng, but th artists interpretatn is to make th glow blue instead of yellow lik it shld b
22. A stained glass window in a church	E: (Rpts S's Resp) S: Th colors ll prt of a stained glass window tht u'd find in a church, I didn't mean I c the window, j the colors of one, the orange & pink & blue, lik thy wb used for a church window
X 23. Thes ll birds, canaries	E: (Rpts S's Resp) S: Th shape ll a bird & thyr yellow lik canaries r
24. Thes prts here ll leaves fallg off a tree	E: (Rpts S's Resp) S: U can c the branch (D7) & ths (D13) is the leaf. It ll thyr fallg about thyr just fallg off the tree, lik whn thy die, thy get brwn lik ths & th directn of thm ll thyr fallg off, lik thyr fallg dwn
v25. Ths bottm green prt ll th figurines of a chessboard	E: (Rpts S's Resp) S: J half of it ll th horse-lik pes of a chessboard, one on each side
26. Here is 2 flowrs, but I didnt bloom, thers too much brown tht shld b green	E: (Rpts S's Resp) S: Cb a rose, or tulips, but ths one (D7) didnt bloom, only th yellow one did, th othr one looks trampld on lik its dead



Case 15. Sequence of Scores.

Card	No.	Loc.	No.	Determinant(s)	(2)	Content(s)	Pop	Z	Special Scores
I	1	WSo	1	Fo		A	P	3.5	MOR,DR AB,DR,PHR DR2,PER,PHR
	2	Do	1	Mao		Hd			
	3	Ddo	99	Mp.FV-		Ad			
II	4	WS/	1	C.C'.mpu		Na,Cl	P	4.5	
	5	Do	1	FTo		(Ad)			
	6	DdSo	30	F-		Ad			
III	7	D+	1	Mpo	2	(A),Art,Hh		3.0	COP,GHR
	8	DSO	7	FY-		(Ad)		4.5	
IV	9	Ddo	99	FMp.FTu		Ad			INC
	10	Ddo	30	mpu		Bt			
V	11	Wo	1	FMpo		A	P	1.0	INC
	12	Wo	1	FMpo		A		1.0	MOR
	13	Ddo		FYu		Hd,Cg			PHR
VI	14	Do	3	FMp.FYo		A,Art			CP
	15	Do	3	FYu		Bt,Art			CP
	16	Do	1	FTo		Bt			MOR
	17	Do	1	FTo		Ad	P		MOR,INC
VII	18	D+	2	Mp.FYo	2	(Hd),Art	P	3.0	DR,COP,GHR PER
	19	W/	1	Fu		Art		2.5	
VIII	20	Wv	1	C		Cg			
IX	21	Wo	1	CFmpo		Art,Hh,Fi		5.5	DR
	22	Wv	1	C		Art			
X	23	Do	2	FCu	2	A			MOR
	24	D+	13	mp.FCu	2	Bt		4.0	
	25	Do	4	Fo	2	Art,(A)			
	26	Do	15	FCu		Bt			

Case 15. Structural Summary.

Location Features		Determinants		Contents	S-Constellation
		Blends	Single		
					No ... FV + VF + V + FD > 2
					Yes ... Col - Shd B1 > 0
Zf = 10	M.FV	M = 2	(H) = 0		Yes ... Ego < .31, > .44
ZSum = 32.5	C.C'.m	FM = 2	Hd = 2		Yes ... MOR > 3
ZEst = 31.0	FM.FT	m = 1	(Hd) = 1		No ... Zd > + - 3.5
	FM.FY	FC = 2	Hx = 0		Yes ... es > EA
W = 8	M.FY	CF = 0	A = 5		Yes ... CF + C > FC
D = 13	CF.m	C = 2	(A) = 2		Yes ... X + % < .70
W + D = 21	M.FC	Cn = 0	Ad = 4		Yes ... S > 3
Dd = 5		FC' = 0	(Ad) = 2		No ... P < 3 or > 8
S = 4		C'F = 0	An = 0		Yes ... Pure H < 2
		C' = 0	Art = 8		No ... R < 17
		FT = 3	Ay = 0		8 ... Total
		TF = 0	Bl = 0		
DQ		T = 0	Bt = 5		Special Scores
+ = 3		FV = 0	Cg = 2	DV	Lv1 Lv2
o = 19		VF = 0	Cl = 1	INC	=0x1 0x2
v/+ = 2		V = 0	Ex = 0	DR	=3x2 0x4
v = 2		FY = 3	Fd = 0	FAB	=4x3 1x6
		YF = 0	Fi = 1	ALOG	=0x4 0x7
		Y = 0	Ge = 0	CON	=0x5
		Fr = 0	Hh = 2	Raw Sum6	=0x7
		rF = 0	Ls = 0	Wgtd Sum6	= 8
		FD = 0	Na = 1		=24
		F = 4	Sc = 0	AB	=1 GHR = 2
			Sx = 0	AG	=0 PHR = 3
			Xy = 0	COP	=2 MOR = 6
			Id = 0	CP	=2 PER = 2
					PSV = 0
		(2) = 5			
Form Quality					
	FQx	MQual	W + D		
+ = 0	=0	= 0	rF = 0		
o = 12	=3	=12	FD = 0		
u = 9	=0	= 6			
- = 3	=1	= 1			
none = 2	=0	= 2			
Ratios, Percentages, and Derivations					
R = 26	L = 0.18		FC:CF + C = 3:4	COP = 2	AG = 0
			Pure C = 3	GHR:PHR = 2:3	
EB = 4:7.0	EA = 11.0	EBPer = 1.8	SumC':WSumC = 1:7.0	a:p = 1:11	
eb = 8:11	es = 19	D = -3	Afr = 0.37	Food = 0	
	Adj es = 12	Adj D = 0	S = 4	SumT = 4	
FM = 4	C' = 1	T = 4	Blends:R = 7:26	Human Cont = 3	
m = 4	V = 1	Y = 5	CP = 2	Pure H = 0	
				PER = 2	
				Iso Indx = 0.35	
a:p = 1:11	Sum6 = 8	XA% = 0.81	Zf = 10.0	3r + (2)/R = 0.19	
Ma:Mp = 1:3	Lv2 = 1	WDA% = 0.86	W:D:Dd = 8:13:5	Fr + rF = 0	
2AB + Art + Ay = 10	WSum6 = 24	X-% = 0.12	W:M = 8:4	SumV = 1	
Mor = 6	M- = 1	S- = 2	Zd = +1.5	FD = 0	
	Mnone = 0	P = 5	PSV = 0	An + Xy = 0	
		X+% = 0.46	DQ+ = 3	MOR = 6	
		Xu% = 0.35	DQv = 2	H:(H) + Hd + (Hd) = 0:3	
PTI = 1	DEPI = 7*	CDI = 3	S-CON = 8*	HVI = No	OBS = No

The first positive Key variable is that the DEPI is greater than five. Therefore, the data cluster concerning affect will be addressed first, followed by the clusters regarding controls, self-perception, interpersonal perception, and the cognitive triad. Before beginning the cluster review, it is very important to note the positive finding for the Suicide Constellation.

S-CON

The issue of self-risk was not raised in the referral, and there is no hint of a self-destructive preoccupation in the interview. Nonetheless, the positive S-CON indicates that she has many features common to those who effect their own death within a short time after taking the Rorschach. A further exploration of the possibility of a self-destructive preoccupation should be pursued expeditiously.

Affect

It seems reasonably certain that she has a significant, long-standing, and very disabling affective problem that has many of the features of a major depressive disorder (Step 1, Finding 1). Ordinarily, she is the type of person who is prone to merge her emotions with her thinking when making decisions. People like this are rather intuitive, and rely on their feelings when forming judgments. They are disposed to engage in trial-and-error behaviors to test out postulates and assumptions, and are not very concerned about making errors.

They are inclined to display their feelings openly, and are less concerned than others about carefully controlling those displays (Step 2, Finding 4). She does not appear to be inflexible about this approach, and instances will occur when she puts her feelings aside in favor of a more ideational approach (Step 3, Finding 1). Nonetheless, when intuitively oriented people experience affect-related problems, the impact is often quite intense and potentially disorganizing.

It is clear that she is burdened by some chronic and considerable distress, which appears to be exacerbated now by some situationally related factors (Step 4, Finding 3). The features of the more chronic discomfort appear to include strong feelings of loneliness or emotional deprivation, and a tendency to engage in introspective behavior during which she focuses on features of herself that she regards negatively. The more situational elements that are contributing to her distress appear related to a sense of helplessness or futility.

The history contains no information about recent trauma or loss, other than her son's school difficulties. Thus, it is difficult to speculate about the etiology of this sense of helplessness but, possibly, it has evolved from an accumulation of events. A year of irregular treatment, mainly pharmacological, has not yielded very favorable results. She continues to experience disabling episodes of anxiety and/or depression, and two physical exams have failed to provide any support for the notion that her difficulties have a physiological basis.

Case 15. Affect-Related Data for a 31-Year-Old Female.

EB = 4:7.0		EBPer = 1.8		Blends
eb = 8:11	L = 0.18	FC:CF+C = 3:4		M.FV = 1
DEPI = 7	CDI = 3	Pure C = 3		M.FY = 1
				FM.FT = 1
C' = 1 T = 4		SumC':SumC = 1:7.0		FM.FY = 1
V = 1 Y = 5		Afr = 0.37		C.C'.m = 1
				CF.m = 1
Intellect = 10	CP = 2	S = 4 (S to I,II,III = 4)		m.FC = 1
Blends:R = 7:26		Col-Shad Bl = 1		
m + y Bl = 4		Shading Bl = 0		

Now, her son is having problems, and this probably adds to the mix. Finally, she has been enticed into an evaluation about which she is reluctant. Certainly, this composite could give rise to feelings of futility.

Even though she relies on feelings when making judgments, some of the findings indicate that she has a marked tendency to avoid emotional stimulation. People like this are very uncomfortable with emotion, and often are socially constrained or isolated (Step 6, Finding 4). This is very unusual for an intuitive person, and probably reflects the considerable turmoil that she has in dealing with her own feelings. Other findings highlight two very important defenses that she is accustomed to using in emotional situations that she perceives as intense or irritating. Neither are likely to be very effective over long periods of time.

The first is intellectualization, which she uses with regularity (Step 7, Finding 2). It is a process by which she attempts to neutralize the impact of feelings by dealing with them on an ideational rather than emotional level. It is a tactic that conceals or denies the presence of feelings, thereby reducing the likelihood that the feelings will be dealt with directly. It is probable that this process has contributed significantly to her avoidance of more involvement in treatment during the past year.

The second defense is even more likely to interfere with adjustment. It is a form of denial in which positive emotions or values are attributed to unpleasant or irritating emotional situations (Step 8). It is a hysteroid process that involves a disregard for, or bending of, reality to avoid dealing with the perceived harshness of a situation. It involves self-deception and is often very transparent. People who do this are frequently judged

by others as being superficial. In this case, it probably has permitted her to avoid acknowledgment of much of her distress and has contributed to the intensification of her plight.

She has some noticeable problems in controlling her feelings effectively. At times, she is overly intense and may convey impressions of impulsiveness (Step 9, Finding 8). However, she is usually able to conceal the intensity of her feelings by using her defensive tactic of intellectualization (Step 10). She tends to become very oppositional when confronted with unwanted challenges (Step 11, Finding 3), but is likely to display this in subtle, less direct ways. Ordinarily, she is not a very complex person (Step 12, Finding 1), but has become more so recently because of the situational stress (Step 13). Sometimes, she becomes confused by, or uncertain about feelings (Step 15, Finding 1), but this is not atypical for an intuitive person. However, it is a liability for any person who experiences frequent bouts of emotional disruption.

Controls

Ordinarily, her capacity for control and her tolerance for stress are quite adequate, as she has reasonably good psychological resources available to her (Step 1, Finding 1 & Step 2, Finding 1). In fact, her capacities for control may have been even more sturdy than now indicated (Step 4, Finding 2). Unfortunately, the presence of the previously noted situationally related stress has reduced her control capacities and stress tolerance considerably. The impact of the stress is substantial, and the resulting sense of futility interferes markedly with her customary patterns of thinking and behavior (Situational Stress Array,

Case 15. Control-Related Variables for a 31-Year-Old Female.

EB = 4:7.0	EA = 11.0		D = -3	CDI = 3
eb = 8:11	es = 17	Adj es = 12	AdjD = 0	L = 0.18
FM = 4 m = 4	SumC' = 1	SumT = 4	SumV = 1	SumY = 5

Case 15. Self Perception Related Data for a 31-Year-Old Female.

R = 26	OBS = No	HVI = No	Human Content, An & Xy Responses
Fr+rF = 0	3r+(2)/R = 0.19		I 2. Do Mao Hd AB,DR,PHR
			V 7. Ddo FYu Hd,Cg PHR
FD = 0	SumV = 1		VII 18. D+ Mp.FYo 2 (H),Art P 3.0 DR,COP,GHR
An+Xy = 0	MOR = 6		
H:(H)+Hd+(Hd) = 0:3			
[EB = 4:7.0]			

Step 2, Finding 2). In this state, she is quite vulnerable to considerable disorganization.

Self-Perception

Her estimate of her own personal worth is clearly negative. She seems to regard herself very unfavorably when making comparisons with others (Step 3, Finding 3). As noted earlier, she is inclined to ruminate about features of herself that she judges negatively, and this yields painful feelings (Step 4, Finding 3). Her self-image is noticeable for negative attributions, and she harbors a very pessimistic view of herself (Step 6, Finding 2). In fact, it seems likely that her current impressions of herself are based largely on imagination, or distortions of her experiences (Step 7a, Finding 2b).

She tries to intellectualize about her self-image (Step 7b, Step 8a, responses 4 and 8), but is not very successful in doing so. Generally, she regards herself as being badly damaged, and suffering from the hurts that have been imposed on her. This

pessimistic view of herself is also notable because it includes some suggestions of hopelessness, and a subtle death preoccupation which seems to be intellectually woven into her thinking (Step 8b, responses 12, 16, 17, 24, and 26).

Her sense of self seems quite unreal and lacking the features of self-conceptualization that are usually found among adults (Step 8c, responses 2, 3, 7, and 18). At the same time, there is a vague sense of optimism that things might change for the better, but this also seems unreal because it is conveyed in an overly intellectualized manner that emphasizes the imaginary (Steps 8d and 8e, responses 4, 10, 11, 19, 20).

Interpersonal Perception

In most interpersonal situations, she is likely to assume a passive, but not necessarily submissive, role. She apparently prefers to avoid responsibility for decisions and is not very prone to seek out new solutions to problems, or try out new behaviors (Step 3). This passivity may be a product of

Case 15. Interpersonal Perception Data for a 31-Year-Old Female.

R = 26	CDI = 3	HVI = No	COP & AG RESPONSES
a:p = 1:11	SumT = 4	Fd = 0	II 3. D+ Mpo 2 (A),Art,Hh 3.0 COP,GHR
	[eb = 8:11]		VII 18. D+ Mp.FYo 2 (Hd),Art P 3.0 DR,COP,GHR
Sum Human Contents = 3		H = 0	
[Style = Extratensive]			
GHR:PHR = 2:3			
COP = 2	AG = 0	PER = 2	
Isolation Indx = 0.35			

Case 15. Processing Variables for a 31-Year-Old Female.

EB = 4:7.0	Zf = 10	Zd = 1.5	DQ+ = 6
L = 0.18	W:D:Dd = 8:13:5	PSV = 0	DQv/+ = 0
HV1 = NO	W:M = 8:4		DQv = 1
OBS = NO			

Location & DQ Sequencing

I: WSo.Do.Ddo	VI: Do.Do.Do.Do
II: WSw/+.Do.DdSo	VII: D+.Wv/+
III: D+.DSO	VIII: Wv
IV: Ddo.Ddo	IX: Wo.Wv
V: Wo.Wo.Ddo	X: Do.D+.Do.Do

her affective disarray, but it is likely to be a more long standing characteristic. As noted earlier, she has strong needs for emotional closeness, and probably feels very lonely (Step 5, Finding 3). These are reasonably intense feelings that can easily cloud many of her judgments. There is no reason to suspect that these feelings have developed recently. Instead, it is likely that, for a long time, she has longed for close emotional relations, but has been at a loss about how to achieve this. In the interview, she reports a reasonably stable marriage, but that report seems questionable in light of this finding.

She seems interested in people, but she does not understand them very well. That lack of understanding can often lead to interpersonal blunders that will alienate others (Step 6, Finding 2). Sometimes, people like this have much greater expectations for their relationships than are reasonable, and when this is true, they often interpret the behaviors of others as reflecting more neglect or rejection than is really the case. Whether this speculation is valid or not for her, it is very likely that her own interpersonal behaviors are often less adaptive for the situation than might be desired (Step 7, Finding 2). In spite of this, it appears that she usually anticipates that interactions with others will be positive, and is interested in participating in them (Step 8, Finding 3).

She seems prone to be somewhat defensive in interpersonal situations, and sometimes will rely

on displays of information as a way of maintaining security in the situation (Step 9, Finding 1). Whether that tactic is successful is almost irrelevant because other findings suggest that she is somewhat socially isolated (Step 10, Finding 2). It is probable that she finds it difficult to create or sustain smooth and meaningful relations with others. This is because she tends to assume a more artificial role in many of her interactions (Step 11), which is frequently characterized by efforts to intellectualize and/or deny the realities of feelings that naturally occur during social intercourse.

Processing

When processing new information, she tends to invest about as much effort as do most people (Step 1, Finding 1). On the other hand, the manner by which she processes is more atypical. She strives to be economical when processing, but sometimes overdoes this by focusing more on minute or unusual features of a new field of information (Step 2, Finding 2c). This may reflect a tendency to be guarded about new information, and minimize her involvement with ambiguities. She seems to be reasonably consistent in this approach (Step 3, Finding 2). Her scanning efficiency appears to be adequate (Step 5, Finding 1), but the quality of her processing activity seems to be overly conservative, and often less than adequate (Step 7, Finding 6). This is especially true when she is confronted with complex situations that involve emotional stimuli (Step 8).

Case 15. Mediation Variables for a 31-Year-Old Female.

R = 26	L = 0.18	OBS = No	Minus & NoForm Features
FQx+ = 0	XA% = .81	I 3. Ddo99 Mp.FV- Ad DR2,PER,PHR	
FQxo = 12	WDA% = .86	II 6. DdSo30 F- Ad	
FQxu = 9	X-% = .12	III 8. DSo7 FY- 2 (Ad) 4.5	
FQx- = 3	S- = 2		
FQxnone = 2			
(W+D = 21)	P = 5		
WD+ = 0	X+% = .46		
WDo = 12	Xu% = .35		
WDu = 6			
WD- = 1			
WDnone = 2			

Mediation

The manner in which she translates new information is usually appropriate, and there is no reason to suspect that her reality testing is noticeably impaired (Step 1, Finding 1). However, at times, the intensity of her emotion becomes disruptive, and causes her to disregard reality, even when there are obvious cues present (Step 2). Usually, she does not distort reality when this happens, but simply disregards the cues in it, and responds to it by giving way to her strong feelings. Actually, she is no more prone to distort reality than are most people (Step 3, Finding 1) and usually, when distortions occur, they are prompted by strong negative feelings, especially anger (Step 3a, Finding 2).

When her feelings are not overly intense, she will usually respond in expected or acceptable

ways in situations where the cues for those responses are obvious (Step 4, Finding 1). However, she is not very influenced by social demands or expectations, and often forms behaviors that tend to disregard or ignore issues of social convention (Step 6, Finding 4). This is not because she is rebellious or asocial in her view of the world but, rather, because she is so wrapped up in herself and the struggles she is having with her emotions.

Ideation

As noted earlier, she is the sort of person who relies considerably on her feelings when forming concepts or making judgments. She likes to use external feedback and is inclined to engage in trial-and-error behaviors when searching for solutions to problems. The fact that she merges her

Case 15. Ideation Variables for a 31-Year-Old Female.

L = 0.18	OBS = No	HVI = No	Critical Special Scores (R = 26)
EB = 4:7.0	EBPer = 1.8	a:p = 1:11 Ma:Mp = 1:3	DV = 0 DV2 = 0 INC = 3 INC2 = 0 DR = 4 DR2 = 1 FAB = 0 FAB2 = 0 ALOG = 0 CON = 0 Sum6 = 8 WSum6 = 24
eb = 8:11	[FM = 4 m = 4]	M- = 0 Mnone = 0	
Intell Indx = 10	MOR = 6		

M Response Features

- I 2. Do Mao Hd AB,DR,PHR
 I 3. Ddo Mp.FV- Ad DR2,PER,PHR
 III 7. D+ Mpo 2 (A),Art,Hh 3.0 COP,GHR
 VII 18. D+ Mp.FYo 2 (Hd),Art P 3.0 DR,COP,GHR

feelings with her thinking does often give rise to more complex patterns of thinking, but there is no reason to believe that her thinking will be illogical or inconsistent. Many adults have this sort of intuitive style, and it can be very effective if not clouded excessively by emotions (Step 1, Finding 3). It is also important to reaffirm that she does not seem to be inflexible about this style, and circumstances will exist when she pushes feelings aside and relies on a more ideational approach in forming a decision (Step 2, Finding 2).

On the other hand, her attitudes and values seem to be very well fixed and not very flexible (Step 3, Finding 3). People like this find it difficult to alter their attitudes or opinions. This is especially important because of the pessimism with which she regards herself. It is very pervasive in her thinking (Step 4, Finding 3), and causes her to conceptualize her relations with the world with a sense of doubt and skepticism. This breeds thinking that is narrow and concrete, and often causes flawed logic to be disregarded. The situation is made more complicated by the previously mentioned fact that she is experiencing a great deal of peripheral or subconscious ideation that tends to interfere with her attention and concentration (Step 5, Finding 4). Although much of this is being caused by situationally related stress, it undoubtedly reduces the clarity of some of her thinking.

Adding to the problem is a marked tendency to drift into fantasy as a way of avoiding unpleasant situations. She does this excessively and, although some immediate relief is achieved, the long-term result is often counterproductive to her own needs (Step 6, Finding 2). Her strong inclination to intellectualize emotion or emotional situations, which was noted earlier, is probably even more counterproductive to her well-being. It is a self-deceptive process that increases her vulnerability to flawed logic and forces her to deny feelings that occur within her (Step 7, Finding 2). These complex defenses have resulted in patterns of thinking that are often conceptually impaired and which, in turn, interfere with her reality testing (Step 8, Finding 5). Her thinking is not bizarre, but notice-

able for bad judgment. It is transparently marked by her struggles to deny or conceal the magnitude of her distress and her inability to direct her thinking more adaptively (Step 9, Finding 2). At times, her thinking becomes loose, and peculiarly inappropriate (Step 10, Finding 2). She is obviously intelligent, but seems unable to focus her intellect in ways that contend effectively with her own needs and desires (Step 11).

CASE 15 DESCRIPTION AND RECOMMENDATIONS

This woman has a long standing major depressive problem. Moreover, she has many of the features common to those who are at high-risk for self-destructive behaviors, and this issue should be explored expeditiously. It is easy to understand how the potential for suicide behavior may not be obvious. She has developed a very elaborate bundling of defenses that are like those of the hysteroid person. They enable her to avoid and deny direct confrontations with her feelings and, superficially, deceive others about the magnitude of her distress and disorganization. More recently, those defenses have failed to contend very well with her miseries, and this has probably led to the onset of her frequent incidents of anxiety and occasional bouts of acknowledged depression.

Currently, her defenses appear to be failing even more frequently. This has resulted in the experience of much stress and has increased her vulnerability to disorganization. The cause for this is not completely clear, but is most attributable to the fact that her condition has gradually intensified over a lengthy period. It has probably been exacerbated by her son's problems, plus the fact that physical examinations have not provided any confirmation to the contention that her difficulties have a physiological basis. Regardless of the cause, she is in considerable distress, and seems to have developed a marked sense of futility about her situation. She is a very lonely person who has strong unmet needs for emotional closeness, and she also engages in considerable rumination about herself

in which she focuses mainly on features of herself that she regards to be liabilities.

Ordinarily, she merges her emotions with her thinking when making decisions. People like this are intuitive, and rely on their feelings when forming judgments. They are disposed to engage in trial-and-error behaviors to test out postulates and assumptions, and are not very concerned about making errors. They usually display their feelings openly, and are less concerned than others about carefully controlling those displays. She does not appear to be inflexible about the use of this approach, and instances will occur when she puts her feelings aside in favor of a more ideational strategy. Nonetheless, when intuitively oriented people experience affect related problems, as is now the case, the impact is often quite intense.

Even though she usually relies on feelings when making judgments, she also has a marked tendency to avoid emotional stimulation, probably because she has become fearful of them. She appears to be uncomfortable with emotion, and is likely to be socially constrained. This is very unusual for an intuitive person, and probably reflects her considerable turmoil. She is accustomed to using some important defenses to contend with emotional situations that she perceives as threatening. The most important of these is intellectualization. She regularly attempts to neutralize the impact of feelings by dealing with them on an ideational rather than emotional level. It is a tactic that conceals or denies feelings, thereby reducing the likelihood that they will be dealt with directly or realistically. It is probable that this process has contributed significantly to her avoidance of more involvement in treatment during the past year.

A second tactic that she uses is even more likely to interfere with good adjustment. It is a form of denial in which positive emotions are attributed to unpleasant emotional situations. It is a hysteroid process that involves a disregard or bending of reality to avoid dealing with the perceived harshness of a situation. It is self-deceiving, and often transparent. Nonetheless, it probably has permitted her to minimize conscious

acknowledgment of the severity of her distress. Another tactic that she often employs is a tendency to drift into fantasy as a way of avoiding unpleasant situations. She does this excessively and, although some immediate relief is achieved, the long-term result is often counterproductive to her needs.

Historically, her capacity for control and her tolerance for stress have been adequate, and may actually have been sturdier than many people. She has reasonably good psychological resources available to her, and they have probably served her well in avoiding a more extensive disorganization in the past. Unfortunately, her control capacities and stress tolerance have been reduced considerably by her current situation. Her sense of futility interferes markedly with her customary patterns of thinking and behavior, and she is now quite vulnerable to disorganization. She has some problems in controlling her feelings effectively and, at times, she becomes overly intense and may even convey impressions of impulsiveness. Although she usually tries to conceal the intensity of her feelings by intellectualizing, she is also likely to become very oppositional, in subtle ways, when confronted with unwanted challenges. Psychologically, she is much more complex than usual because of her situation, and often becomes confused by, or uncertain about feelings.

Her estimate of her own personal worth is generally quite negative. She ruminates a great deal about herself, and her self-image has become noticeable for negative attributions. She regards herself as damaged, useless, and suffering from the hurts that have been imposed upon her. This very pessimistic view has gradually led to a sense of hopelessness. Her sense of self is quite unreal, although she does harbor a vague sense of optimism that things might change for the better. However, this also seems unreal because it is conveyed in an overly intellectualized manner that emphasizes the imaginary, and tends to disregard reality.

In interpersonal situations she is likely to assume a passive, but not necessarily submissive, role. She apparently prefers to avoid responsibility

for decisions. This passivity is a long-standing characteristic. As noted earlier, she has very strong needs for emotional closeness, and probably feels very lonely. These are intense feelings that can easily cloud many of her judgments. She has reported a reasonably stable marriage, but that report seems questionable and should be explored more extensively.

She seems interested in people, but she does not understand them very well. This often leads to blunders that will alienate others and, overall, her interpersonal behaviors are less adaptive than might be desired. In spite of this, she seems to harbor a naive notion that interactions with others will be positive. In reality, she seems to be socially isolated and probably finds it difficult to sustain smooth and meaningful relationships. Much of this is caused by the fact that she tends to assume a more artificial role in many of her interactions.

Her cognitive functioning is less impaired than might be expected. She makes a reasonable effort to process information, but also strives to be economical when doing so, and sometimes becomes overly involved with more minute or unusual details. Although her scanning efficiency is adequate, the end product of her processing is overly conservative and often less than adequate. This occurs most when she is confronted with complex emotional situations. She translates information appropriately, and there is no reason to suspect that this aspect of her reality testing is impaired. However, at times, the intensity of her emotion becomes disruptive, and causes her to disregard reality, even when there are obvious cues present. When her feelings are not overly intense, she will usually respond in expected or acceptable ways, but she is not very influenced by social demands or expectations, and often forms behaviors that tend to disregard or ignore issues of social convention. This is not rebelliousness, but occurs because she is so wrapped up in herself and the struggles she is having with her emotions.

Her attitudes and values seem to be very well fixed and not very flexible. People like this find it difficult to alter their attitudes or opinions. This

contributes to a sustained pessimism which is very pervasive in her thinking, and causes her to conceptualize her relations with the world with doubt and skepticism. It breeds thinking that is narrow and concrete, and often causes flawed logic to be accepted readily. The situation is compounded by the fact that she is experiencing a great deal of subconscious ideation that tends to interfere with her attention and concentration, and reduces the clarity of some of her thinking.

Her defenses create a kind of conceptual impairment in her thinking which does interfere with her reality testing at times. Her thinking is not bizarre, but noticeable for bad judgment. It is transparently marked by her struggles to deny the magnitude of her distress, and her inability to direct her thinking more adaptively. As a result, her thinking sometimes becomes loose and peculiar. She is obviously intelligent, but is unable to use her intellect in ways that contend effectively with her own needs and desires.

Issues and Recommendations

The anxiety attacks for which she has sought treatment appear to be direct products of the underlying depression that has plagued her for a lengthy period. They represent breakdowns of the defenses that she has relied on for some time to contain and/or conceal (from herself and others) the severity of her emotional turmoil. There is also a reasonable possibility that her marital relationship is much less stable or satisfying than seems implied. At the moment, she seems on the verge of a more horrific disorganization, and the risk of self-destructive behavior appears to be substantial and should be explored quickly and carefully.

Usually a person in this much distress will profit most in an inpatient setting. That circumstance provides the opportunity for considerable support and reassurance. It also offers a controlled setting in which a pharmacological routine can be established and monitored, and a psychotherapeutic model can be selected and initiated. Hospitalization need not be lengthy, but

should include strategies that will permit a careful evaluation of the marital situation. Finally, she will probably not be an easy patient to work with. Her defenses, although tending to falter now, have served her well for many years, and it will probably be difficult to entice her into the sorts of emotional sharing that will be critically important early in the approach to intervention.

Case 16

This 28-year-old male was admitted to an emergency ward at a county psychiatric hospital at approximately 3 A.M., after having been discovered in a disheveled and disoriented state by a deputy sheriff. He was wearing no shirt or shoes although the temperature was about 40 degrees. He did have a wallet with ID, but could not identify himself. He remained disoriented for approximately 18 hours, but began to become oriented the next evening after a visit by his parents and older brother. He was transferred to a private psychiatric hospital the next day. When admitted there, his state was described as calm and cooperative, although detached from the proceedings. Laboratory analyzes completed on the third day after admission showed a toxic level for cocaine. The analyzes were repeated six days later and, although cocaine residuals were present, there was no evidence of toxicity. Psychological assessment was completed on the 10th day after admission, and the 12th day after his arrest.

He is the second of four sons. His oldest brother, age 31, has been married six years and works as an electronics designer. His younger brothers are age 26, a veterinary school student, and age 21, a senior in college. Both are single. His father, age 63, is an architect. His mother, age 58, is also a college graduate. She taught elementary school during the first four years after being married, but has not worked outside of the home for the past 30 years. The only reported psychiatric history in the immediate family is that the mother was in psychotherapy for about two years for depression, when she was in her early 40s.

The subject is a building contractor, owning a small firm specializing in the construction and repair of

houses. He has done this for about four years after having graduated with a BA degree in English, and then working for his father for two years. His father gave him the money to organize his business, which is described as marginally successful. His father and oldest brother say that he doesn't put in a lot of effort. The family is aware of his drug abuse, but are not aware that it has been as extensive as he indicates. He says that he uses drugs regularly, "but I usually don't overdo it." He states that he began smoking marijuana during high school, and began using more potent drugs during college.

He reports that while working for his father he was drug free, but the father says that is not true, noting that his son was in a drug rehabilitation program for two weeks during his second year of employment. The patient admits that, "I'll try anything once, but I like cocaine best." He also uses amphetamines sometimes, "because of the work pressure."

He says that he was engaged to a 30-year-old woman two years ago, but ended their relationship after learning that she was routinely unfaithful. He has recently become engaged to a 20-year-old college dropout, and they have been planning to be married soon. She is living in his apartment and he has talked to her by phone, but he is upset because she has not visited him. He objects to any notion that he might be "crazy," and wants to be released as soon as detoxification is complete, "so I can get back to work." His parents, and staff who have interviewed him, raise questions about a more serious disturbance. His brother notes that he has been "a loner" for quite some time, has neglected his business, and has talked in very paranoid ways about others in his business who are trying to ruin him.

The referral asks: (1) whether the drug abuse conceals a more serious psychiatric problem, (2) about the possibility of schizophreniform disorder as contrasted with a drug induced psychosis, (3) whether serious depression may be present, (4) whether he poses a risk to himself, and (5) for specific treatment recommendations.

Case 16. A 28-Year-Old Male.

Card	Response	Inquiry
I	<p>Its j an inkblot ldk wht it ll E: Tak ur tim evryone can find st there</p> <p>1. Ok it cb a creepy knd of insect</p> <p>2. If u made a circl around thse white prts it cb a jack-o-lantrn</p> <p>3. It cb a map of an undiscoverd land tht no ones evr seen bfore</p> <p>v4. Oh this way it cb an entranc to a tunnel This is realy boring u kno I can keep lkg at it all day & find lots of thgs but its realy borg</p> <p>II 5. This is a sad fac at th botom th eyes r sad anyway</p> <p>6. Ths up hre ll 2 ppl spitg at eo c th spit is flyg btwn thm</p> <p>III 7. This grim lik lungs or st lik cancerous</p> <p>v8. Now this way it lks exactly lik a black widow spidr caus thres th hourglass on her belly & hres th arms & th head its mayb not th whol real thg but lik an artists rendition of it</p>	<p>E: (Rpts S's resp) S: J this prt th jaws wb up hre & th body & th wgs out hre (traces) E: U said it was creepy S: I guess ppl call em creepy I nevr likd em ths for sur</p> <p>E: (Rpts S's resp) S: Wei it doesnt ll tht now u have to mak it lik ths (traces circle) thn it wb lik a pumpkin w th eyes & th mouth j ignore th rest</p> <p>E: (Rpts S's resp) S: All of it it cb tht if no one evr saw it thn it cld really b mayb lik Atlantis but I dont recog it I dont mean Atlantis but st lik tht tht no body knows abt</p> <p>E: (Rpts S's resp) S: Rite hre c this is th mt & this is th entranc to th tunnel c its litr around it too thts wht makes it ll a tunnel (traces mt & tunnel entrance)</p> <p>E: (Rpts S's resp) S: Its rite hre (traces) it ll a frown as a mattr of fact u kno thy hav thos masks frm drama well ths ll th sad one c how it goes dwn on th sides</p> <p>E: (Rpts S's resp) S: Its j heads of ppl no body thr hre & hre c th nose & th mouths & c hres th spit in betwa thm</p> <p>E: (Rpts S's resp) S: J hre its really lik sick lik whn u smok too much ur lungs turn all bick lik ths lik thy hav cancer or som othr kind of lung disease</p> <p>E: Im not sur I kno whr thy r S: C one hre & hre & this is lik th conectg tissue</p> <p>E: (Rpts S's resp) S: Well its not all thr j th head & th prt of th body & th arms & th hourglass & ths 2 red marks out hre thyr thre bec she kills her mate aftr th birth of her young but th rest is whit whr it shld b black & thts why its an artists rendition its not all done yet</p>

(continued)

Case 16. Continued.

Card	Response	Inquiry
IV	I dont c anthg hre its nothg but anothr inkblot E: Tak ur time	
	9. Mayb a great gigantus erectorus w a tiny head & great arms	E: (Rpts S's resp) S: A tiny head w a huge proboscis stickg out in frnt of him thr th arms (points) kind of lik flapg mayb its a great seaweed monster lik th Lochness one w a big tail & huge flappers hre (traces) & th tiny head I thk thres a book wrtn abt him
V	10. Its lik split open st som kd of animal mayb a rabbit	E: (Rpts S's resp) S: Its j equal on both sides w th cut dwn th midl & thse cb legs & paws & th ears up hre j divided lik by a meat clever or st
v11.	Mayb a bf too not lik its flyg but lik in a museum mounted c all th colors r faded	E: (Rpts S's resp) S: Th colrs r all fades its j shads of grey thr was a species of gypsy moth lik ths I thk I dont rem or mayb a pepper moth ldk j big wgs out hre & th antennae
VI	ldk wht ths is its vry interesig but I j dont kno ...	
12.	This must b th 1 evryone says ll fuckg but ldk its not quite tht mayb I j dont thk ... not quite	E: (Rpts S's resp) S: Oh yeah I dont kno abt ths onc thrs a vagina path hre (traces) w a penis hre (traces) I gues it cb lik fuckg
v13.	This prt cb a diamond cutter	E: (Rpts S's resp) S: Well I thk thyr lik tht yes lik a long needle or st thts wht thy use to cut diamonds with its som k o cutter c (traces)
VII	14. Its a broken cookie its one of thos cookies w a hol in it thy ll a daisy thts wht it is thyr good w milk	E: (Rpts S's resp) S: Ok if u put th pieces back toghr it wb round w th hol in th cntr but probably so took a bit out of it yeah a sunshine buttr cooki hres th hol & th pieces tht r left

VIII Oh som colrs thts nice

v15. Ths way it ll a person pullg som othr ppl
mayb th lord pullg his sons back to heaven
w th colorful lite raditating arond

E: (Rpts S's resp)

S: Only one son th Lord had only one son I didnt say sons c hre w th arms outstrtd & th lite ovr his head

E: Im afraid I dont c it help me

S: Lk up hre c ths is th lite radiatg & hre is th Lord (traces) c th arms & dwn hre is th son th legs r apart & its lik hes being pulld upward (traces) u hav to use som imagination u kno

IX Ths is evn bettr w th primary colrs

v16. An atomic explosion w a mushroom cld at
th top all flashg upward vry brite
lik . . . wht card is ths (turns card
ovr) . . . Oh nine

E: (Rpts S's resp)

S: Yes its vry lik it c th mushroom cld (points) & th brilliant orange flash at th base lik th fireball before it forms

X 17. Ths is lik an artists work whn hes bored
lik he j blottd som color on a piece of papr
in fact ths thg is all borg its a stupid
boring test I told u evrythg I kno abt
inkblots on th first card

E: (Rpts S's resp)

S: Its j a bunch of colrs lik sb j blobd thm on thr lik mayb an artist cld do whn he was thkg Ive seen alot of artists & thr work & stimes thy do ths

v18. I can c so doing a backflip into a pool of
watr hre lik a diving contest cause thts
whn thy do th backflips

E: (Rpts S's resp)

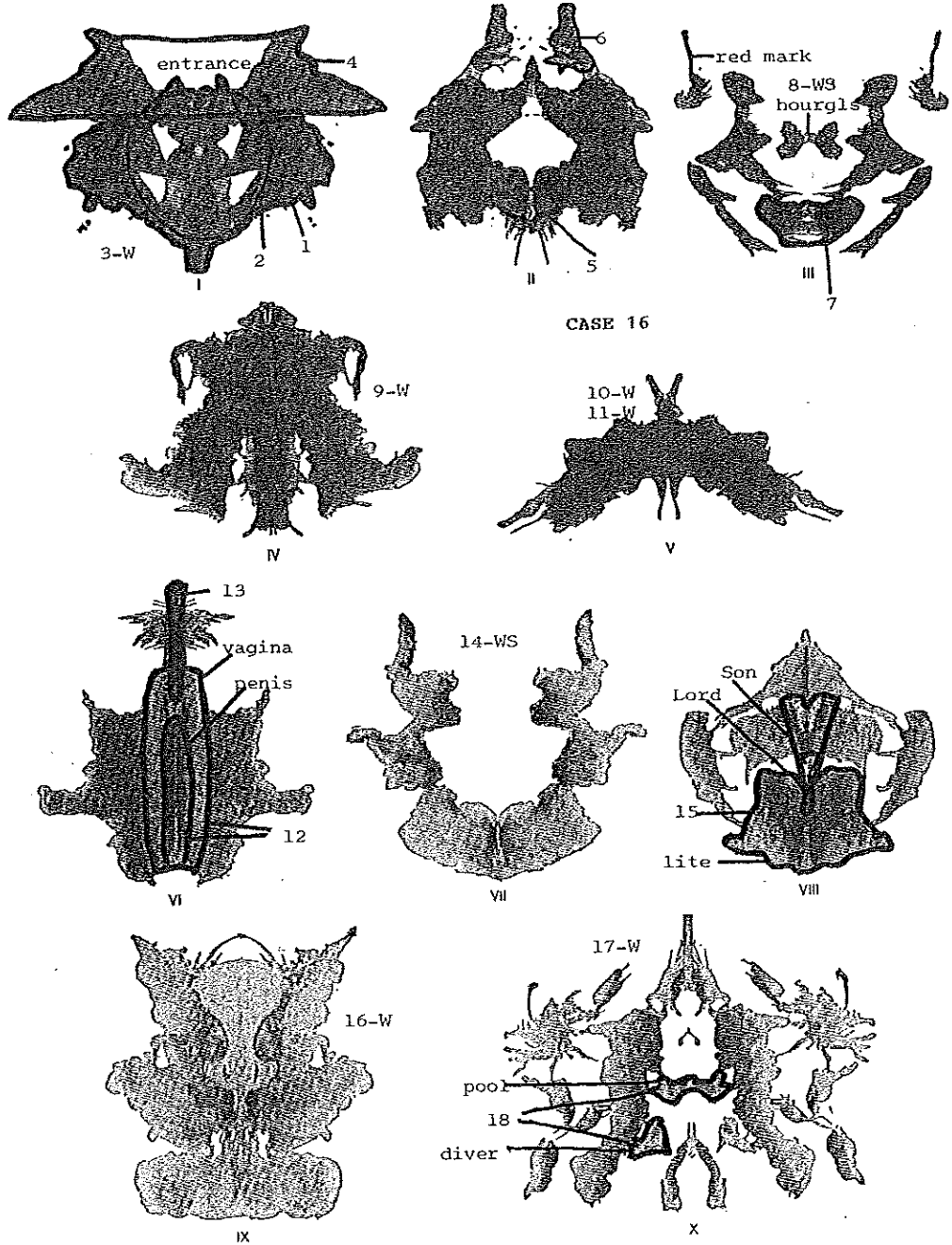
S: Ths is really stupid u kno ok last one right

E: Yes

S: Well hre she is or he is whtvr it cb either but usually girls do th backflip thr backs r built bettr for it

E: I dont thk I c it lik u do help me

S: Lk its rite hre c th arm out & th body is bent backward (traces) u cant c th face too well tho & dwn hre th blu its th watr watr is blue u kno



Case 16. Sequence of Scores.

Card	No.	Loc.	No.	Determinant(s)	(2)	Content(s)	Pop	Z	Special Scores
I	1	Ddo	99	Fu		A			
	2	DdSo	99	F-		(Hd)		3.5	PHR
	3	Wv	1	Fu		Ge			DR2
	4	DdS/	99	FVu		Ls		4.0	
II	5	Ddo	99	Mp-		Hd			MOR,PHR
	6	Dd+	99	Ma.mp-	2	Hd		5.5	AG,PHR
III	7	Do	7	FC'-		An			MOR
	8	WS+	1	FC'.C-	2	Ad,Art		5.5	AB,INC
IV	9	Wo	1	FMa.FDo		(A)		2.0	DV
V	10	Wo	1	F-		A		1.0	MOR
	11	Wo	1	mp.FYo		A	P	1.0	MOR
VI	12	Dd+	99	Ma-		Hd,Sx		2.5	DV,PHR
	13	Do	2	Fu		Sc			
VII	14	WS+	1	F-		Fd		4.0	MOR
VIII	15	Dd+	99	Ma.mp.CF-		(H),Na,Ay		3.0	DR,PHR
IX	16	W+	1	ma.CFo		Ex,Fi,Cl		5.5	
X	17	Wv	1	C		Art			PER
	18	D+	2	Ma.C-		H,Na		4.5	ALOG,PHR

i.

Case 16. Structural Summary.									
Location Features		Determinants		Contents		S-Constellation			
		Blends	Single						
				H = 1		No ... FV+VF+V+FD>2			
				(H) = 1		Yes ... Col-Shd Bl>0			
Zf = 12		M.m	M = 2	Hd = 3		Yes ... Ego<.31>.44			
ZSum = 42.0		FC'.C	FM = 0	(Hd) = 1		Yes ... MOR>3			
ZESt = 38.0		FM.FD	m = 0	Hx = 0		Yes ... Zd>+3.5			
		m.FY	FC = 0	A = 3		No ... es>EA			
W = 8		M.m.CF	CF = 0	(A) = 1		Yes ... CF+C>FC			
D = 3		m.CF	C = 1	Ad = 1		Yes ... X+%<.70			
W+D = 11		M.C	Cn = 0	(Ad) = 0		Yes ... S>3			
Dd = 7			FC' = 1	An = 1		Yes ... P<3 or>8			
S = 4			C'F = 0	Art = 2		Yes ... Pure H<2			
			C' = 0	Ay = 1		No ... R<17			
			FT = 0	Bl = 0		9 ... Total			
			TF = 0	Bt = 0		Special Scores			
DQ			T = 0	Cg = 0			Lv1	Lv2	
+ = 7			FV = 1	Cl = 1		DV	=2x1	0x2	
o = 8			VF = 0	Ex = 1		INC	=1x2	0x4	
v/+ = 1			V = 0	Fd = 1		DR	=1x3	1x6	
v = 2			FY = 0	Fi = 1		FAB	=0x4	0x7	
			YF = 0	Ge = 1		ALOG	=1x5		
			Y = 0	Hh = 0		CON	=0x7		
			Fr = 0	Ls = 1		Raw Sum6	= 6		
			rF = 0	Na = 2		Wgtd Sum6	=18		
			FD = 0	Sc = 1		AB	=0	GHR = 0	
			F = 6	Sx = 1		AG	=1	PHR = 6	
				Xy = 0		COP	=0	MOR = 5	
				Id = 0		CP	=0	PER = 1	
								PSV = 0	
(2) = 2									
Ratios, Percentages, and Derivations									
R = 18		L = 0.50		FC:CF+C	=0:5	COP=0	AG=1		
				Pure C	=3	GHR:PHR	=0:6		
EB = 5:6.5	EA = 11.5		EBPer = N/A	SumC':WSumC	=2:6.5	a:p	=6:4		
eb = 5:4	es = 9		D = 0	Afr	=0.29	Food	=1		
	Adj es = 6		Adj D = +2	S	=4	SumT	=0		
				Blends:R	=7:18	Human Cont	=6		
FM=1	C' = 2	T = 0		CP	=0	Pure H	=1		
m = 4	V = 1	Y = 1				PER	=1		
						Iso Indx	=0.44		
a:p	=6:4	Sum6 = 6	XA% = 0.39	Zf = 12.0		3r+(2)/R	=0.11		
Ma:Mp	=4:1	Lv2 = 1	WDA% = 0.45	W:D:Dd = 8:3:7		Fr+rF	=0		
2AB+Art+Ay = 5		WSum6 = 18	X-% = 0.56	W:M = 8:5		SumV	=1		
Mor = 6		M- = 5	S- = 3	Zd = +4.0		FD	=1		
		Mnone = 0	P = 1	PSV = 0		An+Xy	=1		
			X+% = 0.17	DQ+ = 7		MOR	=5		
			Xu% = 0.22	DQv = 2		H:(H)+Hd+(Hd)	=1:5		
PTI=4*	DEPI=6*	CDI=4*	S-CON=9*	HVI=No		OBS=No			

The first positive Key variable is that the PTI value is greater than three. Accordingly, the cluster review will begin with processing, and then proceed to the other two clusters in the cognitive triad. They will be followed by reviews of the data concerning controls, affect, self-perception, and interpersonal perception. However, before addressing the processing data, the finding for the S-CON should be noted.

S-CON

The positive S-CON value indicates that he has features similar to those found in persons who effect their death within a relatively short time after taking the test. The referral raises a question about self-risk, possibly because of the circumstances in which he was found. Regardless of what other information is available concerning self-risk, this finding should be emphasized, and probably afforded considerable weight when reviewing his demand to be released from hospitalization as soon as possible.

Processing

He makes a reasonable effort to process new information (Step 1, Finding 1), but his approach tends to be irregular and inefficient. He frequently focuses on the minutia of a field and ignores obvious cues (Step 2, Finding 2c), but is not consistent about this. The irregularity of his approach suggests psychological disarray (Step 3, Finding 2). At the same time, he tries to scan very thoroughly, apparently to avoid being careless (Step 5, Finding 3). This can be an asset for people, but in this instance it is probably more of a liability because it implies a sense of uncertainty. The quality of his processing falters considerably at times (Step 7, Finding 2), and this can have an important impact on his other cognitive activities. It is inconsistent, and raises questions about whether the general disarray noted may have a neurological basis, or may relate to a more chronic cognitive disturbance (Step 8).

Case 16. Processing Variables for a 28-Year-Old Male.

EB = 5:6.5	Zf = 12	Zd = +4.0	DQ+ = 6
L = 0.50	W:D:Dd = 8:3:7	PSV = 1	DQv/+ = 0
HVI = NO	W:M = 8:5		DQv = 1
OBS = NO			

Location & Dq Sequencing

I: DDo.DdSo.Wv.DdSv/+	VI: Dd+.Do
II: Ddo.Dd+	VII: WS+
III: Do.WS+	VIII: Dd+
IV: Wo	IX: W+
V: Wo.Wo	X: Wv.D+

Case 16. Mediation Variables for a 28-Year-Old Male.

R = 18	L = 0.50	OBS = No	Minus & NoForm Features
FQx+ = 0	XA% = .39	I 2. DdSo F- (Hd) 3.5 PHR	
FQxo = 3	WDA% = .45	II 5. Ddo Mp- Hd MOR,PHR	
FQxu = 4	X-% = .56	II 6. Dd+ Ma.mp- 2 Hd 5.5 AG,PHR	
FQx- = 10	S- = 3	III 7. Do FC'- An MOR	
FQxnone = 1		III 8. WS+ FC'.C- 2 Ad, Art 5.5 AB,INC	
(W+D = 11)	P = 1	V 10. Wo F- A 1.0 MOR	
WD+ = 0	X+% = .17	VI 12. Dd+ Ma- Hd,Sx 2.5 DV,PHR	
WDo = 3	Xu% = .22	VII 14. WS+ F- Fd 4.0 MOR	
WDu = 2		VIII 15. Dd+ Ma.mp.CF- (H),Na,Ay 3.0 DR,PHR	
WD- = 5		X 17. Wv C Art PER	
WDnone = 1		X 18. D+ Ma.C- H,Na 4.5 ALOG,PHR	

Mediation

The manner in which he translates information is markedly impaired. This impairment seems to be global, and occurs frequently, regardless of how obvious cues may be. Impairments of this magnitude sharply limit reality testing, and usually occur when there is an active and disabling psychotic-like process (Step 1, Finding 7). This dysfunction seems to be very pervasive and clearly limits the extent to which adequate adjustment can be expected (Step 3, Finding 5).

Some of this turmoil appears to be related to a serious thinking problem, and an unusual preoccupation with people. However, affective difficulties also contribute significantly, and the end product is a massive sort of disarray that

creates the potential for very ineffective or inappropriate behaviors (Steps 3a and 3b).

Even when very obvious cues exist, it is very unlikely that he will follow those cues in his own conduct (Step 4, Finding 3). His impairment makes it very difficult for him to identify things in a conventional or appropriate manner (Step 6, Finding 4). In effect, his reality is internal and this leads him to routinely ignore or distort the external realities with which he is confronted.

Ideation

He does not engage in decision making in a consistent manner. At times, he pushes feelings aside and attempts to address issues logically but, in other instances, he relies on his feelings to direct

Case 16. Ideation Variables for a 28-Year-Old Male.

L	= 0.50	OBS	= No	HVI	= No	Critical Special Scores (R = 18)	
						DV = 2	DV2 = 0
EB	= 5:6.5	EBPer	= NA	a:p = 6:4		INC = 1	INC2 = 0
				Ma:Mp = 4:1		DR = 1	DR2 = 1
eb	= 5:4	[FM = 1 m = 4]		M- = 5		FAB = 0	FAB2 = 0
				Mnone = 0		ALOG = 1	CON = 0
Intell Indx = 5		MOR	= 5			Sum6 = 6	WSum6 = 18

M Response Features

- II 5. Ddo Mp- Hd MOR,PHR
- II 6. Dd+ Ma.mp- 2 Hd 5.5 AG,PHR
- VI 12. Dd+ Ma- Hd,Sx 2.5 DV,PHR
- VIII 15. Dd+ Ma.mp.CF- (H),Na,Ay 3.0 DR,PHR
- X 18. D+ Ma.C- H,Na 4.5 ALOG,PHR

Case 16. Control-Related Variables for a 28-Year-Old Male.

EB = 5:6.5	EA = 11.5		D = 0	CDI = 4
eb = 5:4	es = 9	Adj es = 6	AdjD = +2	L = 0.50
FM = 1 m = 4	SumC' = 2	SumT = 0	SumV = 1	SumY = 1

his judgments and decisions. Neither approach is very efficient for him, and this creates an added burden when dealing with the demands of everyday living (Step 1, Finding 5). A pessimistic set marks much of his thinking, and probably intrudes into most of his cognitive activities. It creates a sense of doubt and the expectation of failure that cannot help but have a significant impact on how he conceptualizes things (Step 4, Finding 3).

He may act hastily to gratify his needs and avoid the added ideational burdens that they can create. However, situational stresses that he is currently experiencing appear to be causing more ideational activity than is customary for him (Step 5, Finding 1). He tries to intellectualize unwanted feelings more often than do most people, and this causes him to be more vulnerable to forming or accepting distorted concepts (Step 7, Finding 1). Overall, his thinking appears to be seriously disturbed. It tends to be disorganized, inconsistent, and marked by flawed judgments (Step 8, Finding 5). It is disjointed and impulsive at times, and impairs his reality testing considerably (Step 9). Some of this impairment seems related to his distorted conceptions of the world and people in it (Step 10). He is probably an intelligent person, but unable to apply his intellect in consistent and effective ways (Step 11).

Controls

His capacity for control and tolerance for stress are usually sturdy (Step 1, Finding 3). Currently, he is experiencing more stress than usual which has reduced his typical capacity for control to some extent (Situational Stress, Step 2, Finding 2). Nonetheless, his capacity for control remains adequate. The stress probably relates to his hospitalization, but also may include a sense of guilt or remorse about his recent actions (Step 5, Finding 5). It is impacting mainly on his ideation and appears to have created a sense of helplessness (Situational Stress, Step 3, Finding 2).

He has adequate psychological resources (Step 2, Finding 2), but it is likely that he is less mature than might be expected. This can cause some interpersonal difficulties that may impact on his controls at times (CDI is positive). Apparently, he does not experience needs in typical ways, or he may act on them more rapidly than is the case for most people (Step 5, Finding 3). He also has a tendency to try and suppress the release of feelings (Step 5, Finding 4).

Affect

He is in a state of emotional disarray which is probably marked by many features that are common to depression. This problem, which seems to

Case 16. Affect-Related Data for a 28-Year-Old Male.

EB = 5:6.5		EBPer = NA	Blends
eb = 5:4	L = 0.50	FC:CF+C = 0:5	M.m.CF = 1
DEPI = 6	CDI = 4	Pure C = 3	M.C = 1
			M.m = 1
C' = 2 T = 0		SumC':SumC = 2:6.5	FM.FD = 1
V = 1 Y = 1		Afr = 0.29	m.CF = 1
			M.FY = 1
			FC'.C = 1
Intellect = 5	CP = 0	S = 4 (S to I,II,III = 3)	
Blends:R = 7:18		Col-Shad Bl = 1	
m + y Bl = 3		Shading Bl = 0	

Case 16. Self-Perception Related Data for a 28-Year-Old Male.

R	= 18	OBS	= No	HVI = No	Human Content, An & Xy Responses
Fr + rF	= 0	3r + (2)/R	= 0.11		I 2. DdSo F- (Hd) 3.5 PHR
FD	= 1	SumV	= 1		II 5. Ddo Mp- Hd MOR,PHR
An + Xy	= 1	MOR	= 5		II 6. Dd+ Ma.mp- 2 Hd 5.5 AG,PHR
					VI 12. Dd+ Ma- Hd,Sx 2.5 DV,PHR
					VIII 15. Ma.mp.CF- (H),Na,Ay 3.0 DR,PHR
					X 18. D+ Ma.C- H,Na 4.5 ALOG,PHR
H:(H) + Hd + (Hd) = 1:5					
[EB = 5:6.5]					

be long-standing, has probably been created by a pervasive difficulty that he has in creating and sustaining effective and rewarding interpersonal relations (Step 1, Finding 3). It makes him vulnerable to disappointment, distress, and even despair, and these unwanted feelings are readily exacerbated by the cognitive difficulties that have been discovered earlier. As noted earlier, he is not very consistent in his approach to decision making, and this includes a lack of consistency in the way in which he uses and/or displays feelings (Step 2, Finding 8).

He is not very comfortable dealing with emotion, and has a noticeable tendency to avoid emotional stimulation (Step 6, Finding 4). People with this characteristic often find it difficult to engage in the normal emotional exchanges that are common to social interaction and, as a result, their relationships are usually more superficial. He is also inclined to deal with feelings on a more intellectual level, and this form of denial tends to conceal the true meaning or impact of his feelings (Step 7, Finding 1). The situation is made more difficult because he is very lax in the manner by which he expresses feelings (Step 9, Finding 10). They often manifest in ways that are overly intense and, sometimes, may seem impulsive. That impression is probably incorrect because he has adequate controls. Instead, he does not test reality very well, and often gives way to feelings that should be modulated more carefully. These seeming lapses in control are not immature gestures but, rather, the product of very poor judgments (Step 10).

He is a rather angry person, and this affects his attitudes toward the environment and his social relationships (Step 11, Finding 4). He is a very complex person (Step 12, Finding 3), much of which seems to be caused by the situation in which he now finds himself (Step 13), and it is increased by a confusion that he has about emotions and emotional situations (Step 15, Finding 2).

Self-Perception

His estimate of his personal worth is very negative, and he regards himself very unfavorably when making comparisons with others (Step 3, Finding 3). He seems involved in self-examining behavior somewhat routinely, but much of this focuses on perceived negative features, and generates painful feelings for him (Step 4, Finding 3). Generally, his overall self-concept is marked by many negative attributions (Step 6, Finding 2). Actually, his impressions of himself are probably based largely on imagination or distortions of his experiences (Step 7a, Finding 2b). The latter appear to be very extensive, and are likely to create considerable confusion for him about his own capabilities (Step 7b).

He seems to be acutely aware that he is in considerable psychological difficulty, and harbors a markedly pessimistic view of himself (Steps 8a and 8b, responses 5, 7, 8, 10, 11, and 14). His very limited reality testing only serves to heighten his confusion about himself and the sense of helplessness that he harbors (Steps 8c, 8d, and 8e, responses 1, 3, 5, 7, 11, 14, 15).

Case 16. Interpersonal Perception Data for a 28-Year-Old Male.

R	= 18	CDI	= 4	HVI	= No	COP & AG RESPONSES
a:p	= 6:4	SumT	= 1	Fd	= 1	II 6. Dd+ Ma.mp- 2 Hd 5.5 AG,PHR
		[eb	= 5:4]	H	= 1	
Sum Human Contents	= 6					
[Style = Ambitent]						
GHR:PHR	= 0:6					
COP	= 0	AG	= 1	PER	= 1	
Isolation Indx	= 0.44					

Interpersonal Perception

He is very limited in social skills (Step 1), and his interpersonal behaviors are likely to be marked by ineptness and naivety. His relations with others are probably superficial and difficult for him to sustain. He seems oriented to be somewhat dependent on others (Step 4) and, like most people, experiences needs to be emotionally close to others (Step 5, Finding 1). He is clearly interested in people, but does not understand them very well (Step 6, Finding 2). It is likely that he frequently misinterprets social situations, and can easily alienate others because of this (Step 7, Finding 2). He probably does not feel very comfortable with people, and may be perceived by them as being more distant or aloof (Step 8, Finding 1). Thus, in spite of his interest in others, he seems to be much more interpersonally isolated than he would prefer (Step 10, Finding 2). His poor reality testing and his limited social skills make for a kind of social confusion and disarray in which he is quite vulnerable to the manipulations of others.

CASE 16 DESCRIPTION AND RECOMMENDATIONS

This man is seriously disturbed. His reality testing is markedly impaired, and the impairment seems to be global. He distorts reality frequently, regardless of how obvious cues for appropriate behaviors may be. Impairments of this magnitude

usually occur when there is a disabling psychotic-like process present. The turmoil that he is experiencing involves his thinking, his relations with people, and includes serious affective difficulties. The end product is a massive sort of disarray that creates the potential for very ineffective or inappropriate behaviors.

Currently, he has features similar to those found in persons who effect their own death, and this issue should be afforded considerable weight when considering his demand to be released from hospitalization as soon as possible. His impairment makes it very difficult for him to identify things in a conventional or appropriate manner. In effect, his reality is based much more internally, rather than on external factors, and this leads him to routinely ignore or distort the external realities with which he is confronted.

Even under the best of circumstances, he does not approach decision making in a consistent manner. At times, he pushes feelings aside and attempts to address issues logically. In other instances, he relies considerably on his feelings to direct his judgments and decisions. Neither approach is very efficient and adds to his burdens of dealing with the demands of everyday living. His thinking is pessimistic, and promotes a sense of doubt and an expectation of failure that cannot help but have a significant impact on how he conceptualizes things.

Currently, he is experiencing considerable situational stress, and this is causing even more

ideational confusion than is customary for him which, in turn, exacerbates his impairment. He tries to intellectualize unwanted feelings and this causes him to be more vulnerable to forming or accepting distorted concepts. Overall, his thinking is disorganized, inconsistent, and marked by very flawed judgments. It is disjointed and impulsive at times, and this contributes to the formation of a very distorted view of the world and people in it. He makes a reasonable effort to process new information, but his approach tends to be irregular and inefficient, and he frequently becomes focused on the minutia of a field while ignoring obvious cues. He tries to scan new fields very thoroughly, apparently to avoid being careless, but the quality of his processing often falters rather badly, and this adds to his cognitive difficulties. His capacity for control and tolerance for stress are usually sturdy, and remain adequate in spite of the current stress that he is experiencing. The stress is likely related to his hospitalization, but also may include a sense of remorse about his recent actions. It has created a sense of helplessness within him.

His emotional disarray includes many features that are common to depression. This problem seems to be long standing, and relates mainly to a pervasive difficulty that he has in creating and sustaining effective interpersonal relations. He has become vulnerable to disappointment, distress, and despair. He tries to avoid emotional stimulation when possible, but this only adds to his internal and external problems. He is inclined to deal with feelings on a more intellectual level, and this form of denial adds to the distortions that mark his thinking.

His situation is made more difficult by the very lax manner by which he expresses feelings. They often manifest in ways that are overly intense, usually because of his very poor judgment. He is a rather angry person, and this affects his attitudes toward the environment and his social relationships. Usually, he is not a very complex person, but has become so because of the situation in which he now finds himself. This

complexity is also increased by a confusion that he often experiences about his feelings. He regards himself quite negatively, and is involved in self-examining behavior somewhat routinely in which he focuses on his negative features. This generates very painful feelings for him. Many of the negative attributions that mark his self-concept are probably based largely on imagination or distortions of his experiences, but some are likely to stem from an acute awareness of his disturbance. The end product is considerable confusion about his own capabilities, and this contributes to a chronic pessimistic view of himself. His limited reality testing only serves to heighten this confusion, and adds to his sense of helplessness.

He has very limited social skills, and his interpersonal behaviors are likely to be marked by ineptness and naivety. His relations with others are probably superficial and difficult to sustain. He seems oriented to be somewhat dependent on others and, like most people, he experiences the need to be emotionally close to others. He is interested in people, but does not understand them very well, and it is likely that he frequently misinterprets social situations. He can easily alienate others because of this. As a result, he does not feel very comfortable with people, and seems to be much more interpersonally isolated than he would prefer. Unfortunately, his poor reality testing contributes significantly to this situation.

Issues and Recommendations

The referral asks whether the drug problem conceals a more serious disorder. It seems reasonably certain that this is true. He has many characteristics that are commensurate with a schizophreniform disorder, and also has a significant, long-standing, affective problem. He appears to be markedly depressed, and the antecedents of the depression are directly linked to episodes of disappointment and distress that occur because of problems in the interpersonal sphere. Added

history information, especially about his behaviors during the past two or three years, should provide diagnostic clarity.

Regardless of the diagnosis, it is very important to note that he has many features that are similar to those found among people who effect suicide. Prompt intervention concerning this issue is of paramount importance. Beyond that immediate issue, the matter of treatment becomes more complex. He seems unlikely to readily accept the magnitude or severity of his disorder, and considerable time probably will be required to entice him into a treatment regimen that will lead to more effective functioning than has been the case. His drug abuse has probably been an important form of self-medicating, while enhancing his tendencies to ignore or distort reality. This is not a tactic that he will relinquish easily and, thus, relatively long-term inpatient care seems to be the most reasonable option.

Case 17

This 12-year-old female was evaluated because of an inconsistent pattern of achievement in the fifth and sixth grades. She was passed into the sixth grade after consultation with the parents and school administrators, and with the agreement that she would receive tutorial assistance during the summer following the completion of the fifth grade year. Her performance during the first two months in the sixth grade was very good, but has noticeably declined during the last three months. Her sixth grade teacher says that she seems to be diligent in her effort, but also often seems detached from the routines of the classroom and makes many careless mistakes when completing tests or assignments. During the past three weeks, she has been working one hour per day with a teaching assistant (mainly in arithmetic and spelling), but no obvious improvement has been noticed regarding her motivation, or her work quality.

Her father, age 41, is an electrical engineer who has worked for the same firm for the past 12 years. The mother, age 36, is a librarian, working full time in the public library system. They express much concern regarding their daughter's performance, and have been

cooperative with teachers and school administrators in planning for tutorial assistance. The subject is the oldest of two children. Her brother, age 6, is currently in the first grade and progressing satisfactorily. The parents report a normal development history, except that she is nearsighted and began wearing corrective glasses when she was in the third grade. They deny any problems in the home and report that she eagerly participates in home chores. Both children remain in school for about one hour after classes are dismissed, until they are collected by the mother when she finishes her work. It is part of an "after care" program for children of families in which both parents work.

The fifth and sixth grade teachers report that it is very difficult to sustain any motivation in the subject. They also note that she does not relate very well to peers. According to the fifth grade teacher, an effort was made to involve her more with peers, but each relationship that was formed was not sustained. The parents admit that their daughter has no close friendships, and attribute this mainly to the fact that they live in an area in which there are few other young children. The mother reports that she has attempted to get her daughter interested in swimming lessons, but that because of her poor vision she has a marked fearfulness of the water.

The subject claims that she works hard in school, but does not understand the material "very well." She also implies that she has to read more slowly than the other students and, "they get ahead of me sometimes." She says that she does not like the tutoring sessions, "I just don't like math." She claims that she gets along well with other children, and says that she likes to work in groups on special projects. The sixth grade teacher says this is not true. She reports that when the subject is involved in a group assignment, she is very quiet and passive, and reluctant to accept any responsibilities.

The subject admits that she would prefer to spend most of her time watching television rather than doing assignments, and identifies the most "fun" part of school as being those times when television programs are used for educational purposes, or when she can work alone on a computer. She has asked her parents for a computer and, apparently, they have agreed to purchase one at the end of the school year, provided that her grades are satisfactory. She says that she likes her teacher, but sometimes does not understand what she is attempting to explain. She expresses concern that she

might be placed in a special class, "kids that have to do that are the dumb ones, I'm sure I can do okay if everybody just stops worrying about it."

The examiner, a female, describes her as a thin girl with obviously thick glasses, who looks a bit younger than her stated age. Intelligence test data reveal a verbal IQ of 105; Performance IQ of 101; and a Full Scale IQ of 103. There is no significant scatter among the subtests which range from 9 to 12. Her performance on a reading comprehension test places her at a sixth grade level. A complete physical examination, completed three weeks prior to the evaluation, is

essentially negative except for the visual difficulties. The consulting ophthalmologist has suggested that her eyesight may improve as she grows older, but for the moment she is markedly nearsighted.

The assessment issues posed ask about: (1) any evidence of a significant emotional or psychiatric problem that might account for the motivational problem, (2) any evidence of some form of passive aggressive personality style, and (3) recommendations concerning strategies to increase her motivation for academic work and/or intervention suggestions that might be implemented in the school.

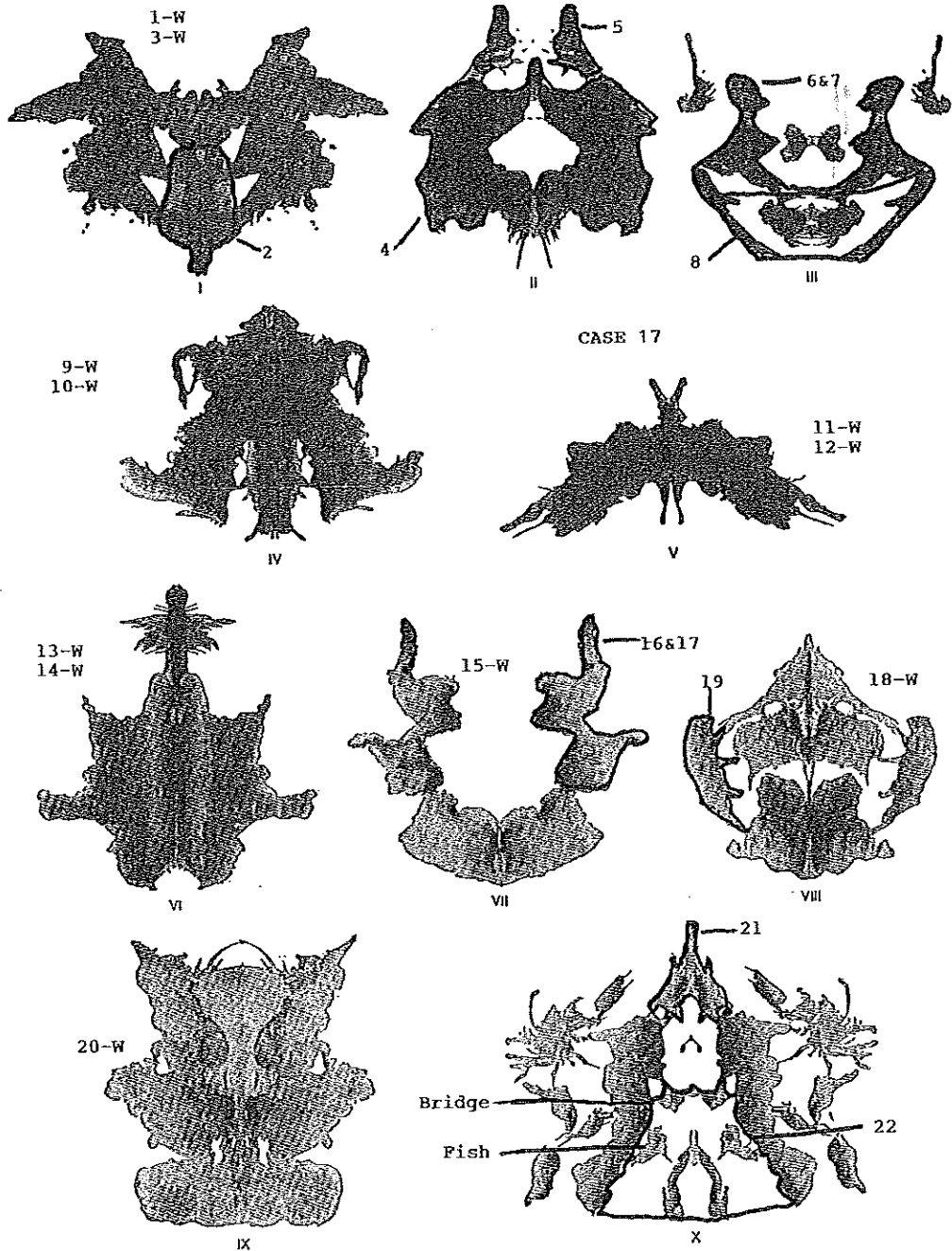
Case 17. A 12-Year-Old Female.

Card Response	Inquiry
I 1. An insect?	E: Rpts S's resp S: Here w wgs & stuff, & the hands E: Hands? S: Up here (D1) thes ll hands E: U said its an insect? S: Mayb a spider & theres antennae too out on the sides (points to Dd28) E: Tak ur time & look som more, I thk u'll find smthg else too
2. A dress	E: Rpts S's resp S: Covr these (points to D2) then this here (Dd24) ll that, lik a dress E: I'm not sur wht maks it ll tht S: I dkno, it just has tht shape, lik a dress or
3. A person w wgs	E: Rpts S's resp S: It ll a person, the legs & the arms up in the air lik waving I guess & thes (D2) wb the wgs E: U said waving? S: Yes, her arms r up here (points) lik waving
II 4. Bears	E: Rpts S's resp S: Just their heads, their ears & necks, thyrv got their noses togethr, I thk u say nuzzeling when thy do tht, c their ears & necks
5. The top ll bf's	E: Rpts S's resp S: These 2 prts (D2) lik a bf if u lookd fr the side, lik it's got its wgs up, lik its flyg, u can really only c the wgs & the littl nose, lik fr the side, a side view
III 6. 2 ppl leang on a table or sofa or mayb	E: Rpts S's resp S: These r the ppl, their legs & heads, lik two wm & ths is the sofa, lik thyr bendg ovr it, leaning on it
7. Sb fting, 2 ppl fting ovr smthg	E: Rpts S's resp S: C the ppl r the same, but wht I said for a sofa is now smthg else, smthg tht each wants & thyr pullg on it, tryg to get it fr the other one, it's not very nice to look at it lik ths
v8. Ths way an insect	E: Rpts S's resp S: It has big eyes, thes r his legs & he is tryg to crawl or reach out for smthg E: I'm nor sur I c it rite S: Just the arms & the face of it, u can't really c the rest of it, mayb a spider

(continued)

Case 17. Continued.	
Card Response	Inquiry
IV I don't c nothin	E: Take ur time, everybody can c st
9. A doll.mayb	E: Rpts S's resp S: Well, it has feet, & the body & hands but u can't c thm too well cuz she's got a coat on, it's on a stand lik thy hav for dolls E: U said she's got a coat on? S: It's lik a fur coat tht goes up ovr her head too E: I'm not sur why it ll a fur coat S: It just does, the lines ll all furry
	or
10. A creature	E: Rpts S's resp S: He has boots on, a big creature, sittg on a stool, with a littl head & scrawny arms, he's all furry too, lik the one fr the swamp or smwhe, he's scary lookg E: U say he's furry too S: Just lik the coat on the doll
V 11. Mayb a bat	E: Rpts S's resp S: The wgs, the ears, the feet & a tail
	or
12. A bf	E: Rpts S's resp S: The same, the wgs, antennacs, & a tail
VI v13. A flowr mayb	E: Rpts S's resp S: All ths (DI) wb the flowr & dwn here (D3) is the stem E: I'm not sur why it ll a flwr S: It just does, the flower & the stem
14. Ths way a bf flyg ovr the ground	E: Rpts S's resp S: Ths prt (D3) ll a bf & ths here (DI) is the land, its ovr the land E: Ovr the land? S: Yes, c the wgs out here & the body & way dwn below is the land E: I'm not sur why it ll its way dwn below S: I dkno, it looks further away, lower than the bf
VII 15. 2 ppl dancg	E: Rpts S's resp S: Lik their hands r out but thyv got their heads turned around, lookg at co. lik a Hawaiian dance, these r lik their skirts, hula skirts dwn here (Dd23) & thyv got their hair combed way up

16. If u don't look at the btm its 2 bunnies
or
17. Mayb 2 Indians
- VIII 18. Bears climb a tree in the forest
19. If u don't look at the tree thy cb
dinosaurs
- IX 20. A dragon's face
- X 21. Insects r eatg ths
22. Mayb a lake w a bridge & som fish
- E: Rpts S's resp
S: Thes wb their ears, faces, tails, & their body
- E: Rpts S's resp
S: Thyv got feathers & thy ll thyr disagreeing about st
E: Disagreeing?
S: U know how ppl r when thy say thgs & thy look at ea others faces when thy argue, mean lookg, lik thy don't agree about smthg & thyr arguing
- E: Rpts S's resp
S: Here r the bears, thy hav legs & tails & faces & ths is the tree, ths is a trunk & leaves
E: U said in the forest
S: This where bears live
- E: Rpts S's resp
S: What I said for bears before, thy cb dinosaurs
E: Wht makes thm ll tht?
S: Well, bc dinosaurs hav long tails lik ths & their legs & faces
- E: Rpts S's resp
S: It just does, his big ears & littl white eyes (*DdS29*), & big cheeks, lik he's puffing out smoke
E: Puffing out smoke?
S: Ths prt dwn here (*D6*) ll it cld b smok, lik dragons puff out smoke
E: What maks it ll smoke?
S: Its round lik a puff of smoke
- E: Rpts S's resp
S: These ll insects & this ll a tree & thyr just lik chewg on it, thyv got their legs up on it & it ll thyr eatg off of it
E: I'm not sur wht maks thm ll insects
S: Their littl legs & thyv got antennae
- E: Rpts S's resp
S: Ths cb a lake (lower *DdS30*) & ths (*D6*) is a bridge at the end of the lake
E: At the end?
S: It's furthr dwn the lake, lik at the end
E: U said thyr fishes?
S: Ths (*D2*) cb fishes & mayb ths (*D10*) is lik ss of eel
E: Wht maks thm ll fishes & an eel?
S: The fishes hav fins & the eel is long, eels r long



Case 17. Sequence of Scores.

Card	No.	Loc.	No.	Determinant(s)	(2)	Content(s)	Pop	Z	Special Scores
I	1	Wo	1	F-		A		1.0	INC
	2	Ddo	24	Fu		Cg			
	3	Wo	1	Mao		H		1.0	INC,PHR
II	4	D+	6	FMpo	2	Ad	P	3.0	COP,GHR
	5	Do	2	FMa.FDo	2	A			
III	6	D+	1	Mpo	2	H,Hh	P	3.0	GHR
	7	D+	1	Mao	2	H,Id	P	3.0	AG,PSV,GHR
	8	Ddo	99	FMa-		Ad			INC
IV	9	W+	1	FT.mpo		(H),Id,Cg	P	4.0	GHR
	10	W+	1	Mp.FTo		(H),Hh,Cg	P	4.0	GHR
V	11	Wo	1	Fo		A	P	1.0	
	12	Wo	1	Fo		A	P	1.0	PSV
VI	13	Wo	1	Fu		Bt		2.5	
	14	W+	1	FMa.FDu		A,Ls		2.5	
VII	15	W+	1	Mao	2	H,Cg	P	2.5	COP,GHR
	16	Do	2	Fo	2	A			
	17	D+	2	Mao	2	H,Cg	P	3.0	AG,GHR
VIII	18	W+	1	FMao	2	A,Bt	P	4.5	
	19	Do	1	Fu	2	A,Ay			
IX	20	WS+	1	FC'.FMau		(Ad),Fi		5.5	
X	21	D+	11	FMao	2	A,Bt,Fd		4.0	
	22	DdS+	99	FD-		A,Sc,Na		6.0	

Case 17. Structural Summary.

Location Features	Determinants		Contents	S-Constellation
	Blends	Single		
				... FV+VF+V+FD>2
				... Col-Shd Bl>0
Zf = 17	FT.m	M = 5	H = 5	... Ego<.31,>.44
ZSum=51.5	M.FT	FM = 5	(H) = 2	... MOR>3
ZEst = 56.0	FM.FD	m = 0	Hd = 0	... Zd>+-3.5
	FM.FD	FC = 0	(Hd) = 0	... es>EA
W = 11	FC'.FM	CF = 0	Hx = 0	... CF+C>FC
D = 8		C = 0	A = 10	... X+%<.70
W+D=19		Cn = 0	(A) = 0	... S>3
Dd = 3		FC' = 0	Ad = 2	... P<3 or>8
S = 2		C'F = 0	(Ad) = 1	... Pure H<2
		C' = 0	An = 0	... R<17
		FT = 0	Art = 0	x ... Total
		TF = 0	Ay = 1	
		T = 0	Bl = 0	Special Scores
DQ			Bt = 3	Lv1 Lv2
+ = 12			Cg = 5	DV =0x1 0x2
o = 10			Cl = 0	INC =3x2 0x4
v/+ = 0			Ex = 0	DR =0x3 0x6
v = 0			Fd = 1	FAB =0x4 0x7
			Fi = 1	ALOG =0x5
			Ge = 0	CON =0x7
			Hh = 2	Raw Sum6 = 3
			Ls = 1	Wgtd Sum6 = 6
			Na = 1	
			Sc = 1	AB =0 GHR=7
			Sx = 0	AG =2 PHR=1
			Xy = 0	COP =2 MOR=0
			Id = 2	CP =0 PER=0
				PSV =2
		(2) =10		
Form Quality				
	FQx	MQual	W+D	
+ = 0	=0	= 0	rF = 0	
o =14	=6	=14	FD = 1	
u = 5	=0	= 4	F = 7	
- = 3	=0	= 1		
none = 0	=0	= 0		
Ratios, Percentages, and Derivations				
R =22	L =0.47		FC:CF+C =0:0	COP=2 AG= 2
			Pure C =0	GHR:PHR = 7:1
EB =6:0.0	EA =6.0	EBPer=6.0	SumC':WSumC =1:0.0	a:p =10:4
eb =8:3	es =11	D =-1	Afr =0.29	Food = 1
	Adj es =11	Adj D =-1	S =2	SumT = 2
			Blends:R =5:22	Human Cont= 7
FM=7	C' = 1	T = 2	CP =0	Pure H = 5
m =1	V = 0	Y = 0		PER = 0
				Iso Indx = 0.27
a:p =10:4	Sum6 = 3	XA% =0.86	Zf =17.0	3r+(2)/R = 0.45
Ma:Mp = 4:2	Lv2 = 0	WDA%=0.95	W:D:Dd=11:8:3	Fr+rF = 0
2AB+Art+Ay= 1	WSum6 = 6	X-% =0.14	W:M =11:6	SumV = 0
Mor = 0	M- = 0	S- =1	Zd =-4.5	FD = 3
	Mnone = 0	P =10	PSV = 2	An+Xy = 0
		X+% =0.64	DQ+ =12	MOR = 0
		Xu% =0.23	DQv = 0	H:(H)+Hd+(Hd)= 5:2
PTI=0	DEPI=2	CDI=3	S-CON=N/A	HVI=No
				OBS=No

The interpretation of a protocol from a younger person follows the same principles and routines that are used for the records of adults. Attention must be afforded to age adjustments that have been established for some variables but, generally, most of the critical values applicable to adult protocols are also applicable to those of younger persons. Thus, in many instances, the findings will yield the same sorts of postulates or conclusions. The critical issue for the interpreter is whether the finding identifies a liability, or whether it reflects a characteristic common to those of a similar age.

For instance, the presence of multiple pure *C* responses in the protocol of an adult are usually regarded as indicating a serious liability, because they reflect loose control over emotions and/or emotional displays. However, this is a common finding among younger children, and loose emotional controls are typical among that group. Likewise, when an avoidant style is indicated in the protocol of an adult, it is not regarded very favorably most of the time because the person may ignore or simplify complexity too much. An avoidant style in the protocol of a preadolescent child is not uncommon and, ordinarily, does not carry the same negative weighting that would be considered for an adult. Young children often find it difficult to deal with complexity, and have a natural orientation to simplify. It becomes a liability when carried to excess.

Data concerning nonpatient children, from age 5 to 16, are included in the Appendix, but they should not be applied rigidly or unrealistically when addressing the record of a youngster. It is probably much more important for the interpreter to have a good understanding of developmental

psychology, and the characteristics that are common among children of the various ages. It is especially important for interpreters to have an appreciation for the broad range of individual differences that exist among preadolescent children, within given age groups.

The first positive Key variable for Case 17 is that the Adjusted Score is in the minus range. It requires that the interpretation begin with a review of the data regarding controls, but it does not identify the remainder of the search order. That is done from the next positive Key variable which, in this instance, is an introversive *EB*. This suggests that the interpretation should proceed by reviewing the cognitive triad, beginning with ideation, and then moving on to affect, self-perception, and interpersonal perception.

Controls

The data suggest that she is in a chronic overload state, and that her capacity for control and ability to deal with stress are less than might be expected (Step 1, Finding 1). As a consequence, some of her decisions may not be well thought through, and a proclivity for impulsiveness exists, even though she appears to have as much psychological resource available as most 12 year olds (Step 2, Finding 1). However, both of these findings are probably misleading. She is investing considerable energy in a massive containment of her emotions (Step 3, Finding 6). Usually, this requires the use of more resource than a person typically will have available, and results in a vulnerability to overload and disorganization. It is true that her current capacity for control is fragile, but her actual resources may be more extensive than indicated.

Case 17. Control-Related Variables for a 12-Year-Old Female.

EB = 6: 0	EA = 6.0		D = -1	CDI = 3
eb = 8: 3	es = 11	Adj es = 11	AdjD = -1	L = 0.47
FM = 7 m = 1	SumC' = 1	SumT = 2	SumV = 0	SumY = 0

Case 17. Ideation Variables for a 12-Year-Old Female.

L	= 0.47	OBS	= No	HVI	= No	Critical Special Scores (R = 22)	
						DV = 0	DV2 = 0
EB	= 6:0	EBPer	= 6.0	a:p	= 10:4	INC = 3	INC2 = 0
				Ma:Mp	= 4:2	DR = 0	DR2 = 0
eb	= 8:3	[FM = 7	m = 1]			FAB = 0	FAB2 = 0
				M--	= 0	ALOG = 0	CON = 0
Intell Indx = 1		MOR	= 0	Mnone	= 0	Sum6 = 3	WSum6 = 6

M Response Features

- I 3. Wo Mao H 1.0 INC,PHR
 III 6. D+ Mpo 2 H,Hh P 3.0 GHR
 III 7. D+ Mao 2 H,Id P 3.0 AG,PSV,GHR
 IV 10. W+ Mp.FTo (H),Hh,Cg P 4.0 GHR
 VII 15. W+ Mao 2 H,Cg 2 H, Cg P 2.5 COP,GHR
 VII 17. D+ Mao 2 H,Cg P 3.0 AG,GHR

It is inappropriate to speculate further about these issues until findings from other clusters have been reviewed.

Ideation

She seems to be a very ideational youngster who likes to delay and think things through before coming to a decision or implementing a behavior (Step 1, Finding 1). She relies much more on internal evaluations than external feedback. This style of decision making is somewhat unusual for a 12-year-old, but not necessarily detrimental. However, it does become detrimental when applied inflexibly, as is the case here (Step 2, Finding 1). She is very resistive about allowing her feelings to influence her thinking, and this can be a significant liability in situations when a more intuitive, trial-and-error approach to addressing a problem may be much more preferable. This lack of flexibility is directly related to the excessive containment of emotions noted

earlier, and probably contributes to some of her academic difficulties.

Her attitudes and values are reasonably well fixed, and probably difficult to alter (Step 3, Finding 2). She also appears to be affected by unmet needs more extensively than is common. As a result, she has considerable peripheral or subconscious mental activity ongoing. This can be distracting, and interferes with her attention and concentration (Step 5, Finding 3). It is another factor that probably contributes to her academic problems. There does not appear to be any reason to question the clarity of her thinking (Step 8, Finding 1a). As with most people, and especially children, she does experience occasional cognitive slips, but there is no evidence that they are excessive, marked by bizarreness, or are tainted by some unusual immature thinking (Step 9, Finding 1). Actually, her thinking is as mature, and possibly more so, as is typical for a 12-year-old.

Case 17. Processing Variables for a 12-Year-Old Female.

EB = 6:0	Zf = 17	Zd = -4.5	DQ+ = 12
L = 0.47	W:D:Dd = 11:8:3	PSV = 2	DQv/+ = 0
HVI = NO	W:M = 11:6		DQv = 0
OBS = NO			

Location & DQ Sequencing

I: Wo.Ddo.Wo	VI: Wo.W+
II: D+.Do	VII: W+.Do.D+
III: D+.D+.Ddo	VIII: W+.Do
IV: W+.W+	IX: WS+
V: Wo.W.	X: D+.DdS+

Processing

She invests much more effort to process information than might be expected (Step 1, Finding 1 and Step 2, Finding 2a). Generally, she seems consistent in her orientation to make sure that she does not miss anything (Step 3, Finding 1) but, in doing so, she often strives to accomplish more than may be reasonable. This increases the possibility of failure, and can easily lead to frustration (Step 4, Finding 1). That possibility is increased substantially by the fact that she scans information somewhat hastily and haphazardly (Step 5, Finding 2). In effect, she hurries too much when dealing with information. This is common among younger children, but can be a significant liability for an older child. She also seems to have some difficulty shifting her attention (Step 6, Finding

2). This may be a byproduct of her struggles to contain her feelings, but also could result from her strong incentive to avoid errors.

In spite of the difficulties mentioned above, the quality of her processing is usually very good, and more complex than would be expected for someone of her age (Step 7, Finding 3, Step 8).

Mediation

She usually translates cues concerning new information quite appropriately (Step 1, Finding 1). She does not falter in doing so any more than most people (Step 3, Finding 1). When she does distort reality, it is usually caused by a preoccupation with her own adequacy (Step 3a, Finding 6), but these are not severe or bizarre (Step 3b). In fact, she seems to have an unusual preoccupation for

Case 17. Mediation Variables for a 12-Year-Old Female.

R = 22	L = 0.47	OBS = No	Minus & NoForm Features
FQx+ = 0	XA% = .86		I 1. Wo F- A 1.0 INC
FQxo = 14	WDA% = .95		III 8. Ddo FMa- Ad INC
FQxu = 5	X-% = .14		X 22. DdS+ FD- A,Sc,Na 6.0
FQx- = 3	S- = 1		
FQxnone = 0			
(W+D = 19)	P = 10		
WD+ = 0	X+% = .64		
WDo = 14	Xu% = .23		
WDu = 4			
WD- = 1			
WDnone = 0			

Case 17. Affect-Related Data for a 12-Year-Old Female.

EB	= 6:0		EBPer	= 6.0	Blends
eb	= 8:3	L = 0.47	FC:CF+C	= 0:0	M.FT = 1
DEPI	= 2	CDI = 3	Pure C	= 0	FM.FD = 2
					FC'.FM = 1
C' = 1	T = 2		SumC':SumC	= 4:3.5	FT.m = 1
V = 0	Y = 0		Afr	= 0.29	
Intellect	= 1	CP = 0	S = 2 (S to I,II,III = 0)		
Blends:R	= 5:22		Col-Shad Bl	= 0	
m + y Bl	= 1		Shading Bl	= 0	

correctness, and is overly concerned with correct or acceptable behaviors (Step 4, Finding 2). At the same time, she often gives way to her own individuality, and is inclined to behaviors that disregard social demands or expectations (Step 6, Finding 3). This seems a bit incongruous, and may represent a subtle way of ignoring or rebelling against a world that she perceives to be excessively demanding on her.

Affect

As noted earlier, she commits a great deal of effort to insure that her emotions are stringently concealed and controlled (Step 2, Finding 3). This is unusual for anyone, but especially for a child. It is an uncomfortable and disconcerting situation that can impact on almost all psychological functioning. If it persists over a long period, as may be the case here, it interferes with processing and can cloud thinking. As the suppressed feelings intensify, there is an increased likelihood that they will ultimately force decisions and behaviors that

are not necessarily logical or realistic. As mentioned earlier, this sort of constraint also limits flexibility in decision making (Step 3, Finding 3).

She seems to be an emotionally needy child, who has a noticeable sense of loneliness. However, it is very likely that she does not convey this very directly. This is because she is so uncomfortable with emotion and tries hard to avoid or conceal it (Step 6, Finding 4). Children like this typically are fearful about their feelings, and they often avoid many of the everyday emotional exchanges that contribute to development. At the moment, her psychology is not very complex because of the massive constraint of her emotions (Step 12, Finding 2).

Self-Perception

She does not seem to be any more or less self-involved than most children of her age, but she probably is inclined to regard herself somewhat less favorably than most others (Step 3, Finding 3). She engages in considerable self-examining

Case 17. Self-Perception Related Data for a 12-Year-Old Female.

R	= 22	OBS	= No	HVI = No	Human Content, An & Xy Responses
Fr + rF	= 0	3r + (2)/R	= 0.45	I 3.	Wo Mao H 1.0 INC,PHR
FD	= 3	SumV	= 0	III 6.	D+ Mpo 2 H,Hh P 3.0 COP,GHR
An + Xy	= 0	MOR	= 0	III 7.	D+ Mao 2 H,Id P 3.0 AG,PSV,PHR
				IV 9.	W+ FT.mpo (H),Id,Cg P 4.0 GHR
				IV 10.	W+ Mp.FTo (H),Hh,Cg P 4.0 GHR
				VII 15.	W+ Mao 2 H,Cg P 2.5 COP,GHR
				VII 17.	D+ Mao 2 H,Cg P 3.0 AG,GHR
H:(H) + Hd + (Hd)	= 5:2				
[EB = 6:0]					

Case 17. Interpersonal Perception Data for a 12-Year-Old Female.

R	=22	CDI = 3	HVI = No	COP & AG RESPONSES
a:p	= 4:2	SumT = 2	Fd = 1	II 4. D+ FMao 2 Ad P 3.0 COP,GHR
		[eb = 8:3]	H = 5	III 7. D+ Mao 2 H,Id P 3.0 AG,PSV,GHR
Sum Human Contents = 7				VII 15. W+ Mao 2 H,Cg P 2.5 COP,GHR
[Style = Introversive]				VII 17. D+ Mao 2 H,Cg P 3.0 AG,GHR
GHR:PHR	= 7:1			
COP	= 2	AG = 2	PER = 0	
Isolation Indx	= 0.27			

behavior, which is uncommon for youngsters of her age (Step 4, Finding 3). This could reflect a striving for self-betterment but, more likely, it reflects a sense of dissatisfaction with herself. Her self-image tends to be based more on social experience than imagination (Step 7, Finding 1). There are, however, hints that her self-image may include some notions of being isolated and unwanted (Step 8a, responses 1 & 8), and she is probably not as comfortable with herself as she would prefer (Step 8c, responses 3, 7, 9, & 17). There are also hints that she is more concerned with concealing and/or protecting herself than usually is typical for a 12-year-old (Step 8e, responses 2, 9, 10, & 14).

Interpersonal Perception

As is common for children, she is inclined to be dependent on others for direction and support (Step 4). She expects others to be willing to act in accord with her needs, but this may not be happening. She has strong needs for emotional closeness, and probably feels lonely (Step 5, Finding 3). Typically, children who feel like this are at a loss about how best to achieve close relations with others, and often regard themselves as being ignored or rejected. She is quite interested in people and probably conceptualizes them in a fairly realistic way (Step 6, Finding 1). Generally, many of her social behaviors are likely to be adaptive for the situation (Step 7, Finding 1), but she also seems confused about how to sustain rewarding social exchanges (Step 8, Finding 4). She is interested in

positive interactions, but is often prone to be more forceful or aggressive in her relations. This can easily cause other children to avoid or ignore her. The end result is that she probably has become reluctant to be involved in social intercourse routinely (Step 10, Finding 1), and she may respond to peers in an inconsistent manner. At times, she may seek to be overly close and, in other instances, she may be more forceful than is reasonable for the situation.

CASE 17 DESCRIPTION AND RECOMMENDATIONS

For reasons that are not completely clear, this 12-year-old is investing considerable energy in a massive containment of her emotions. Usually, this requires more resource than a person typically will have available, and the result is a vulnerability to overload and disorganization. Currently, she is in an overload state, and her capacity for control and ability to deal with stress are less than usual, even though she probably has considerable resource for one of her age. The overload state, plus her fragile control capacities, creates a potential for some of her decisions to be not well thought out, and creates a proclivity for impulsiveness.

She seems to be a very ideational youngster who likes to delay and think things through before coming to a decision or implementing a behavior, and she relies much more on internal evaluations than external feedback. This style of decision making is somewhat unusual for a 12-year-old, but

not necessarily detrimental. However, it does become detrimental when applied inflexibly, as is the case here, because of her unusual resistance to dealing with her feelings directly. This lack of flexibility contributes to some of her academic difficulties.

Her attitudes and values are reasonably well fixed, and probably difficult to alter. She also appears to be affected much more by unmet needs than is common. As a result, she has considerably more mental activity ongoing than should be the case. This is distracting, and tends to interfere with her attention and concentration. It is another factor that contributes to her academic problems. There does not appear to be any reason to question the clarity of her thinking. As with most children, she does experience occasional cognitive slips, but there is no evidence that they are excessive, or marked by bizarreness, and there is no reason to believe that her thinking is unusually immature. Actually, her thinking is as mature, if not more so, as would be expected for a 12-year-old.

She makes a considerable effort to process information, more than expected for one of her age. She seems committed to making sure that she does not miss anything but, in doing so, she often strives to accomplish more than may be reasonable. This increases the likelihood of failure, and breeds frustration. That possibility is increased substantially by the fact that she scans information somewhat hastily and haphazardly. Whether this relates to her visual problems is uncertain, but seems unlikely. In effect, she hurries when dealing with information, and this is a significant liability for her. She also has some difficulty shifting her attention. This may be a byproduct of her struggles to contain her feelings, but also could result from her strong incentive to avoid errors. In spite of these difficulties, the quality of her processing is usually very good, and more complex than expected for someone of her age.

She usually handles new information appropriately, and has no more problems with reality testing than most 12-year-olds. If she does distort

reality, it is usually caused by a preoccupation with her own adequacy, but these distortions are not severe or bizarre. In fact, she has an unusual preoccupation for correctness, and seems overly concerned with making acceptable responses. At the same time, she often gives way to her own needs and wants, and sometimes will disregard social demands or expectations. This may represent a subtle way of ignoring or rebelling against a world that she perceives to be excessively demanding on her.

As noted earlier, she commits a great deal of effort to insure that her emotions are stringently concealed and controlled. It is an uncomfortable and disconcerting situation, especially for a child, and can impact on almost all of her psychological functioning. If it persists over a lengthy time, as may be the case here, it can interfere with the manner by which she handles information, and can cloud her thinking. As the suppressed feelings intensify, there is an increased likelihood that they will ultimately force decisions and behaviors that are not logical or realistic.

She seems to be an emotionally needy child, who has a noticeable sense of loneliness. However, it is very likely that she does not convey this very directly. This is because she is so uncomfortable with emotion and probably fearful of it. Children like this often avoid many of the everyday emotional exchanges that contribute to development. She seems inclined to regard herself somewhat less favorably than most others, and is quite introspective. This is very uncommon for youngsters of her age. It could relate to a striving for self-betterment but, more likely, it reflects a sense of dissatisfaction with herself. Her self-image tends to be based more on experience than imagination, and there are strong hints that she perceives herself as being isolated and unwanted. Clearly, she is not as comfortable with herself as she would prefer.

There are also hints that she is more concerned with concealing and/or protecting herself than is typical for a 12-year-old, even though she would like to be dependent on others for direction and

support. Unfortunately, this does not seem to be happening, and this situation has probably given rise to her strong needs for emotional closeness. She feels lonely and seems to be at a loss about how best to achieve close relations with others. In effect, she probably regards herself as being ignored or rejected. She is clearly interested in people and probably conceptualizes them in a fairly realistic way. Much of the time, her social behaviors are likely to be adaptive for the situation, but she also seems confused about how to sustain social relations. She is interested in positive interactions, but tends to be overly forceful or aggressive in some of her exchanges. This can easily cause other children to avoid her. The end result is that she probably has become reluctant to become involved in social intercourse routinely, and it is likely that she responds to peers in an inconsistent manner. At times, she may seek to be overly close and, in other instances, she may be more forceful than is reasonable for the situation.

Issues and Recommendations

The referral questions whether she has emotional or psychiatric difficulties that are not readily evident, and whether she may be passive aggressive. She is not being passive aggressive, but she does have some rather notable emotional difficulties that contribute significantly to her inconsistent performance. She seems confused and fearful of her feelings, and unable to express them in ways that are personally gratifying and, at the same time, acceptable to others. Two core issues probably contribute to this confusion. First, she is somewhat skeptical about her own worth. She tries very hard to meet the standards that she perceives others have set for her, but she is often too hasty in her processing effort and does not always succeed. Her lack of success simply confirms negative beliefs that she has developed about herself. Second, and possibly more important, she is a needy and lonely child. She feels rejected and possibly unwanted, and this adds to her confusion and the constraint of her feelings.

Often parents become inadvertently negligent in providing the supports that a child needs. In this instance, the parents may believe that she is able to function much more independently than is the case. They have been relying on teachers and tutors for remediation rather than becoming directly involved. She probably regards them more as evaluators rather than facilitating sources of support. She needs emotional reassurance and a sense of being wanted. Without it, other efforts to improve her motivation and academic performance will, at best, produce only marginal improvements. However, if she feels loved, accepted, and supported, most remedial efforts should have a considerable impact. The most important of those should include a strategy by which she is taught to scan information more slowly and carefully, and probably reconsider decisions before implementing them. This is easy to implement with a child, and significant gains are usually forthcoming in relatively brief time periods. Once some gains have been made in these areas, intervention might also be designed to assist her in developing more adaptive social skills. Ultimately, her peer relationships will become even more important for her than is now the case, and she should be well prepared to create and sustain useful and rewarding relations with others.

REFERENCES

- Exner, J. E. (1983). Additions to the structural summary. *Alumni newsletter*. Bayville, NY: Rorschach Workshops.
- Exner, J. E. (1986). *The Rorschach: A Comprehensive System. Volume 1: Basic foundations* (2nd ed.). New York: Wiley.
- Exner, J. E. (1989). The new schizophrenia index. *Alumni newsletter*. Asheville, NC: Rorschach Workshops.
- Exner, J. E. (2000). *A primer for Rorschach interpretation*. Asheville, NC: Rorschach Workshops.
- Exner, J. E., Martin, L. S., & Mason, B. (1984). *A review of the Rorschach Suicide Constellation*. 11th International Congress of Rorschach and Projective Techniques, Barcelona, Spain.

- Exner, J. E., & Wylie, J. R. (1977). Some Rorschach data concerning suicide. *Journal of Personality Assessment, 41*, 339-348.
- Fowler, J. C., Piers, C., Hilsenroth, M. J., Holdwick, D. J., & Padawer, J. R. (2001). The Rorschach Suicide Constellation: Assessing various degrees of lethality. *Journal of Personality Assessment, 76*, 333-351.
- Smith, S. R., Baity, M. R., Knowles, E. S., & Hilsenroth, M. J. (2002). Assessment of disordered thinking in children and adolescents: The Rorschach Perceptual-Thinking Index. *Journal of Personality Assessment, 77*, 447-463.

APPENDIX

The Form Quality Table

The Form Quality table (Tables A.1 to A.10), is used very frequently in coding decisions concerning responses. It includes figures of each of the 10 blots showing the location numbering for the common and unusual detail areas. The bulk of the Form Quality table is comprised of listings of responses, by card and location area. Each is designated as o (*ordinary*), u (*unusual*), or - (*minus*), depending on whether it meets the frequency or judgment criteria described in Chapter 8.

The Form Quality table could be expanded considerably with the addition of a large number of minus responses, selected either from the more than 205,000 responses against which the frequency criteria were applied, or from psychotic or schizophrenic records not included in that database. However, the overwhelming majority of those answers occur with a very low frequency, typically less than once per 500 records. Their inclusion would probably detract, more than assist, in the usefulness of the table by making it much longer. Thus, a frequency criterion of four or more has been used in selecting the minus responses that are included for the *W* and *D* areas, and three or more for inclusion in the listings for *Dd* areas.

As described in Chapter 8, some answers that would typically be coded o will have form features that are articulated more extensively than is common. Thus, the *FQ* coding of + is warranted. The decision to code a response as *FQ+* involves some subjective judgment. Answers coded + reflect an unusual detailing of form features that may be the product of creativeness, or may simply

represent a tendency toward greater preciseness. In either case, the person has gone well beyond the normal requirements for form specification and, in doing so, has enriched the answer by being more precise or detailed.

It is also important to note again, that the coding of + is restricted to answers that, with less elaborate form articulation, would be coded o. This is an empirically based rule. The vast majority of responses that include an unusual elaboration of form elements, and thus are coded +, also meet the criterion to be coded o. It is true that some uncommon answers, coded u, are especially creative and include an elaborate specification of the form features. Even so, an *FQ* coding of + is not assigned because of the u coding. This is to insure that the calculations for the $X+\%$ and $Xu\%$ accurately reflect the extent to which answers in which form has been used appropriately are differentiated as being conventional or uncommon.

In a broad context, the Form Quality table can be thought of as the basic source from which to determine the correct form quality coding for an answer. The task would be reasonably straightforward if all answers were simply differentiated into two categories, one for appropriate form use (*good fit*) and one for inappropriate form use (*poor fit*). The Comprehensive System approach builds on the basic distinction between good and poor form fit, by adding a second layer of differentiation to glean more information about perceptual and mediational operations, and their influence on cognitive functioning. This second

layer of differentiation focuses only on those responses in which form has been used appropriately. The goal is to sort out those answers which are reasonably common (*ordinary*) from those which are considerably less common (*unusual*).

The listing of responses in the Form Quality table is fairly extensive, and the *FQ* decision will be made easily for most answers. However, some items may not appear in the table with the same specificity that occurs in a response. When an item does not appear in the table for a given location area, it is necessary to attempt *conservative but reasonable* extrapolation from the table.

Some extrapolation is very straightforward. For instance, a person may have given the response, *A cougar* to the *D1* area of Card VIII. An examination of the table reveals that some specific animals appear in the listing for the *D1* area, but *cougar* is not in the list. However, under the heading *animal*, which is listed as *o*, it is noted that this item deals with a class of four legged animals that have shapes appropriate to the *D1* contours. The notation also includes several commonly reported animals including *cat*. Thus, it is not difficult to extrapolate from the notation to select the appropriate coding of *o* for *cougar*.

Other extrapolation efforts require more effort and good logic. For example, a person may report, *Some cherries, four of them*, to the *D6* area of Card IX. *Cherries* are not listed for the *D6* area in the table. The first step is to review items in the listing for *D6* searching for similarities. That review yields three possibilities (*apples*, *radishes*, and *raspberries*), but they do not all have the same *FQ* code. *Apples* are listed as *o*, whereas *radishes* and *raspberries* are listed as *u*. A scorer might be tempted to make a decision at this point, but one more step should be taken before any decision is reached. It is a review of the listing of items for the *D4* area, because the person has noted that there are *four of them*, and one includes the *D4* area. This review finds that *cherry* is not listed for *D4*, but both *apple* and *raspberry* are listed as *o*.

The decision concerning this answer, whether four *cherries* should be coded as *u* or *o*, might be

addressed concretely by some coders who assume that if cherries are not listed either for *D6* or *D4* the scoring should be *u*. But that *is not* reasonable extrapolation. A cherry is like a small apple, and not very unlike a raspberry. Reasonable extrapolation suggests that the coding of *o* is more appropriate. The decision follows the same logic used in the extrapolation described earlier concerning the cougar response. Namely, if the scanning of the list reveals an item similar to that given in the answer, it is correct to assign the same code for the unlisted item.

Conversely, if the specific objects listed are not comparable in form to the object in question, the coding decision will remain more subjective using the following principles that are derived from the *FQ* criteria:

1. If a specific item is not listed and extrapolation does not occur easily, it should be coded either as *u* or *minus* by applying principles 2 or 3.
2. If a specific item does not appear in the list and extrapolation is impossible but the object can be perceived *quickly and easily* and involves no substantial contour distortions, it should be coded *u*.
3. If a specific item is not in the list, and extrapolation is impossible, and the object can be perceived only with difficulty, or not at all, it should be coded as *minus*.

As with the "cherry" example, it may be necessary to review the lists for more than one location before reaching a decision. For instance, a response might involve several specific anatomy objects. The list for the total area might indicate an *FQ* code for anatomy (*Unspecified*). In this case, the lists for the areas used for each of the anatomy objects should be reviewed to determine if codes are available for any of those items.

As noted in Chapter 8, some multiple object responses, not listed in the table, will also require a review of more than one location list before

making a decision about the *FQ* coding. When that is the case, the lowest *FQ* value should be assigned to the response, *if the object listed with a lower value is considered important to the overall answer*. For example, the Card II, *D1* areas, are Popular for bears, and usually assigned an *FQ* coding of *o*. However, if a response were, *Two bears (D1) standing behind a red flower (D3)*, the *FQ* coding would be *u* because *flower* is listed as *u* in the table, and it is important to the response. However, caution must be exercised when applying this rule to insure that an object with a lower *FQ* is really

important, and not just a casual addition, to the overall answer.

Caret marks (< v >) are included for some responses to indicate the direction of the apex of the blot. If no caret marks appear around an item, it signifies that the *FQ* coding listed is appropriate only when the apex of the card is in the upright position, *or when the object reported is described in a manner that is commensurate with the description that would be given of that object if the card were in the upright position*.

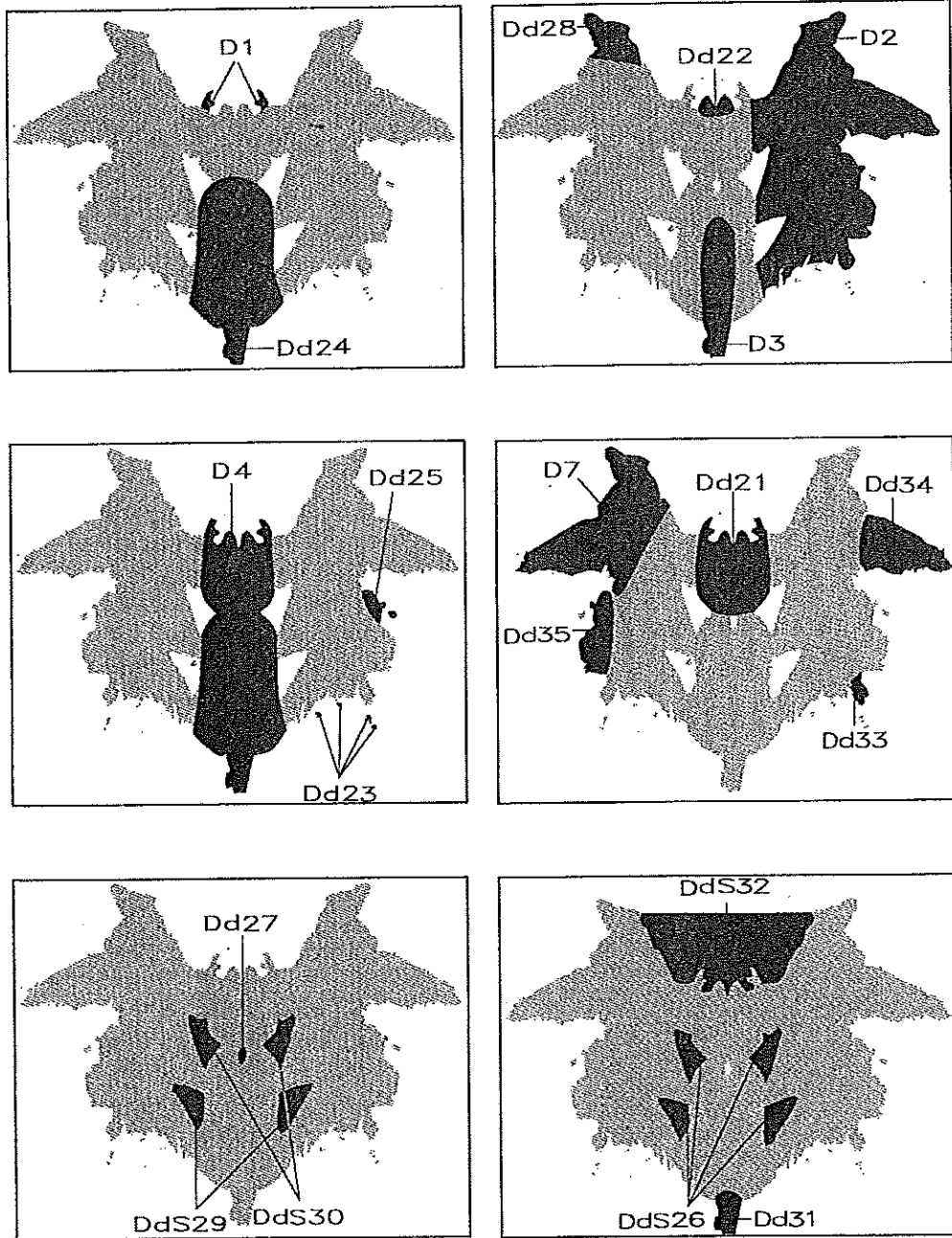


Figure A.1 D and Dd areas for card I.

Table A.1 Figures Showing Common (D) and Unusual (Dd) Location Areas by Card, Listings of Ordinary (o), Unusual (u), and Minus (-) Responses and Response Classes by Location Areas, Plus Populars and Z Values for Each Card.

CARD I		Popular is to W: Bat or Butterfly	
		Z Values: W = 1.0 Adjacent = 4.0 Distant = 6.0 Space = 3.5	
W			
-	Abacus	-	Breast
-	Abalone	-	Bridge (Man made)
-	Abdomen	u	Bridge (Natural)
u	Abstract	-	Buckle
u	Airplane (Top view)	o	Bug (Smashed)
-	Airplane (Front view)	o	Bug (Winged)
-	Albacore	-	Bug (Unspecified, not winged)
u	Amoeba	u v	Building
-	Anchor	-	Bullet
o	Angel	o	Butterfly
o	Angels (2 with D4 another object)	u v	Cabin
-	Animal (Not winged)	-	Cactus
(Note: This class of response includes a large group of animals which do not have wings or flappers such as bear, cat, dog, lion, etc.)		-	Cage
u	Animal (Winged but unspecified)	-	Cake
-	Ant	u v	Cap (Snow)
-	Anteater	u	Cape
u	Art (Abstract)	-	Car
u v	Astrodome	-	Cart
-	Australia	u v	Castle
-	Baboon	-	Cat
o	Badge	u v	Catamaran (Front view)
o	Bat	-	Cattle (Herd)
-	Battleship	u v	Cave (Front view)
-	Bear	o v	Chandelier
-	Beard	-	Chest
u	Bee	-	Chevron
u	Beetle (Winged)	-	Chinese Art
-	Bell	u v	Chinese House
u v	Bellows	u	Cinder
-	Bib	u v	Circus Tent
o	Bird	-	Cistern
u v	Bird (Prehistoric)	-	Citrus Tree
-	Blanket	-	Clamp
-	Boat	-	Clitoris
-	Body	u	Cloak
-	Body (Split)	-	Clock
-	Book	u	Cloud(s)
-	Bookmark	-	Clove
u	Bone (Skeletal)	u	Coal (Piece)
u	Bowl (With handles)	-	Coat
-	Brain	u	Coat of Arms
u	Brain (Cross section)	u	Cocoon (With winged insect emerging)
-	Brain (Top view)	-	Codfish
		u	Coral
		-	Cow
		u	Crab
		-	Crate
		-	Crater
		u	Crawfish
		o	Crow
		o v	Crown
		o	Dancer (As D4 in costume or cape)
		-	Dandelion
		u	Demon (In cape or with wings)
		u	Design
		-	Dirigible
		u	Dirt
		o	Disc (Anatomy)
		u v	Dome
		-	Door
		u	Dracula
		u	Dragon (Usually with wings)
		u	Dragonfly
		-	Dream
		-	Dress
		-	Drill
		u v	Drillpress
		u	Duck
		u	Dust (Speck)
		o	Eagle
		-	Egg
		-	Elves
		o	Emblem
		-	Explosion
		Face:	
		(Note: Most faces are o or u, provided Dd34 is used as ears, and DdS29 & DdS30 are used for eyes & mouth and the content is (Hd), Ad or (Ad), however, some faces are inappropriate for the contours. A partial list is given below.)	
		o	Face, Animal (Unspecified)
		u	Face, Animal w/ horns
		-	Face, Ant
		u	Face, Bear
		-	Face, Bird
		u	Face, Bug
		o	Face, Cat
		u	Face, Cow
		u	Face, Dog
		-	Face, Fish
		o	Face, Fox
		-	Face, Goat
		-	Face, Horse

(continued)

Table A.1 Continued.

W (continued)				
–	Face, Human	o	Insect (Not winged)	u v Rock
–	Face, Insect (Specified)	u	Insect (Winged)	u v Rocketship
u	Face, Insect (Unspecified)	–	Island	u Rower (In boat)
u	Face, Monster (Gremlin, evil, alien)	–	Jellyfish	– Rudder
u	Face, Mouse	–	Keel (Boat)	– Rug
u	Face, Rabbit (Floppy ears)	–	Kidney(s)	– Sailboat
–	Face, Raccoon	u	Kite	– Sawhorse
u	Face, Robot	–	Lamp	o Sea Animal (With D2 or Dd34 as flappers)
u	Face, Skeleton (Animal)	u	Landscape	– Seed
–	Face, Skeleton (Human)		(Note: This category includes rocks, rocky terrain and broad landscape expanse such as a mountainside)	– Ship
o	Face, Tiger	o	Leaf	– Shrimp
–	Face, Turtle	–	Lobster	– Skeleton (Unspecified)
u	Face, Witch	–	Lungs	o Skull (Human or animal)
o	Face, Wolf	–	Map (Specified)	– Smile
–	Fan	u	Map (Unspecified)	– Snowflake
–	Fern	o	Mask	u v Spaceship
–	Fiddle		(Note: This category includes a wide variety of animal, Halloween, monster, party, voodoo, etc. masks)	– Sperm
–	Fire	–	Mat (Door)	– Spider
–	Flag	–	Meat	– Sponge
u	Flea	u	Medusa	– Spring (Metal)
u	Fly	–	Melon	u Squirrel (Flying)
u	Fog	u v	Monster	o Statues (2 or 3)
–	Foliage	u	Mosquito	– Steeple
–	Food	o	Moth	u Stone (Carved)
–	Forest	u v	Mountain	– Stove
u	Fossil	u	Mud	– Sundial
o v	Fountain	–	Neck	– Tank (Army)
–	Frog	–	Neckbone	u v Tent
u	Fur (Piece)	–	Nest	– Tornado
u	Fuzz (Piece)	–	Net	o Totem (Winged)
–	Garden	–	Nose	u v Train (As D4 crossing a trestle)
u v	Gazebo	–	Note (Musical)	– Tree
u	Gnat	o	Opera Singers (2 or 3)	– Tuning Fork
o	Girls (Dancing or standing in a circle)	o	Ornament	– Turtle
u v	Hair (Styled)	–	Owl	u Urn
o v	Hat (Woman's)	–	Pau (Cooking)	– Valve
–	Head (See Face)	–	Parking Meter	u Vase
o v	Headdress	o	Pelvis	– Washing Machine
–	Helicopter	–	People (2) Dancing	u Wasp
o v	Helmet	–	Pick (Guitar)	– Wave
u v	Hill	–	Plant	– Weather Vane
–	Hive (Insect)	o	Plymouth Emblem	– Weed
u v	House	–	Pot	o Witches (2 or 3)
–	Human	–	Printing Press	o Woman (Winged or caped)
o	Human (Winged or caped)	–	Pumpkin	– Wood
u	Humans (2 Facing midline)	–	Rib(s)	o X-ray (Chest)
–	Humans (2 Turned away)	–	Roadmap	– X-ray (Heart)
o	Humans (3, one at D4)	–	Robot	– X-ray (Lungs)
–	Ice	u		o X-ray (Pelvis)
u	Ink			– X-ray (Stomach)
u	Inkblot			o X-ray (Unspecified)
				– Yacht

Table A.1 Continued.

Table A1X Continued

D1					
-	Ants		elephant, some varieties of dogs)	-	Candle Holder
o	Antennae	-	Animal (Specified as short eared such as cat, cow, and some varieties of dogs)	-	Face
u	Antlers			-	Gun
-	Apes			o	Human (Lower half)
o	Bird Heads	o	Animal (Cartoon)	-	Insect
-	Birds	u	Animal (Unspecified)	o	Legs
-	Bones	-	Bat	o	Mummy Case
-	Bugs	-	Beetle	-	Nose
u	Butterflies	o	Bird (With Dd34 as wings)	-	Ornament
o	Claws	- v	Boots	-	Penis
-	Clip	u	Bug (With Dd34 as wings)	u	Robot
-	Crabs	-	Bug (Not winged)	-	Snake
u	Dancers	-	Cat	u	Spaceship
u	Devils	-	Chicken	u	Spinal Cord
u	Duck Heads	u	Cloud	o	Statue
u	Eagle Heads	-	Cow	o	Totem Pole
-	Elves	o	Dancer	-	Tree
o	Feelers	o	Demon	-	Vagina
o	Fingers		Dog (See Animal)	o	Vase
-	Flags	-	Dragon	u	Violin
-	Fork	o	Face (Animal, bird, cartoon or monster with Dd34 as nose)	D4	
u	Ghosts			-	Alligator
-	Gun	-	Face (Animal, bird, cartoon or monster with Dd34 as ear)	-	Anatomy
o	Hands	-		-	Animal (Unspecified)
-	Heads (Animal)	-	Face, Human	-	Ant
o	Heads (Birds)	-	Fish	u	Baboon
u	Heads (Insects)	-	Gargoyle	-	Bee
u	Heads (Monster)	u	Head, Bird	o	Beetle
u	Heads (Reptile)	o	Human	-	Bird
o	Horns	o	Human-Like Figure	-	Bone Structure
o	Humans or human-like figures	o	Landscape	o	Bug (With D1 as antennae or feelers)
-	Insects	u	Leaf	-	Bullet
o	Mittens	-	Map (Specified)	-	Cat
u	Monsters	u	Map (Unspecified)	o	Cello
-	Penis	o	Pegasus	-	Centipede
o	Pincers	-	Pig	-	Clitoris
u	Puppets	u <	Rabbit	-	Crab
-	Rocket	-	Rodent	u	Cricket
u	Rocks	-	Sky	u	Crown (Ceremonial)
-	Roots	u	Smoke	-	Door
u	Sculpture (Abstract)	-	Tree	-	Face
-	Shrimp	u <	Tree(s) & foliage	-	Fish
u	Thumb	o	Wing(s)	-	Fly
-	Tooth	-	Wolf	-	Frog
-	Tree	u	Woodpecker (Profile)	o	Gorilla
-	Waves	-	X-ray (Specified or unspecified)	o	Human (Whole)
D2				o	Human (Headless)
o	Acrobat		D3	o	Humans (2)
-	Airplane	u	Alligator	o v	Human-Like Figure
-	Anatomy	u <	Alligator (Reflected)	o	Insect (Unspecified with D1 as antennae or feelers)
o	Angel	o v	Bowling Pin	-	Island
o	Animal (Specified as long eared, such as donkey,	-	Brain Stem	u	Jack-in-the-box
		-	Candle	-	Lamp

(continued)

Table A.1 Continued.

D4 (continued)		Dd21		Dd25	
-	Lobster	-	Anatomy	-	Animal
u	Man	o	Bug (<i>D1</i> as feelers)	-	Animal Rump
o	Monster	u	Crab	u	Face, Human-Abstract
u	Monument	-	Foliage	u	Face, Human
-	Nose	-	Heart	-	Trees
-	Plant	-	Jellyfish		
-	Reptile	u	Landscape		
u v	Rocket	o	Nest		
u v	Rocketship	-	Sea Animal		
u	Space Creature	u	Shield		
-	Spider	-	Statue		
-	Spine				
o	Statue				
u v	Tree				
-	Turtle				
-	Wasp				
o	Woman				
u	Vase				
u	Viola				
D7		Dd22		DsS26	
-	Animal (Not winged)	-	Balls	o	Clouds
o	Animal (Winged)	u	Breasts	o	Eyes
u	Arrowhead	u	Boulders	o	Ghosts
o	Bird	-	Buttocks	o	Mask Details
-	Bone	u	Eyes, bug or frog	u	Snow
u	Cliff	-	Ghosts	-	Trees
u	Cloud	-	Heads (Animal)	o	Windows
o	Crow	u	Heads (Human)		
u	Duck	o	Hills		
o	Eagle	u	Hump (Camel)		
u	Ears (Animal)	u	Labia		
u	Face, Animal (With <i>Dd34</i> as nose)	o	Mountains		
u	Face, Cartoon (With <i>Dd34</i> as nose)	-	Trees		
-	Face, Human	-	Warts		
u	Face, Witch				
-	Hat				
u	Head (Bird, duck, horse)				
-	Horn				
-	Insect (Not winged)				
u	Insect (Winged)				
o	Landscape				
-	Map (Specified)				
u	Map (Unspecified)				
u	Nest				
-	Plant				
u	Pot (<i>Dd34</i> as handle)				
u	Rock				
-	Skull				
o	Sphinx				
o	Statue (Bird)				
u	Weather Vane				
u	Wing (Airplane or bird)				
o	Wings				
		Dd23		Dd27	
		-	Airplanes	u	Boat (With midline)
		u	Birds	o	Buckle
		-	Dots	u	Elevator (With midline)
		-	Flies	-	Face
		u	Insects	-	Head
		o	Islands	-	Heart
		-	Notes (Musical)	u	Shield
		-	Symbols	u	Spaceship
		Dd24		-	Top
		o	Bell	-	Ulcer
		-	Bug		
		o	Cello		
		u	Dress		
		u	Emblem		
		-	Head		
		u	Helmet		
		-	Human (Whole)		
		u	Human Figure (Lower half)		
		u	Lamp		
		u	Lantern		
		u	Monster		
		-	Plant		
		u	Skirt		
		-	X-ray		
				Dd28	
				u	Arrowhead
				-	Bird (Whole)
				u	Hat
				-	Head (Animal)
				o	Head (Bird)
				-	Head (Human)
				u	Head (Human-like w/hat)
				-	Pole
				-	Shoe
				u	Tree
				DdS29	
				o	Eyes (Abstract)
				-	Eyes (Human)
				u	Flying Saucers
				o	Ghosts
				o	Holes
				u	Mountains
				u	Pyramids
				u	Snow
				u	Spaceships
				u	Tents
				u	Triangles
				u	Wings

Table A.1 Continued.

DdS30	
o	Eyes
o	Ghosts
u	Human (In costume)
-	Lungs
u	Snow
-	Trees
Dd31	
u	Feet
-	Hammer
u v	Head (Rabbit)
-	Head (Unspecified)
u v	Mountain peak
-	Nose
-	Root
-	Skull
-	Stinger
u	Tooth
u v	Volcano
DdS32	
u	Bay
-	Bird

u	Canyon
-	Mask
-	Vase
Dd33	
-	Ball
-	Bell
-	Bone
-	Head (Animal)
u v	Head (Human)
-	Lamp
u v	Mushroom
u v	Poodle Tail
u	Tail
o v	Tree
Dd34	
u	Arrowhead
u	Blade (Knife)
o	Cliff
-	Face
o	Fin
u <	Ghost
-	Head

-	Insect
o <	Mountain
u	Nose (Cartoon)
u	Rock
u	Saw
u <	Seal
u <	Shrub
u <	Tower
o <	Tree (Fir)
u <	Tree (Unspecified)
u <	Umbrella (Closed)
Dd35	
u <	Dog
-	Face (Animal)
-	Face (Bird)
u v	Face (Human)

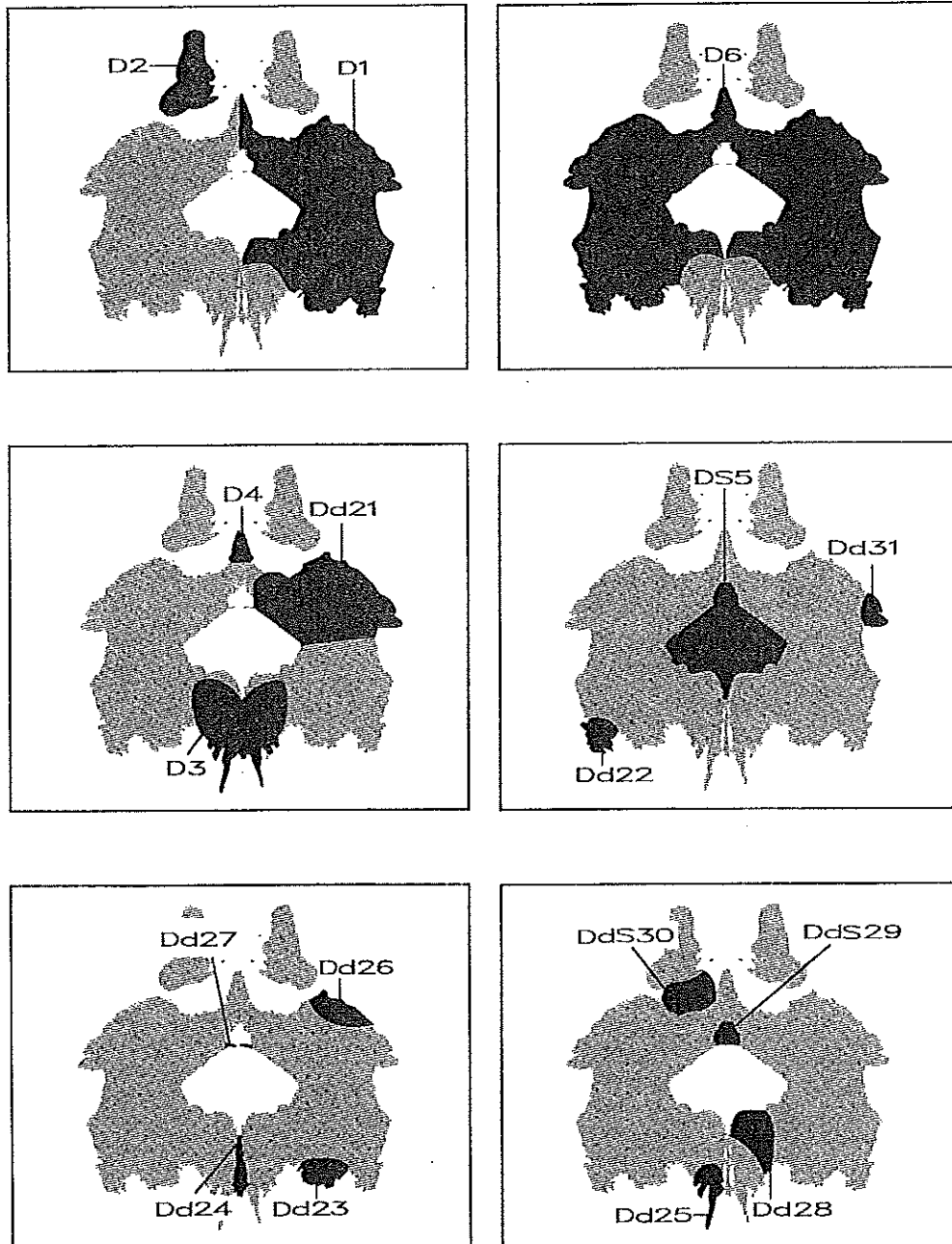


Figure A.2 D and Dd areas for card II.

Table A.2 Figures Showing Common (D) and Unusual (Dd) Location Areas by Card, Listings of Ordinary (o), Unusual (u), and Minus (-) Responses and Response Classes by Location Areas, Plus Populars and Z Values for Each Card.

CARD II		Popular is to D1: Bear, Dog, Elephant or Lamb, Head or Whole Animal			
		Z Values: W = 4.5 Adjacent = 3.0 Distant = 5.5 Space = 4.5			
W					
-	Anatomy (Specific)	u	Monster	u	Landscape
u	Anatomy (Unspecified)	u v	Moth	-	Leaf
u	Animals (Unspecified)	-	Mouth	-	Machine
u	Art (Abstract)	o	Ornament	-	Map
-	Badge	u v	Pelvis	o v	Monster
-	Bat	u	Penguins (2)	-	Monument
o	Bears	u v	Phoenix	o v	Mountain(s)
-	Bird	-	Plant	-	Pig
u	Birds (2)	-	Rectum	o <	Rabbit
-	Body	-	Spaceship	u	Rock
u	Bookends	o	Statues (Human or animal)	u	Smoke
-	Bug (Smushed)	-	Stomach	-	Sponge
u v	Bug (Winged)	-	Throat	u	Tiger
o v	Butterfly	u v	Torches (With smoke)	-	Tree
o	Cartoon Characters (Human or animal)	-	Tornado	-	Turtle
u	Cave	u	Turkeys	u	Warthog
u	Chickens	-	Vagina	-	Wing
o	Dancers	u	Volcano	D2	
u	Design (Abstract)	u v	Volcano (Erupting)		
o	Devils	- v	Wreath (Xmas)	-	Anatomy
-	Disc (Anatomy)	-	X-ray	u	Angel
u	Dogs (With D3 as blood or separate object)	D1		-	Animals (Unspecified)
u	Ducks			o	Bird
u	Emblem	-	Amoeba	u >	Bird
o v	Explosion	u	Animal (Stuffed)	o	Blood
-	Face (Human or animal)	u	Animal (Unspecified)	-	Boot
o	Fire & Smoke	u	Baboon	-	Bug (Not winged)
-	Flower	o	Bear	u	Bug (Winged)
-	Fly	-	Bird	o	Butterfly (Side view)
u	Gorillas	u <	Buffalo	-	Candle
-	Heart	o <	Cat	o	Cap
u	Hole (Bullet)	-	Chicken (No head)	-	Cell (Blood)
o	Humans or Human-Like Figures	u	Cloud	u	Chicken
-	Insect (Not winged)	-	Clown	o	Creature (Cartoon)
u	Insect (Winged)	u v	Coat	u	Devil
-	Intestines	o	Cow	u	Finger Painting
u	Kidneys	o v	Demon	-	Fingerprint
u	Kite	o	Dog	o	Fire
u	Lamp (Ornamental)	u v	Dog	o	Flame
-	Lungs	o	Elephant	u v	Footprint
-	Map	-	Fish	-	Hand
u	Mask	u v	Gorilla	o	Hat
(Note: This category includes a variety of animal, cartoon, Halloween, party etc. masks)		o <	Hamster	-	Head (Animal)
-	Meat	-	Hat	u	Head (Bird)
		-	Heart	-	Head (Human)
		-	Hippo	u	Head (Human-like)
		-	Human	u v	Holster
		o v	Human	u v	Hummingbird
		u	Insect	u v	Italy (Map)
		o	Lamb	-	Kidney

(continued)

Table A.2 Continued.

D2 (continued)					
—	Lantern	—	Head (Human)	o	Rocket
u	Lava	u v	Headset (Radio)	—	Snake
—	Leg	—	Heart	o	Spaceship
u	Lipstick Smear	u	Insect	u	Spear (Tip)
o	Mask (Animal, bird, cartoon, human-like)	u	Jellyfish	o	Steeple
u	Meat	—	Kidney	—	Tail
—	Mitten	—	Lobster	o	Temple
—	Penis	—	Lung	o	Tower
o	Puppet (Hand)	u	Manta Ray	u	Tree (Fir)
u	Rabbit	—	Mask	—	Tree (Unspecified)
—	Rat	u	Meat	—	Vase
u	Rooster	u	Menstruation	u	Weapon
o	Seal	u	Monster	DS5	
—	Shoe	u	Moth	o	Airplane
u	Snail	o	Paint	u	Archway
u v	Sock	u	Plant	u	Basket
u v	South America (Map)	u	Snail	—	Bat
—	Termite	u	Spaceship	u	Bell
u	Thumb	o v	Sun	—	Bird
—	Tongue	o v	Torch	—	Boat
—	Tooth	o	Vagina	u	Bowl
o	Torch	o	Volcano	—	Butterfly
—	Vase	—	Uterus	o	Castle (May include D4)
u	Walrus	D4		o	Cave
D3		o	Arrow	o	Chandelier
u	Anemone (Sea)	o	Arrowhead	o	Church
—	Ant	—	Bat (Baseball)	u	Crown
—	Anus	—	Bell	u	Diamond
u	Bagpipes	—	Bottle	u	Dome
—	Beetle	o	Bullet	—	Dress
o	Blood	u	Candle	u	Drill
—	Bug (Not winged)	o	Capsule (Space)	u	Fountain
o	Bug (Winged)	u	Castle	u	Glass
o	Butterfly	u	Clippers	u	Goblet
—	Clamp	—	Crucifix	u	Hat (Woman's)
u	Coral	—	Crucifixion	—	Heart
o	Crab	u	Dome	u	Helmet
—	Crawfish	—	Door	o	Hole
u	Embryo	u v	Drill	u	Island
o v	Explosion	—	Face	u	Kite
—	Face (Animal)	u	Hands (Praying)	o	Lake
u v	Face (Devil or monster)	u	Hat	o	Lamp
—	Face (Human)	—	Head	o	Light
u	Fan	u	Helmet	—	Mask
o	Fire	—	Knife	o	Missile
—	Fish	o	Missile	—	Mouth
u v	Flower	u	Monument	o	Ornament
—	Fly	—	Mountain	u	Pendant
—	Hair Ribbon	u	Nose	o	Rocket
u v	Head (Animal, horned)	u	Penis	u	Silhouette (Human, dancer or skater in costume)
—	Head (Animal, not horned)	u	Penpoint	u	Snowflake
—	Head (Bird)	u	Pliers	o	Spaceship
		u	Pyramid	u	Steeple
		u	Robot		

Table A.2 Continued.

Table A12 continued.

DS5 (continued)								
u	v	Sting Ray	–	Head (Bird)	–	Tail		
–		Stomach	–	Head (Fish)	–	Tusk		
u		Temple	–	Head (Human)				
o		Top	o	Mountain		Dd26		
o		Tunnel	–	Nest	o	Blood		
u		Vagina	–	Seal	u	Caterpillar		
o		Vase	–	Shrub	o	Fire		
u		Well	–	X-ray	u	Sunset		
					–	Walrus		
					u	Worm		
D6			Dd22					
–		Anatomy	o	v	Bush		Dd27	
u		Animals (2 Unspecified)	–		Chicken	u	Bridge	
o		Animals (2, meeting criterion for o as <i>D1</i>)	–		Head (Animal)	u	Claw	
–		Backbone	u	v	Head (Human)	–	Nail	
–		Bat	u	v	Rabbit	–	Tail	
–		Bird	u	v	Rock	–	Wall	
u		Butterfly	–		Tree			
u		Cloud(s)		Dd23			Dd28	
u		Doughnut	u	v	Bush	u	Bloodstain	
u		Drainpipe (with <i>DS5</i>)	–		Frog	–	Head	
–		Humans (2)	–		Head	–	Turtle	
o	v	Humans (2)	u	v	Mountain	u	Varnish	
–		Insect (Not winged)	u	v	Rock	u	Wood (Stained)	
u		Insect (Winged)	–		Tree	–	X-ray	
u		Island		Dd24			DdS29	
u		Landscape (Often with <i>DS5</i> as lake)	u		Anus	u	Cave	
–		Lungs	u		Bowling Pin	u	Cup	
–		Map (Specified)	u		Bullet	u	Dome	
u		Map (Unspecified)	u		Candle	u	v	Goblet
u		Moth	–		Face	u	Pottery	
u		Mountain	–		Ghost	u	Tunnel	
o	v	Pelvis	–		Human			
–		Rug	u		Human-Like Figure		DdS30	
u		Spaceship (Usually with reference to <i>DS5</i>)	u		Penis	–	Clam	
u		Spinal Cord (Slice, may include <i>DS5</i>)	u		Rocket	–	Eyes	
–		Stomach	–		Tooth	–	Head	
o	v	X-ray (Pelvic)	u		Totem	u	Inlet	
–		X-ray (Specific other than pelvic)	o		Vagina	–	Oyster	
–		X-ray (Nonspecific)	u	v	Waterfall			
Dd21				Dd25			Dd31	
–		Beak	o		Antennae	u	Beak	
–		Bird	o		Antlers	–	Claw	
–		Ear	u		Feelers	u	v	Ears (Animal)
–		Frog	o		Horns	u	Faces	
o		Head (Animal)	u		Icicles	–	Head (Animal)	
			u		Needle	u	Head (Human)	
			u		Spear	u	Head (Human-like)	
			u		Spike	u	<	Mountains
			u		Stick	u	Stone Sculpture	
						–	Trees	

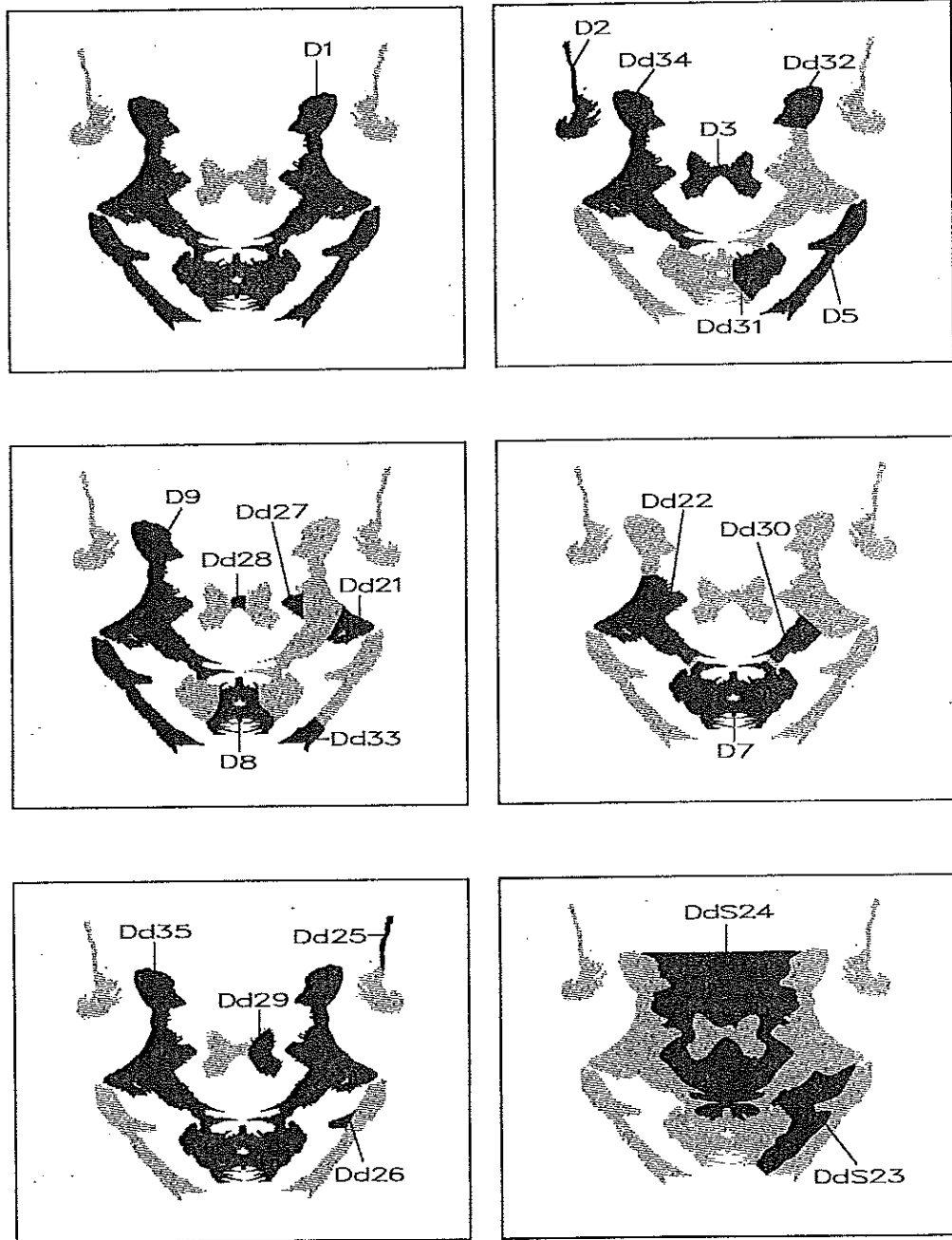


Figure A.3 D and Dd areas for card III.

Table A.3 Figures Showing Common (D) and Unusual (Dd) Location Areas by Card, Listings of Ordinary (o), Unusual (u), and Minus (-) Responses and Response Classes by Location Areas, Plus Populars and Z Values for Each Card.

CARD III		Popular is to D1 or D9: Human Figure or Representation Thereof			
Z Values: W = 5.5 Adjacent = 3.0 Distant = 4.0 Space = 4.5					
W					
(Note: Most W responses that involve a single object will be coded—as the blot is broken. In a few instances, response frequencies argue in favor of a u coding for answers which conform to the contours and are not largely dependent on arbitrarily created contours. W responses coded o will usually involve multiple objects)		—	Jack-O-Lantern	o	Pelvic Structure
—	Anatomy	—	Jellyfish	o	Sheep (2, or lambs)
—	Animal	u v	Landscape	—	Skeleton
o	Animals (As D1 in a scene with other objects, such as in a circus. All other objects included must be codeable as o if reported separately)	—	Map (Specific)	—	Skull
—	Ant	u	Map (Unspecified)	—	Spider
u	Art (Abstract)	u v	Monster	—	Trees
u	Badge	—	Noose	—	Tunnel
o	Birds (As D1 in a scene with other objects such as in a cage. All other objects included must be codeable as o if reported separately)	—	Rib Cage	u	Vase
—	Bug	—	Skeleton	o	X-ray (Pelvis)
—	Butterfly	—	Spider	u	X-ray (Unspecified)
—	Cat	u v	Vase (With handles and design)	D2	
u	Chandelier	—	X-ray	u	Amoeba
—	Crab	D1		—	Anchor
u	Emblem	—	Animal	o	Animal (Long tailed)
—	Face	u	Animals (2 Unspecified)	—	Animal (Not long tailed)
—	Flower	—	Ant	—	Artery
—	Fly	u v	Arch	—	Berries
—	Frog	—	Bird	o	Bird
u	Frog (Dissected)	o	Birds (2)	o	Blood
—	Gorilla	o	Bone Structure	—	Bone
—	Human	—	Bug	—	Brain
o	Humans or Human-Like Figures (As D1 in a scene with other objects each of which would be coded as o if reported separately, such as in ceremonies, parties, playgrounds, etc.)	u v	Cave Entrance	—	Bug
—	Insect	—	Dog	u	Chandelier
u v	Islands	o	Dogs (2 with D7 as separate object)	o	Chicken (Hanging)
		o	Dolls (2)	—	Club
		u	Frog (Dissected)	—	Cocoon
		u v	Gremlin	u	Coral
		—	Human	o	Decoration (Unspecified)
		o	Humans (2 with D7 as separate object)	o	Devil
		—	Humans (2 with D7 or Dd31 included as a part of the human figure)	—	Dog
		u v	Humans (With D5 as arms)	—	Dragon
		—	Insect	—	Duck
		u	Keel (Boat with D5 as supports)	o	Embryo
		o v	Landscape	u	Esophagus
		—	Lobster	u	Fetus
		—	Map (Specific)	—	Fire
		u	Map (Unspecified)	—	Fish
		o	Monkeys (With D7 as separate object)	u	Fishhook
		u v	Monster (Alien, robot)	o v	Flamingo
		u v	Mountain (Usually with snow)	—	Flesh
		o	Ostrich (2)	u v	Flower
				—	Fly
				u	Germ
				u	Guitar
				o	Hat (Clown or Costume)
				—	Head (Animal)
				—	Head (Bird)
				—	Head (Human)
				u	Head (Human-like)

(continued)

Table A.3 Continued.

D2 (continued)					
-	Heart	o	Bow	-	Bird
u	Hook	-	Brain	u	Bomb
o	Human (This class of response includes many varieties of the human figure with the blot held in various positions, such as acrobat, child, gymnast, etc.)	u	Brassiere	-	Bone
		-	Breasts	-	Bug
		-	Breastbone	D5	
		o	Butterfly	u	Bullet
		u	Chair (Back of typists)	u	Claw
		-	Crab	u	Club
		u	Dam (Between hills)	o	Fish
o	Human-Like Figure (This class of response includes many variations of cartoon, mythological, or science fiction figures such as devil, dwarf, elf, imp, etc.)	o	Decoration (Unspecified)	-	Gun
		-	Dragonfly	-	Hand
		u	Dumbbell	-	Horn
		u	Emblem (Abstract)	u	Island
		u	Exercise Apparatus	o	Leg (Animal)
		-	Eye Glasses	o	Leg (Bird)
-	Insect	u	Eye Shades	o	Leg (Human)
-	Intestine	o	Fire	u	Leg (Insect, usually spider)
u	Island	-	Fly	u	Limb (Tree)
u	Kidney	u	Fossil	u	Log
u	Lantern	-	Girdle	-	Map
-	Lung	u	Hang Glider	u	Missile
o	Meat (Hung)	-	Heart	-	Pen
o	Monkey	-	Helmet	u	Peninsula
o	Neuron	-	Human(s)	u	Rocket
u	Note (Musical)	-	Insect (Not Winged)	o	Shark
o v	Parrot	u	Insect (Winged)	-	Snake
u v	Pipe	-	Intestine	u	Spaceship
u v	Plant	u	Island	u	Spear
o	Pot (Hanging)	u	Kidney	u	Stick
o v	Puppet	u	Kite	u	Torpedo
-	Rabbit	-	Lips	-	Tree
-	Raindrops	o	Lungs	-	Vine
u	Robot	-	Mask	D7	
u	Rope (Vine)	u	Mosquito	-	Anatomy
u	Sea Horse	o	Moth	-	Animal
-	Snail	-	Mouth	o	Basket
-	Snake	-	Nose	-	Beetle
u	Statue (Abstract)	u	Noseguard	o	Bones
u	Statue (Animal)	-	Nostrils	-	Buckle
o	Statue (Human)	-	Oranges	-	Butterfly
-	Stick	o	Pelvic Structure	-	Cactus
u	Stomach	o	Ribbon	o	Cauldron
o	Symbol (Abstract)	-	Seed	u	Coal (Piece)
u v	Tree	-	Skeleton	o	Crab
o	Umbilical Cord (With placenta)	u	Slingshot	u	Drum
-	Vase	u	Spinal Cord (Cross Section)	-	Ducks
		u	Sun Glasses	-	Eye Glasses
		-	Testicles	-	Face
		-	Trees	o	Fireplace
		u	Wasp	u	Gate
		u	Wing	-	Head
		-	Wishbone	u	Head (Monster)
		D5		-	Heart
		u	Arm	u	Island
		u	Arrow		

Table A.3 Continued.

D7 (continued)			
—	Kidney	u	Demon
—	Lungs	o	Dog
u v	Mushrooms	o	Doll
o	Nest	u	Duck
o	Pelvis	—	Foliage
u	Pumpkin (Halloween)	u	Ghost
—	Ribs	o	Human
o	Rock(s)	—	Insect
u	Shadows	u	Jack-in-the-Box
u	Smoke	—	King Kong
—	Stomach	o	Lamb
u	Table	u v	Landscape
— v	Tornado	o	Monkey
o v	Trees (DdS24 Lake)	u	Monster
—	Vagina	u v	Mountain
u	Vertebrae	u	Parrot
o	X-ray (Pelvis)	o	Puppet
—	X-ray (Specific other than pelvis)	—	Rabbit
u	X-ray (Unspecified)	—	Root
D8		o	Sheep
u v	Basket	u	Skeleton
o	Bones	—	Spider
—	Brain Stem	u	Statue
—	Chest	—	Tree
u	Crab	o	Witch
—	Dragon	—	X-ray
u	Face (Alien, monster)	Dd21	
u	Hour Glass	u	Bird
u	Lake (In Mountains)	—	Bomb
u	Lamp	u	Cliff
u	Monster	—	Dog
—	Pumpkin	—	Head (Animal)
o	Ribs	o	Head (Bird)
—	River	o	Head (Fish)
u	Skeletal (Specific other than ribs)	—	Head (Human)
o	Skeletal (Unspecified)	u	Landscape
u	Stone	o v	Mountain
u v	Torch	u	Peninsula
—	Vagina	u v	Tree
u v	Vase	Dd22	
u v	Wine Glass	—	Animal
—	X-ray	o	Bird
D9		—	Bone
—	Anatomy	u	Cloud
u	Animal (Unspecified)	u	Human (Upper Half)
—	Ant	u v	Landscape
o	Bird	—	Rodent
—	Bug	u	Statue
o	Cartoon Figure	DdS23	
u	Chicken	u	Bird
u	Cloud	u	Cloud
		u	Ghost
		—	Head
		u	Water
		DdS24	
		u	Bowl
		—	Head
		u	Lake
		u v	Lamp
		u v	Mushroom
		u	Snow
		u v	Statue
		u	Vase
		Dd25	
		u	Esophagus
		—	Face
		—	Head
		u	Root
		u	Rope
		—	Spear
		u	Stick
		u	String
		u	Tail
		—	Tool
		u	Tube
		u	Umbilical Cord
		u	Worm
		Dd26	
		u	Duck Bill
		u	Fin
		—	Head
		—	Leg
		o	Penis
		u	Stump
		Dd27	
		o	Breast
		—	Building
		o	Head (Animal)
		o	Head (Bird)
		u	Head (Fish)
		—	Head (Human)
		u v	Mountain
		u	Nose
		—	Skull
		Dd28	
		u	Corset
		u	Dam
		u	Doors (Swinging)
		—	Face
		—	Head
		u	Net
		—	Tooth

(continued)

Table A.3 Continued.

Dd29			
-	Airplane	-	Fan
-	Arrow	u	Feather Duster
u	Arrowhead	u	Gourd
u	Bird	-	Hat
u	Breast	-	Head (Animal)
u	Butterfly	o v	Head (Human)
u	Cartoon Character	o v	Head (Skeletal)
-	Fetus	u	Kettledrums
-	Head	-	Lamp
-	Heart	-	Lungs
-	Human	u	Mittens
-	Insect	-	Mountains
-	Kidney	o	Pot
-	Tent	-	Shoes
u <	Valentine	o	Skeletal
Dd30		o v	Skull
u	Arm	u	Smoke
-	Club	o	Stones
-	Foot	o v	Trees
-	Hand	-	Turtle
-	Head	-	Womb
u	Icicle	Dd32	
u	Log	-	Animal
-	Missile	-	Ball
Dd31		u	Clam
-	Anatomy	u	Coconut
u	Animal	-	Egg
o	Ball	-	Eye
u	Balloon	-	Fish
o	Basket	-	Head (Animal)
u	Bones	o	Head (Bird)
u	Boxing Glove	o	Head (Human)
u	Cloud	u	Mask
-	Earmuffs	u	Oyster
-	Embryo	u	Rock
-	Eyes	u	Statue
-	Face	Dd33	
		u	Claw
		u	Finger
		u	Foot
		-	Fork
		u	Hand
		-	Head (Animal)
		u	Head (Bird)
		-	Head (Human)
		o	Hoof
		-	Penpoint
		o	Shoe
		-	Spear
		Dd34	
		-	Animal
		o	Bird
		-	Fish
		o	Human (Upper part)
		-	Insect
		o v	Landscape
		o v	Mountains
		-	Skeletal
		-	X-ray
		Dd35	
		u	Arch
		o	Birds (2)
		u	Bones
		u	Bowl
		-	Crab
		-	Frog
		u	Islands
		o v	Landscape
		u	Mountains (Aerial view)
		o	Pelvis
		-	Trees
		u	Vase
		o	X-ray (Pelvis)
		-	X-ray (Specific other than pelvis)
		u	X-ray

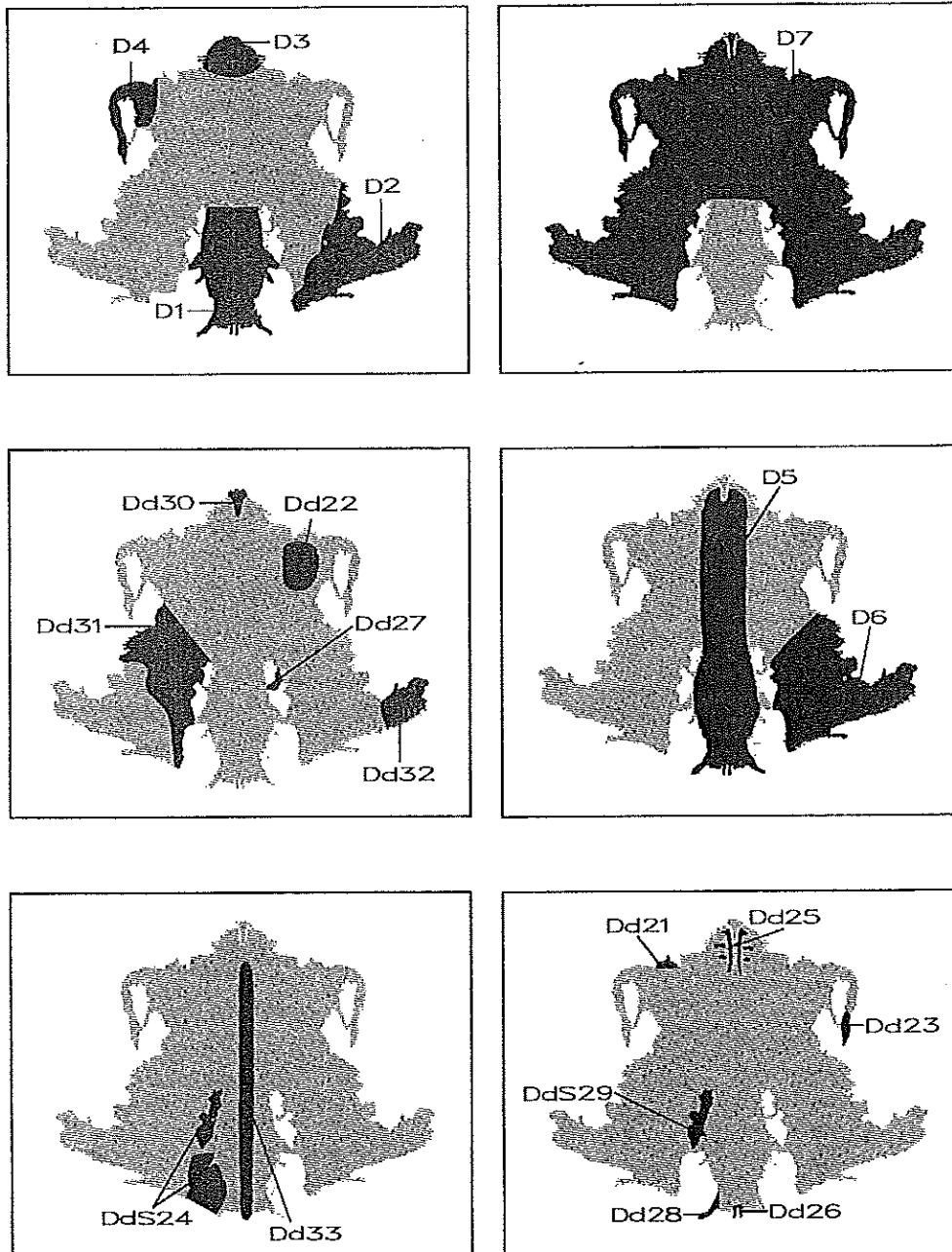


Figure A.4 D and Dd areas for card IV.

Table A.4 Figures Showing Common (D) and Unusual (Dd) Location Areas by Card, Listings of Ordinary (o), Unusual (u), and Minus (-) Responses and Response Classes by Location Areas, Plus Populars and Z Values for Each Card.

CARD IV		Popular is to W or D7: Human or Human-Like Figure			
		Z Values: W = 2.0 Adjacent = 4.0 Distant = 3.5 Space = 5.0			
W					
-	Amoeba	u	Head (Animal)	u	Scarecrow
o v	Anchor	-	Head (Bird)	o	Sea Animal
o	Animal	-	Head (Human)	u	Seaweed
u	Animal (Squashed)	u	Head (Reptile)	o	Skin (Animal)
u	Anteater	-	Helmet	-	Skull (Animal)
o v	Badge	o	Hide (Animal)	u	Smoke
o v	Bat	o	Human	-	Snail
u	Bell	(Note: This class of response may involve W as the human figure or D7 as the human figure with D1 as a second object, such as bike, seat, stump, etc. The card must be upright.)			
u v	Bird	o	Human-Like Figure	u	Snowflake
o	Boots (On pole)	u	Humans (2, leaning against center object)	u	Sponge
-	Brain	o	Hunchback	u	Squid
-	Bug (Flattened)	u	Ice Cream Cone	u	Squirrel (Flying)
u v	Bug (Winged)	-	Insect	u	Squirrel
-	Building	u v	Insect (Winged)	u	Statue
-	Bull	u	Island (Unspecified)	o v	Sting Ray
o	Bush(es)	-	Jello	u	Teenage Mutant NinjaTurtle
o	Butterfly	-	Jellyfish	u	Temple
-	Candle	u	Kite	o	Tree
u	Canyon (Often with center area as river)	o	Landscape	-	Tornado
u	Carcass (Animal)	o <	Landscape (Reflected)	-	Turtle
-	Cave	o	Leaf	u v	Urn
u v	Chandelier	-	Lettuce	u	Volcano
u	Cloud(s)	-	Lobster	u v	Waterfall (As D1 with landscape around)
o	Coat (On pole)	-	Lung(s)	o	X-ray (Pelvis)
-	Coral	u	Map (Specific)	-	X-ray (Specific other than Pelvis)
-	Crab	o	Map (Topographic, nonspecific)	u	X-ray (Unspecified)
o v	Crest	u	Map (Unspecified)	D1	
u	Design (Abstract)	u	Mask (Usually science fiction)	-	Alligator
u	Dinosaur (Front view)	-	Meat with bone	-	Animal
u	Dirt	o v	Monster	u	Bug
u	Dog (Sitting, usually facing away)	u v	Moth	o	Bush(es)
u	Dragon (Front view)	u	Mountain	o v	Cactus
u v	Eagle	u	Mud	u v	Candle
-	Elephant	o	Pelt	u v	Castle
o v	Emblem	o v	Pelvis	o	Caterpillar
-	Embryo	o v	Plant	-	Crab
u v	Explosion	u	Robe	-	Crawfish
-	Face	u	Robot	u v	Crown
u v	Flower	u	Rocket	-	Fish
u	Forest (Top view)	-	Root	o v	Head (Animal, horned or horse)
u	Fossil	o v	Rug	- v	Head (Animal, specific not horned or horse)
u v	Fountain	u		u v	Head (Animal, not specific)
u	Frog	u		u v	Head (Bird)
u	Fungus	-		u	Head (Dragon)
o	Giant	o		- v	Head (Human)
o	Gorilla			o v	Head (Insect)
u	Groundhog				

Table A.4 Continued.

D1 (continued)			
u v	Head (Monster)	u	Map (Unspecified)
- v	Head (Reptile other than turtle)	u	Peninsula
u v	Head (Turtle)	o <	Pig
u v	Head (Snail)	u	Rock
-	Human	o <	Seal
u v	Hydrant	o	Shoe
o	Insect	u	Sphinx
-	Intestines	u	Statue
-	Lamp	u <	Totem
u v	Lighthouse	u <	Wave
u	Medulla	u	Wing
-	Nose (Human or animal)	-	X-ray
u	Nose (Fictional human or animal)	D3	
-	Penis	-	Anus
-	Shell	u	Brain
o	Shrub	-	Beak (Bird)
-	Skull	o	Bud (Flower)
u	Snail	u	Bush
-	Snake	u	Butterfly
o	Spinal Cord	u	Cabbage
o	Stool	u	Clam
u v	Stove (Wood burning)	u	Crown
o	Stump	-	Face
u	Tail	u	Fan
o	Tree Trunk	o	Flower
o	Vertebrae	o	Head (Animal, flat faced such as cat, monkey, owl, etc.)
-	Worm	-	Head (Animal, specific but not flat faced)
-	X-ray	u	Head (Animal, unspecified)
D2		u	Head (Bird)
o <	Bear	-	Head (Human)
-	Boat	u	Head (Monster or science fiction)
-	Bone	-	Head (Reptile)
u	Cliff	-	Insect (Not winged)
u	Cloud	u	Insect (Winged)
-	Cow	u	Leaf
o v	Dog	u	Mountain
-	Emblem	u	Mushroom
o	Foot	o	Sea Shell
o <	Head (Animal, flat or stubby nose such as bear, dog, pig, seal, etc.)	u	Shrub
u <	Head (Animal, not specific)	u	Tam o' Shanter
-	Head (Bird)	u	Tree (Top)
u v	Head (Camel)	u	Vagina
o <	Head (Human)	D4	
-	Head (Insect)	-	Animal
-	Head (Reptile)	u	Arm (Deformed)
u	Landscape	-	Arrow
u	Map (Africa or South America)	o	Bird (Long necked)
-	Map (Specific other than Africa or South America)	o	Branch (Tree)
		u	Cap (Stocking)
		o	Claw
		o	Diver (Back flip)
		-	Ear
		u	Eel
		-	Fish
		u v	Fish hook
		-	Flower (Dead)
		o	Handle
		-	Head (Animal)
		o	Head (Bird)
		u	Horn (Animal)
		o	Human (Bending or diving)
		o	Icicle
		-	Leg
		o	Lizard
		u	Nail (Bent)
		u	Peninsula
		-	Penis
		u	Root
		o	Snake
		u	Tail
		u	Trunk (Elephant)
		o	Vine (Hanging)
		D5	
		o	Bone (Skeletal)
		o	Canyon
		o	Column
		-	Crayfish
		u	Drill
		-	Fish
		u v	Fountain
		o	Gorge
		-	Insect
		o	Pole
		o	River
		-	Rocket
		o	Spinal Cord
		-	Statue
		u	Totem
		-	Tree
		o	Vertebrae
		o	Waterway
		u	Worm
		u	X-ray (Specific other than spine)
		o	X-ray (Spine)
		u	X-ray (Unspecified)
		D6	
		o <	Animal (As D2 on hill or rock)
		o	Boot
		-	Face
		o	Foot
		u v	Head (Camel)
		u v	Head (Cartoon animal)

(continued)

Table A.4 Continued.

D6 (continued)		Dd22		DdS29	
o <	Human (As D2 sitting in a chair or on a hill)	–	Eye	u	Clouds
–	Italy	–	Face	u	Ghosts
o	Leg	–	Head	u	Lakes
u	Map (Italy)	–	Moon	u	Monsters
–	Map (Specific other than Italy)	Dd23		Dd30	
u	Map (Unspecified)	u	Beak	u	Beak
u	Rudder	–	Head (Animal)	–	Face
–	Sea Animal	o	Head (Bird)	u	Flower
u	Shoe	–	Head (Human)	–	Heart
u	Smoke	u	Head (Reptile)	–	Human
u v	Wing	DdS24		u	Nail
D7		u	Clouds	o v	Rocket
u v	Anchor	u	Ghosts	u	Tack
o	Animal	–	Head(s)	o	Tee (Golf)
u v	Badge	u	Snow	–	Tongue
o v	Bat	Dd25		u	Tooth
u	Bird	–	Face	u	Waterfall
–	Bug	–	Human(s)	Dd31	
–	Crab	–	Human-Like Figure(s)	–	Animal
–	Face	u	Landscape (Aerial view)	–	Bird
u	Fossil	Dd26		u	Ghost
u	Frog	–	Clitoris	–	Head (Animal)
o	Giant	u	Feet	–	Head (Bird)
o	Gorilla	u	Fingers	–	Head (Human)
–	Head	u v	Ghosts	u v	Head (Human-like)
u	Helmet	–	Heads (Animal)	–	Human
o	Hide (Animal)	–	Heads (Bird)	–	Rock
o	Human	u	Heads (Human)	–	Root
o	Hunchback	–	Humans	u v	Seal
u	Island	u v	Human-Like Figures	u v	Statue
o	Mask	u	Legs	–	Tree
o	Monster	u	Snakes	u v	Witch
u	Mountain	–	Teeth	Dd32	
o v	Pelvis	–	Trees	–	Fist
u	Squirrel	u	Worms	u <	Head, Animal
u	Statue	Dd27		u v	Head (Animal with flat or stubby nose)
Dd21		u	Bridge	u v	Head (Human)
–	Apple	u	Cliff	u	Rock
u	Crown	–	Foot	u	Toe
o	Face (Human, profile)	Dd28		Dd33	
–	Fist	o	Antennae	o	Bone (Skeletal)
–	Head (Animal)	–	Claws	o	Crayon
o	Head (Human)	–	Feet	u	Drill
u	Hut	u	Horns	o	Gorge
u	Landscape	–	Legs	u	Pole
u	Temple	–	Roots	o	River
u	Tent	u	Stingers (Insect)	o	Spine
–	Wart			o	Waterway

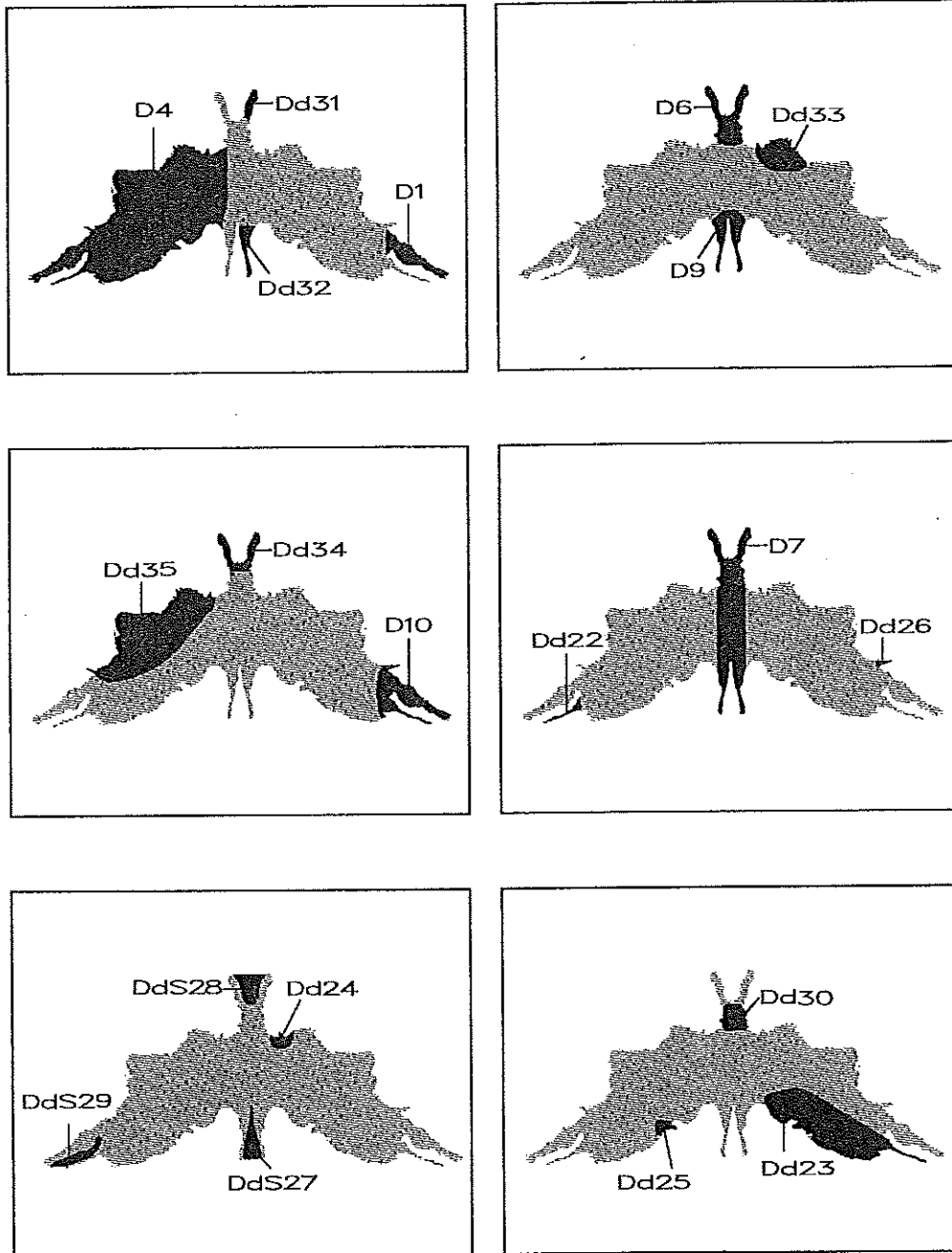


Figure A.5 D and Dd areas for card V.

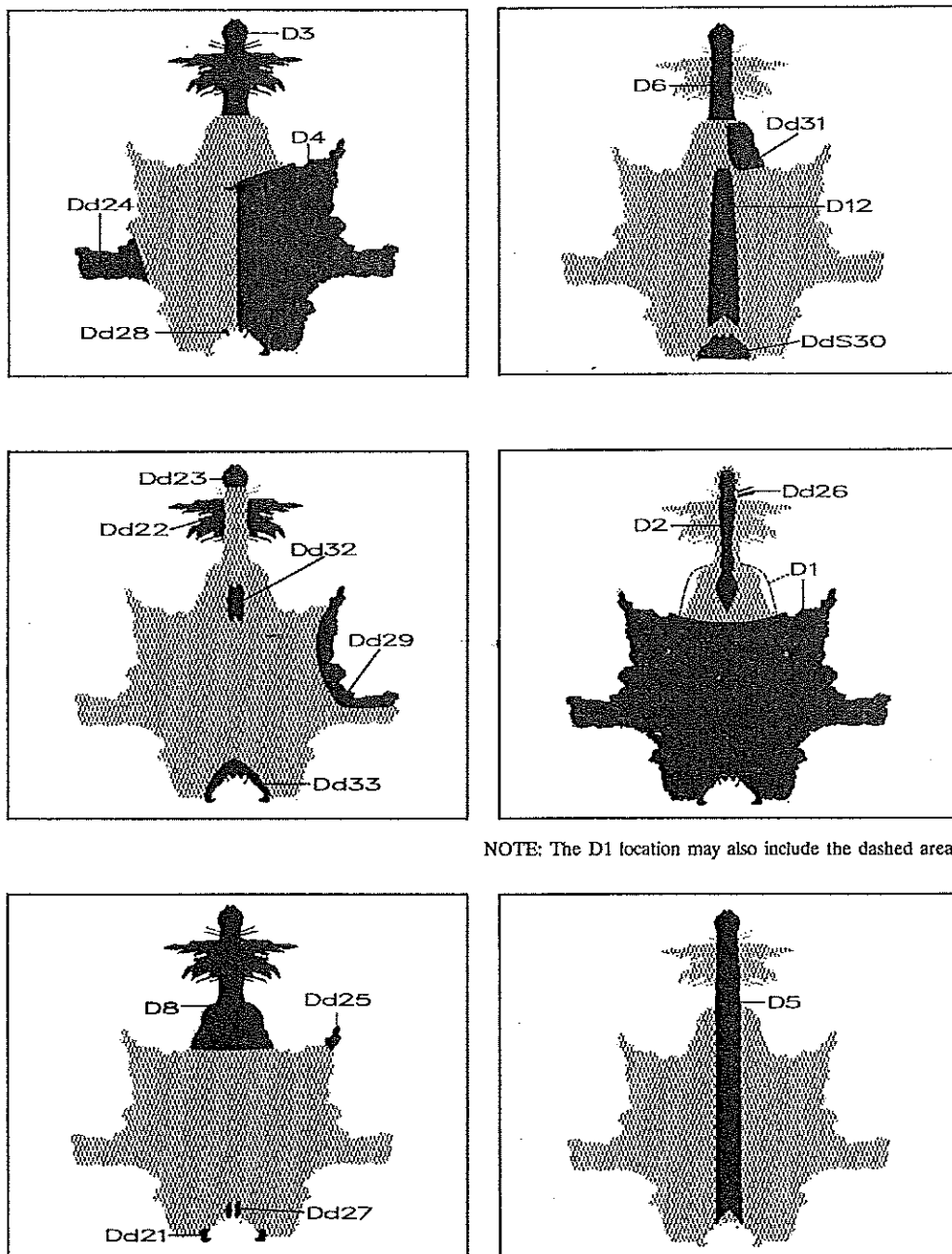
Table A.5 Figures Showing Common (D) and Unusual (Dd) Location Areas by Card, Listings of Ordinary (o), Unusual (u), and Minus (-) Responses and Response Classes by Location Areas, Plus Populars and Z Values for Each Card.

CARD V		Popular is to W: Bat or Butterfly	
		Z Values: W = 1.0 Adjacent = 2.5 Distant = 5.0 Space = 4.0	
W			
u v	Acrobat (Doing handstand)	u	Head
u	Airplane	u	Hill (With trees)
-	Anatomy	-	Hornet
-	Anchor	-	Human
u	Angel	o	Human (In costume)
-	Animals	o	Human (Hang gliding)
o	Animals (2 Butting heads)	o	Humans (Back to back)
-	Badge	u	Human-Like Figure (Specified with giant arms or wings)
-	Banana		
o	Bat	-	Ice
-	Beetle	-	Insect (Not winged)
o	Bird (Beak D6)	o	Insect (Winged)
u	Bird (Beak D9)	-	Kangaroo
o <	Bird (To midline, being reflected)	-	Kidney
u	Bookends	u	Kite
u	Boomerang	o	Landscape
-	Bug (Not winged)	u	Leaf
u	Bug (Winged)	-	Lung(s)
o	Butterfly	-	Machine
u	Cape	-	Map
-	Cat	-	Microorganism
u	Cloth (Piece)	u	Monster
u	Cloud(s)	u	Mosquito
-	Clove	o	Moth
u	Coal (Piece)	u	Mountain
-	Coat	u	Mustache
-	Coral	-	Neckbone
o	Crow	u	Ornament
o	Dancer (In costume)	u	Ostrich
u	Demon	u	Peacock
u	Devil (Sometimes winged)	u	Pelvis
o	Dracula	o v	Pelvis
u	Duck	-	Propeller
u	Eagle	u	Pterodactyl
-	Elves	-	Pump
-	Explosion	-	Ribs
u	Fairy	u	Rower (In boat)
-	Fern	-	Sailboat
-	Flag	-	Skeleton
u	Flea	u v	Smoke
u	Fly	u	Spaceship
u	Flower	-	Spider
u	Foliage	u	Stole (Fur)
u	Fur	u	Stone
-	Gnat	-	Tent
u	Goose	-	Tree Stump (Reflected)
-	Grasshopper	u <	Tornado (Reflected)
-	Hairpiece	-	Umbrella
		o	Vampire
		u	Vulture
		u	Wasp
		u	Wings
		u v	Wok (Cooking)
		o	X-ray (Pelvis)
		-	X-ray (Specific other than pelvis)
		u	X-ray (Unspecified)
		D1	
		u	Arm
		-	Arrow
		o	Bone
		-	Cylinder
		-	Eel
		-	Fish
		u	Foot (Animal)
		-	Foot (Human)
		-	Head (Animal)
		u	Head (Cartoon animal)
		-	Head (Human)
		o	Head (Reptile)
		o	Leg (Animal)
		o	Leg (Human)
		u	Limb (Tree)
		u	Log
		u	Muscle
		-	Nose
		u	Root
		u	Skull (Animal)
		-	Spear
		u	Stick
		-	Wrench
		D4	
		-	Alligator
		o	Animal (With head at D7)
		-	Anteater
		u	Blanket
		o	Bush(es)
		u	Cloud
		-	Crab
		-	Driftwood
		u	Fan
		u	Head (Alligator)
		-	Head (Animal)
		-	Head (Bird)
		o	Head (Human, profile)
		o	Human (Reclining)
		-	Insect

Table A.5 Continued.

D4 (continued)		D10	
— Jellyfish	u Vase	u Bones	
— Kangaroo	u Wishbone	u Coral	
u Landscape		— Head (Animal)	
— Leaf		u Head (Bird)	
— Leg		u Head (Cartoon)	
u Leg (As D1 in clothing)		o Head (Reptile)	
u Leg (Chicken or turkey cooked)		— Insect	
u Map		u Legs (Animal)	
— Mud		— Legs (Bird)	
— Plant		u Legs (Human)	
o Rock		— Nose	
u Shoulder Pad (Football)		u Peninsula	
— Skin		u Pincers (Crab)	
u Sleeping Bag		u Pipe Wrench	
o v Smoke		o Roots	
u < Swan		u Wood (Driftwood, logs or sticks)	
— Tree			
u Weed			
u < Wing			
D6		Dd22	
u Antennae		o Arrow	
— Badge		u Bayonet	
— Bird		u Crutch	
u Clippers		— Finger	
u v Elves		— Head (Animal)	
o Face (Animal, long eared)		u Head (Bird)	
— Face (Human)		— Head (Human)	
o Face (Human with mask)		— Insect	
— Face (Unspecified)		— Leg (Animal)	
u Fingers (2, As in victory sign)		u Leg (Bird)	
u v Forceps		— Leg (Human)	
u Hat (Mickey Mouse)		o Limb (Tree)	
o Head (Animal, with horns or long ears)		o Reptile	
u Head (Animal)		o Spear	
u Head (Insect)		o Sword	
— Head (Human)		o Tail	
o Head (Human, In costume or with mask)			
u < Head (Reptile)			
— Head (Reptile)			
u Human (Lower half)			
u Insect (With antennae)			
u Pliers			
u v Robot			
u v Sawhorse			
u Scissors			
u Slingshot			
u Statue			
— Tuning Fork			
u Tweezers			
D7		Dd23	
u Alien		u Coastline	
o Animal (Horned or long eared)		— Head (Animal)	
— Animal (Not horned or long eared)		— Head (Human)	
u Ballerina (In costume)		u Landscape	
— Beetle			
— Bone			
u Bug (With antennae)			
o Demon			
o Devil			
— Fish			
— Human (2)			
o Human (In costume)			
u Humans (2, with arms raised)			
u Human (Mythological)			
u Insect (With antennae)			
u Monster			
o Rabbit			
— Skeleton			
u Snail			
— Tree			
D9		Dd24	
u Beak		u Bird	
u v Bells		— Breast	
o v Birds (2, long-neck)		u Ghost	
u v Brooms		— Human	
u Chopsticks		u Monster	
u Clamp		u Nipple	
u Cleaners (Vacuum)		u Tent	
— Feet (Animal)		u Tree	
o Feet (Bird)			
— Feet (Human)			
o v Flamingos			
o v Geese			
u < Head (Alligator)			
— Head			
u Heads (2, Birds)			
— Insect(s)			
u Legs (Animal)			
o Legs (Bird)			
— Legs (Human)			
u Pliers			
— Stethoscope			
o Swans			
u Tail(s)			
o Tweezers			
— Vagina			
o Wishbone			

(continued)



NOTE: The D1 location may also include the dashed area.

Figure A.6 D and Dd areas for card VI.

Table A.6 Figures Showing Common (D) and Unusual (Dd) Location Areas by Card, Listings of Ordinary (o), Unusual (u), and Minus (-) Responses and Response Classes by Location Areas, Plus Populars and Z Values for Each Card.

CARD VI		Popular is to W OR D1: Animal Skin, Hide, Pelt, or Rug			
		Z Values: W = 2.5 Adjacent = 2.5 Distant = 6.0 Space = 6.5			
W					
u	Abstract Drawing	u v	Drill	-	Mountain
u	Airplane	u	Duck	-	Mud
-	Amoeba	u v	Duster (With handle)	-	Note (Musical)
-	Anchor	-	Emblem	u	Ornament
u	Animal (In natural form, canine or feline, such as cat, dog, lynx, tiger, wolf, etc.)	u	Explosion	-	Pan
-	Animal (In natural form, not canine or feline such as anteater, elephant, giraffe, etc.)	-	Face	o	Pelt
o	Animal (In unnatural form such as flattened, skinned, etc.)	o v	Fan	u v	Plant
u	Animal (Sea, such a ray with D3 as head or tail)	-	Faucet	u v	Pogo Stick
o	Animal Pelt or Skin	-	Fish (see also Animal, sea)	-	Pot
-	Animal (Winged)	u v	Flag	u	Raft
-	Artichoke	-	Flea	u v	Road Sign
u	Artifact (Indian)	u v	Flower	o	Rocket Launch (With rocket at D3 and pad or smoke at D1)
-	Badge	-	Fly	u	Rudder
-	Bat	u	Forest (Aerial view)	o	Rug
-	Bear	o	Fountain (Abstract)	u v	Scarecrow
o	Bearskin	-	Frog	u v	Shield
-	Bee	o	Fur Pelt	o <	Ship (Reflected with D3 as second object(s))
-	Beetle	-	Genitals (Male)	-	Shrimp
u	Bird	u	Gnat	-	Skeleton
u	Bird (Prehistoric)	u	Goose	o	Skin (Animal)
-	Body	u	Guitar (Sometimes Dd24 is excluded)	-	Snail
-	Brain	u	Gun (Space or toy)	-	Spider
-	Brainstem	o <	Hair	u v	Sponge
-	Bug (Not winged)	-	Iceberg (Reflected)	u	Squirrel (Flying)
u	Bug (Winged)	u	Insect (Not winged)	u v	Statue
-	Butterfly	u	Insect (Winged)	u v	Sting Ray
o	Candle (With D1 as base)	u v	Island	u	Sword in Stone
u	Cello	o <	Jackhammer	u	Tank (Top view with cannon)
-	Chest	u	Lamp	-	Tepee
-	Club	u	Landscape (Reflected)	o	Totem (As D3 with D1 as hill or expanse)
o v	Coat (Hanging on Post)	u	Leaf	o v	Tree
u	Coat (With hanger as D3)	u	Leather (Piece)	u	Turtle
u	Cocoon (With butterfly or larvae as D3)	u	Lighthouse (On hill)	u	Violin (Usually with Dd24 excluded)
-	Crab	-	Lizard (Flying)	-	Volcano
-	Crow	-	Lungs	o	Waterway (As D5 with other areas landscape)
-	Crown	-	Map (Specific)	-	X-ray (Specific)
u	Design (Abstract)	-	Map (Unspecified)	u	X-ray (Unspecified)
-	Doll	u v	Mask (Science fiction)	D1	
u	Dragon (Flying)	u	Mine Shaft (Cutaway view)	u	Amoeba
-	Dragonfly	u v	Mirror (Hand)	-	Anatomy
		o	Missile Launch (With missile at D6 and pad or smoke at D1)	u v	Animals (Back to back)
		u v	Monster (Sometimes 2 headed)	-	Artichoke
		u	Monster (Animal)	u	Badge
		u	Monster (Sea)		
		-	Mosquito		
		-	Moth		

Table A.6 Continued.

D1 (continued)					
u	Bib	o	Ornament	o	Totem Pole
o	Blanket	o	Pelt	u	Train (Aerial view)
—	Body	o	Pot (With handles)	—	Vertebrae
u	Bookends	u	Rock(s)	—	X-ray (Specific)
u	Bowl (With handles)	o	Rug	u	X-ray (Unspecified)
—	Brain	—	Shell		
—	Bug	u	Shield		D3
—	Butterfly	o	Ship (Reflected)	u	Airplane
u v	Cape	o	Skin (Animal)	—	Anatomy
u v	Cartoon Figures	—	Skull	—	Animal (Not winged)
—	Chest	u	Smoke	u	Animal (Winged)
u	Cloak	u	Sponge	o	Bird
u	Cloud(s)	—	Star	u	Bug (Not winged)
u	Coal (Piece)	—	Starfish	o	Bug (Winged)
o	Coat	o	Statues	u	Butterfly
u	Crevice (As middle area between rocks)	—	Turtle Shell	—	Coat Rack
u v	Crown	u	Urn	o	Cross (Abstract or modern)
—	Cup	o	Waterway (As D5 with other areas as landscape)	o	Crucifix (Abstract)
—	Disc (Anatomy)	—	X-ray (Specific)	u	Crucifixion
u	Doors (Swinging)	u	X-ray (Unspecified)	o	Duck (Flying)
u	Emblem			o	Emblem
—	Face		D2	—	Face
u	Face (Monster)	o	Alligator	u	Flag (Torn)
u	Filet (Fish or meat)	—	Animal	u	Flower
—	Flesh	o	Banister Spindle	u	Fly
—	Flower	o	Bedpost	u	Flying Fish
u	Foliage (Aerial view)	u	Bone	o	Goose (Flying)
u	Forest (Aerial view)	—	Bug	u	Head (Animal, with whiskers)
u	Gate	o	Candle	—	Head (Bird)
u v	Gorillas (Back to back)	o	Candlestick	—	Head (Human)
—	Head	—	Caterpillar	—	Head (Insect)
—	Heads (Animal)	u	Club	—	Head (Reptile)
u	Heads (Human, profile, back to back)	u	Crocodile	u	Hornet
u v	Hive (Bee)	u	Drill Bit	—	Human
—	Human	u	Eel	o	Human (Abstract)
u	Humans (Back to back)	—	Fish	o	Human (In costume)
u	Ice	o	Giant	o	Human-Like Figure
o v	Iceberg (Reflected)	o	Human	u	Insect (Not winged)
u	Island	o	Human-Like Figure	o	Insect (Winged)
u v	Jacket	—	Insect	o	Lamp
o	Landscape	u	Knife	—	Leaf
o	Leaf	o	Lamp (Ornamental)	o	Match (With fire)
—	Liver (Anatomy)	o	Lamp Post	u	Object (Burning with Dd22 as flames)
—	Lung(s)	o	Lamp (Street)	o	Ornament
u	Map (Specific)	u	Missile	—	Owl
u	Map (Topographic)	—	Nail	—	Penis
u	Map (Unspecified)	u	Needle	u	Pole (Electric or telephone)
u v	Monkeys (Back to back)	u	Pen	u	Rocket
u v	Monster (Usually science fiction)	u	Penis	o	Rocket (With fire or smoke)
u v	Monsters	u	Piston	o	Scarecrow
o <	Mountain Range (Reflected)	o	Reptile	u <	Shrub(s) (Reflected)
u	Mud	o	Rocket	—	Skull
		o	Statue (Human-like)	o	Statue
		u	Sword	u	Streetlight (May include D5)
			Thermometer		

(continued)

Table A.6 Continued.

D3 (continued)					
o	Totem Pole	u	Foliage (Aerial view)	–	Skull
u	Tree	o	Gorge	u	Statue
–	Valve	–	Human	u	Tower
u	Wasp	–	Insect	–	Valve
u	Weather Vane	–	Knife	u	Weapon (Unspecified)
		u	Lamp Post (Usually with <i>Dd22</i> as light)		
D4				D8	
o	< Aircraft Carrier	o	Missile Launch (With missile as <i>D2</i> or <i>D6</i> and remainder as smoke and/or fire)	u	Airplane
u	v Animal			–	Animal
o	< Animal (As <i>Dd24</i> and remainder as another object)	u	Pole	u	Bird
o	< Bathtub (With <i>Dd24</i> as another object)	u	Reptile	–	Bug (Not winged)
o	< Battleship	o	River	u	Bug (Winged, crawling from object)
o	< Boat (In some instances <i>Dd24</i> may be reported as a separate object)	o	Road	–	Butterfly
–	Building	o	Shaft	o	Cross (On hill)
u	Cloud	u	Snake	o	Crucifix (Abstract)
o	< Cloud	u	Spear	o	Crucifixion (On hill)
–	Cocoon	o	Spinal Cord	u	Dragonfly
u	Coral	u	Stick	o	Flower (In pot)
u	Crib (With <i>Dd24</i> as baby)	u	Thermometer	o	Fountain
u	< Explosion	–	Tree	u	Head (Animal, whiskered)
u	< Gun (Science fiction)	u	Tube	–	Head (Bird)
–	Head (Animal)	o	Waterway	–	Head (Human)
–	Head (Bird)	u	Worm	–	Head (Reptile)
o	Head (Human, profile)	–	X-ray (Specific, other than spine)	u	Human (Robed)
u	v Human	o	X-ray (Spine)	u	Insect (Winged)
u	v Human-Like Figure	u	X-ray (Unspecified)	u	Lamp Post
o	Iceberg			o	Lighthouse
–	Insect	D6		–	Map
o	Landscape	–	Animal	o	Plant
–	Map (Specific)	u	Arm (With fist at <i>Dd23</i>)	o	Rocket (With fire or smoke)
u	Map (Unspecified)	o	Bullet	o	Scarecrow
o	Mask	u	Cane	–	Spinal Cord
o	< Mountain(s)	u	Carving	u	Statue (Bird)
o	Rock	u	Club	o	Statue (Human-like)
o	< Rower (In boat)	u	Cylinder	o	Totem Pole
o	< Sailboat	u	Eel	u	Tree
o	< Ship	–	Fish	–	Turtle
o	Statue	–	Head (Animal)	–	X-ray
o	< Submarine	u	Head (Human)		
u	< Tank (Army)	u	Head (Reptile, usually turtle)	D12	
		–	Human	–	Arrow
		u	Insect	–	Burner (Bunsen)
		u	Log	o	Canal
		o	Missile	o	Candle
–	Animal	u	Mummy Case	o	Canyon
o	Backbone	–	Neck	o	Gorge
o	Bone	u	Parking Meter	–	Human
o	Canal	o	Penis	u	Missile
o	Canyon	o	Pole	–	Needle
–	Caterpillar	o	Reptile	u	Pencil
u	Coat Rack	u	Road	–	Penis
–	Eel	o	Rocket	–	Rectum
–	Fern	o		o	River
				u	Road
				u	Rocket

Table A.6 Continued.

Dd29			Dd29
o Shaft (Mine)	o Cliff	u Coastline	
u Spear	u v Head (Animal, with upper body)	— Head	
u Spinal Cord	— Head (Bird)	— Human Profile	
u Vagina	— Head (Human)		
o Waterway	— Leg		
u Zipper	— Paw		
Dd21		DdS30	
o v Claw	o Peninsula	— Cup	
— Hand	o Rock	u Inlet	
— Head (Animal)	o < Seal	— Vase	
o v Head (Bird)	o < Smokestack		
— Head (Human)	u < Statue		
o v Head (Reptile)	u < Walrus		
u v Horn	u Wood		
o v Pincer			
o v Tong			
Dd22		Dd31	
— Arms		u Bird	
u Birds (2, profile)		— Head	
u Branch(es)		— Human	
u < Cactus		u Iceberg	
o Feathers		— Nose	
u Flames		u Shaker (Salt or pepper)	
— Flowers			
u Geese (Flock)			
— Ice			
u Light Rays (Sun)			
— Pelt			
u Shrub(s)			
u < Tree(s)			
o Water (Splashing)			
o Whiskers			
Dd23		Dd32	
— Bug		u Boat	
— Eyes		— Brain	
u Fist		u Butterfly	
u Hands (Clasped)		u Clam (Opened)	
— Head (Animal)		— Eggs	
u Head (Bird)		— Eyes	
— Head (Human)		u Flames	
u Head (Insect)		— Kidney(s)	
u Head (Monster)		— Lung(s)	
u Head (Reptile)		u Oyster (Opened)	
— Heads (2)		u Shell (Opened)	
u Knob (Door)		— Tonsils	
— Nose		u Water Wings	
Dd24		Dd33	
u v Animal (Sitting)		u v Canyon (May include waterfall)	
— Boot		— Crab	
u v Castle		u Inlet	
		— Insect	
		u Landscape	
		o v Nest	
		— Spider	
		u Tongs	
		u Tweezers	
		u Vagina	
Dd25			
u Cactus			
u Carving			
u Doll			
u Foot (Human)			
— Head			
u Human			
u Mitten			
— Mountain			
u Paw			
— Penis			
u Shoe			
u Statue			
Dd26			
u Antennae			
— Reptiles			
u Sticks			
u Whiskers			
Dd27			
— Anatomy			
— Buttocks			
u v Eggs			
— Eyes			
— Heads			
— Humans			
— Pincers			
— Testicles			
— Vagina			
u v Waterfall			
Dd28			
u v Claws			
— Heads			
u Horns			
u v Reptiles			
— Rocket(s)			
— Trees			

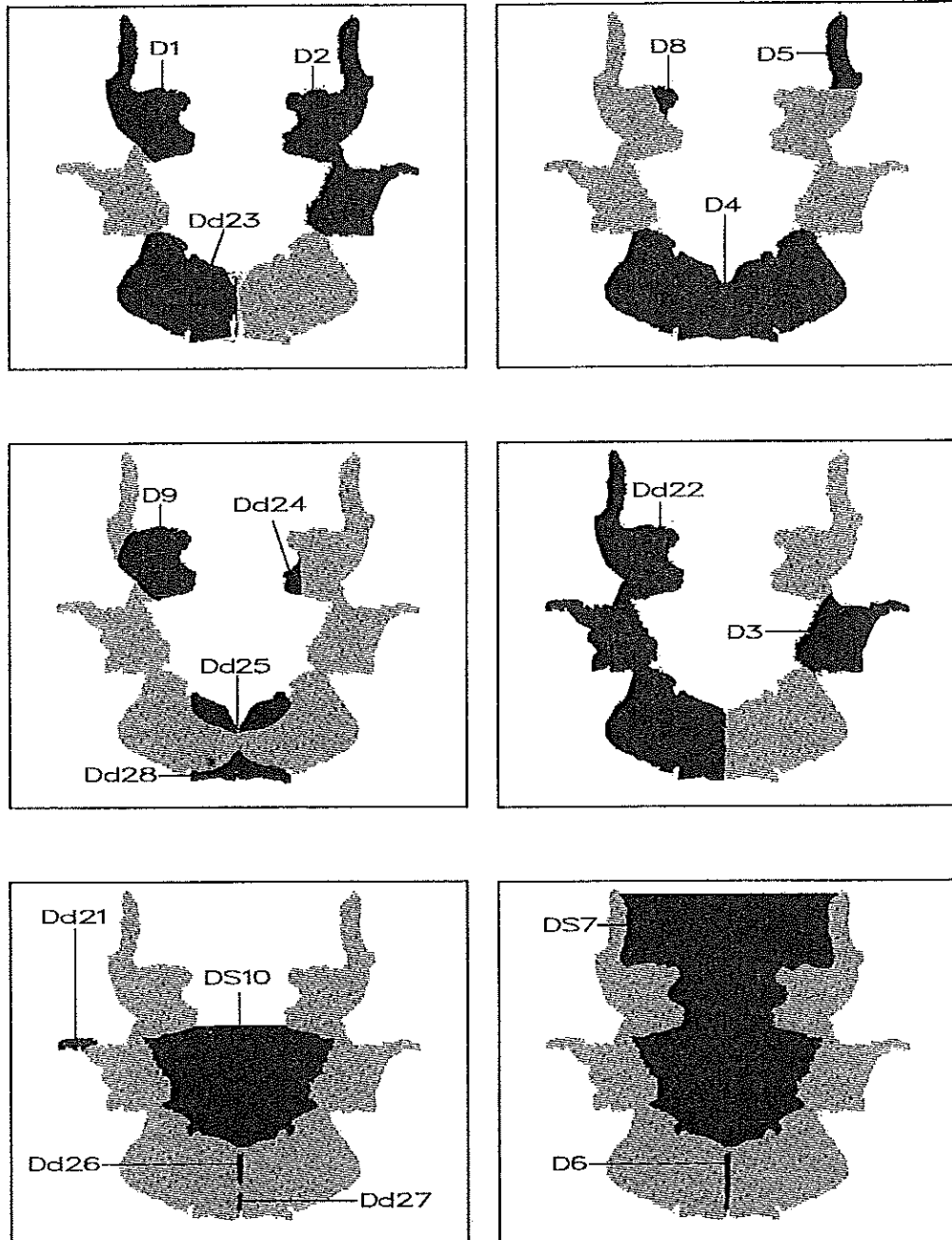


Figure A.7 D and Dd areas for card VII.

Table A.7 Figures Showing Common (D) and Unusual (Dd) Location Areas by Card, Listings of Ordinary (o), Unusual (u), and Minus (-) Responses and Response Classes by Location Areas, Plus Populars and Z Values for Each Card.

CARD VII		Popular is to D9: Human Head or Face—Often in D1, D2, Dd22			
		Z Values: W = 2.5 Adjacent = 1.0 Distant = 3.0 Space = 4.0			
W					
u	Abstract	o v	Dancers (2)	—	Mouth
—	Amoeba	—	Dogs	—	Neck
—	Anatomy	u	Dolls	—	Neckbone
—	Anchor	o	Dolls (As D2 with D4 as separate object)	u	Necklace
u	Animals (2, cartoon with each as one half of the blot)	u v	Doorframe	—	Plant
—	Animals (2, real, with each as one half of the blot)	o	Elves (As D2 with D4 as separate object)	u	Puzzle
o	Animals (2, as D2 and identified as cat, cartoon, monkey, or rabbit, with D4 as a separate object)	u v	Explosion (With D4 as mushroom cloud)	u	Reef
	Note: If the animals reported as D2 are not cat, cartoon, monkey, or rabbit, they should be coded as u if the contours are used in an appropriate way, or—in other cases. Examples of u include flat faced animals such as some dogs. Examples of—include fox, elephant, horse, lion, etc.)	—	Face	u	Rocks
		u v	Face (Photo negative and includes use of DS7 or DS10)	u	Rocking Horse
		o	Food (Breaded or fried)	u	Sculpture
		u	Food (Pieces, usually cut up fish or chicken)	—	Sea Animal
		—	Frogs	—	Shrimp (2, natural form)
		u	Frog Legs (Food)	u	Shrimp (4, Usually breaded or fried)
		o	Genies (D4 usually as lamp)	—	Shrub(s)
		—	Giant	—	Skull
		o v	Girls	u	Smoke
		o	Harbor (Includes DS7)	u	Snowmen
		u	Helmet (Ancient)	u	Spaceship
u	Antlers	u	Horseshoe	o	Statues (As D2 with D4 as base)
u v	Arch	—	Human	u	Stool
—	Beard	o	Human-Like Figures (Usually angels, snowmen, or spirits, often with D4 as separate object)	u	Swing
—	Bird	o	Humans (2)	—	Table
—	Body (Lower half)	o	Humans (As D2 with D4 as separate object)	u v	Trellis
—	Body (Split)	o v	Humans (2)	u	"U"
u	Bones (Unspecified)	—	Insect	—	Vagina
u	Boomerang	o	Island(s)	u	Vase
u	Bowl (Usually involves S)	—	Keel (Boat)	u v	Wig
—	Bug	u v	Lamp (Ornamental)	—	X-ray (Specific)
—	Butterfly	u	Landscape (Usually viewed from above, but sometimes when S is used, viewed as a valley between cliffs)	u	X-ray (Unspecified)
o	Canyon (Usually involves S)	—	Leaf	D1	
u v	Cap (With ear flaps)	u	Leaf (Torn)	—	Anatomy
u	Carving	u v	Legs (Animal or human)	—	Animal
u v	Cave (Opening)	—	Magnet	u v	Animal (Small, long tail with nose at Dd24)
o v	Chair (Includes use of DS7)	—	Map (Specific)	u <	Animal (Cartoon with D5 as long nose or beak)
o	Children (With D4 as separate object such as cushions, see-saw, etc.)	u	Map (Unspecified)	u	Art (Abstract)
u	Claw (Crab)	—	Monument	—	Bird
o	Cloud(s)	u	Moth	u	Cactus
—	Coat	—		u v	Cap (Coonskin)
—	Cookie (Includes broken)	u v		—	Cat
—	Conch Shell	—		u	Chair
—	Cracker (Includes broken)	—		—	Chicken
u	Crown	u		u	Chicken leg (Cooked)

(continued)

Table A.7 Continued.

D1 (continued)		D2		D3		D4	
—	Eagle	o	Animal (Small, with D5 as ear, and Dd21 as tail, such as cat, dog, monkey, rabbit)	—	Animal	—	Anatomy
u	Earrings	o	Animal (Cartoon)	—	Beard	—	Animal(s)
—	Fish	—	Animal (Large)	u	Candy (Cotton)	u	Basket
u	Fist (With finger pointing upward)	—	Animal (Cartoon)	—	Cap	o	Bat
u	Foliage	—	Bird	u	Cleaver	o	Bird
o	Head (Animal, as cat, cartoon, monkey, or rabbit) (Note: If animal head reported is not cat, cartoon, monkey or rabbit, it should be coded as u if the contours are used appropriately as for some dogs heads, or—if that is not the case)	o	Bush(es)	—	Cliff	u	Book (Open)
u	Head (Animal, with D5 as trunk)	o	Cherub	u	Cloud	u	Bookends
o	Head (Human, as child, Indian, female or unspecified)	—	Chicken	—	Cup	—	Boots
u	Head (Human, adult male)	u	Chicken Wings (Breaded or fried)	—	Dog	o	Bow
o	Head (Human-like)	o	Cloud(s)	u	Fish (Tail as Dd21)	—	Bowl
—	Horse	—		—	Fist (Thumb as Dd21)	u	Bowtie
—	Insect	—		—	Hairpiece	—	Bridge (Man made)
u	Ladle	—		—	Ham	u	Bridge (Natural)
u	Landscape	—		—	Hand	—	Bug (Not winged)
—	Map (Specific)	—		o	Head (Animal, with Dd21 as ear or horn)	u	Bug (Winged)
u	Map (Unspecified)	—		u	Head (Animal, with Dd21 as nose or trunk)	o	Butterfly
u	Mask	—		o	Head (Animal, cartoon or toy)	—	Buttocks
—	Mountain	—		—		—	Carcass
o	Rabbit (With nose as D8)	—		—		—	Chest
u	Rudder	—		—		o	Cloud(s)
—	Sea Animal	—		—		u	Cradle
o	Shrimp (Breaded or fried)	—		—		u	Cushion(s)
o	Statue	—		—		u	Doors (Swinging)
—	Tree	—		—		—	Emblem
—	X-ray	—		—		—	Fly
		—		—		u	Gate
		—		—		u	Hang Glider (May include D6 as person)
		—		—		—	Head
		—		—		—	Human
		—		—		—	Insect (Not winged)

Table A.7 Continued.

D4 (continued)					
u	Insect (Winged)	u	Leg	—	Bell
u	Kite	—	Log	o	Bowl
u	Landscape	—	Penis	—	Cloud
—	Lung(s)	u	Pick (Guitar)	u	Entrance
—	Map (Specific)	u	Plant	—	Face
u	Map (Unspecified)	—	Rifle	o	Harbor
—	Mountain(s)	u	Sabre	u v	Hat (Historical)
u	Paper (Torn)	—	Sausage	—	Head
o	Pelvis	u	Saw	u v	Head (Negative as in photo)
u	Plateau (Aerial view)	—	Smoke	u v	Helmet
—	Rib Cage	u	Stalagmite	u	Lake
o	Rock(s)	u	Sword	o v	Lamp
—	Sea Animal	u	Tail (Long such as racoon)	o v	Mushroom
—	Shell	u	Thumb	u v	Pagoda
—	Shoes	u	Totem	u	Pot
—	Shrub(s)	—	Tree	o v	Sphinx
—	Skull	u	Wing	o v	Statue
—	Tent	—	Worm	u v	Temple with dome
—	Vagina			—	Tree
u v	Wig			u	Vase
u	Wings				
o	X-ray (Pelvis)				
—	X-ray (Specific, other than pelvis)				
u	X-ray (Unspecified)				
D5		D6		D8	
—	Animal	—	Animal	u	City (In distance)
—	Arrow	u	Anus	u	Cliff(s)
u	Arrowhead	—	Bone	—	Dragon
—	Bird	—	Bug	o	Forest
o	Blade (Knife)	o	Canal	—	Head
u <	Boat	o	Canyon	u	Humans (Several on cliff or hill)
u	Bone	—	Caterpillar	u v	Icicles
u <	Canoe	u	Clitoris	o	Landscape
u	Caterpillar	u	Crack	u	Nest
u	Claw	u	Dam	u	Sea Animal
u	Comb (Decorative)	u	Doll	u	Snail
—	Drill	—	Drill	u	Snail (Cartoon)
u	Ears (Long as in rabbit)	—	Fish	u	Stalagmites
—	Eel	o	Gorge	u	Towers (Electric)
o	Feather	o	Head	u	Trees
u	Finger	o	Hinge (Door)	o	Village
—	Gun	o	Human	u	Whale
u	Hair (Groomed or styled as in hairpiece or pony tail)	o	Human-Like Figure		
—	Head (Animal or human)	—	Insect		
u	Head (Rabbit with nose on outside)	u	Missile (Often with Dd28 as pad or smoke)		
u	Headdress	u	Monster (Animal)		
u	Horn	—	Penis		
—	Human	o	River		
u v	Icicle	u	Rocket (Often with Dd28 as pad or smoke)		
—	Insect	—	Spine		
		u	Stick		
		—	Tower		
		—	Tree		
		o	Vagina		
		o	Waterway		
DS7		D9			
—	Anatomy	u	Cliff		
u	Arrowhead	u	Cloud		
		o	Head (Animal, small such as cat, dog, monkey, etc.)		
		—	Head (Animal, large)		
		u v	Head (Animal)		
		—	Head (Bird)		
		o	Head (Human)		
		o	Head (Human-like)		
		—	Insect		
		u	Landscape		
		—	Sea Animal		
		o	Statue (Bust)		

(continued)

Table A.7 Continued.

Table A7 Continued

DS10			Bones		Dd26
o	Bowl	–		o	Canyon
u	Doorknob	u v	Doll	o	Gorge
u	Entrance	o	Human	u	Human
–	Face	o	Human-Like Figure	u	Human-Like Figure
o	Harbor	u v	Human	o	River
o v	Hat (Historical)	u	Puppet	o	Statue
–	Head	u	Statue	o	Vagina
o	Helmet				
u	Hole				
u	Lake				
o	Lampshade				
u v	Mushroom (Cap)				
–	Penis				
u	Tent				
Dd21		Dd23		Dd27	
–	Ant	–	Animal	–	Animal
u	Arm	u	Brick	u	Anus
–	Bird	u	Cloud	–	Human
u	Caterpillar	u	Hat (Fur)	–	Lock
–	Face	–	Head (Animal except bear or dog)	–	Teeth
o	Finger	o	Head (Animal, bear or dog)	–	Vagina
u	Hand	–	Head (Human)	–	Window
–	Head	u	Hill		
u	Horn	u	Pillow		
u	Paw	u	Rock		
u	Peninsula	–	Shoe		
–	Penis				
–	Rifle				
u	Tail				
u	Thumb				
u	Trunk (Elephant)				
Dd22		Dd24		Dd28	
–	Animal	u	Cave	–	Animal
u	Animal (Cartoon or toy)	–	Cloud	–	Bird
		u	Dirt	–	Buttocks
		–	Head	u	Face (Animal)
				–	Face (Human)
				u	Face (Monster)
				u	Humans (2)
				u v	Parachute (With D6 or Dd26 as person)
				–	Plant
				u	Statue(s)
				u	Water
				o v	Waterfall
				u v	Waves

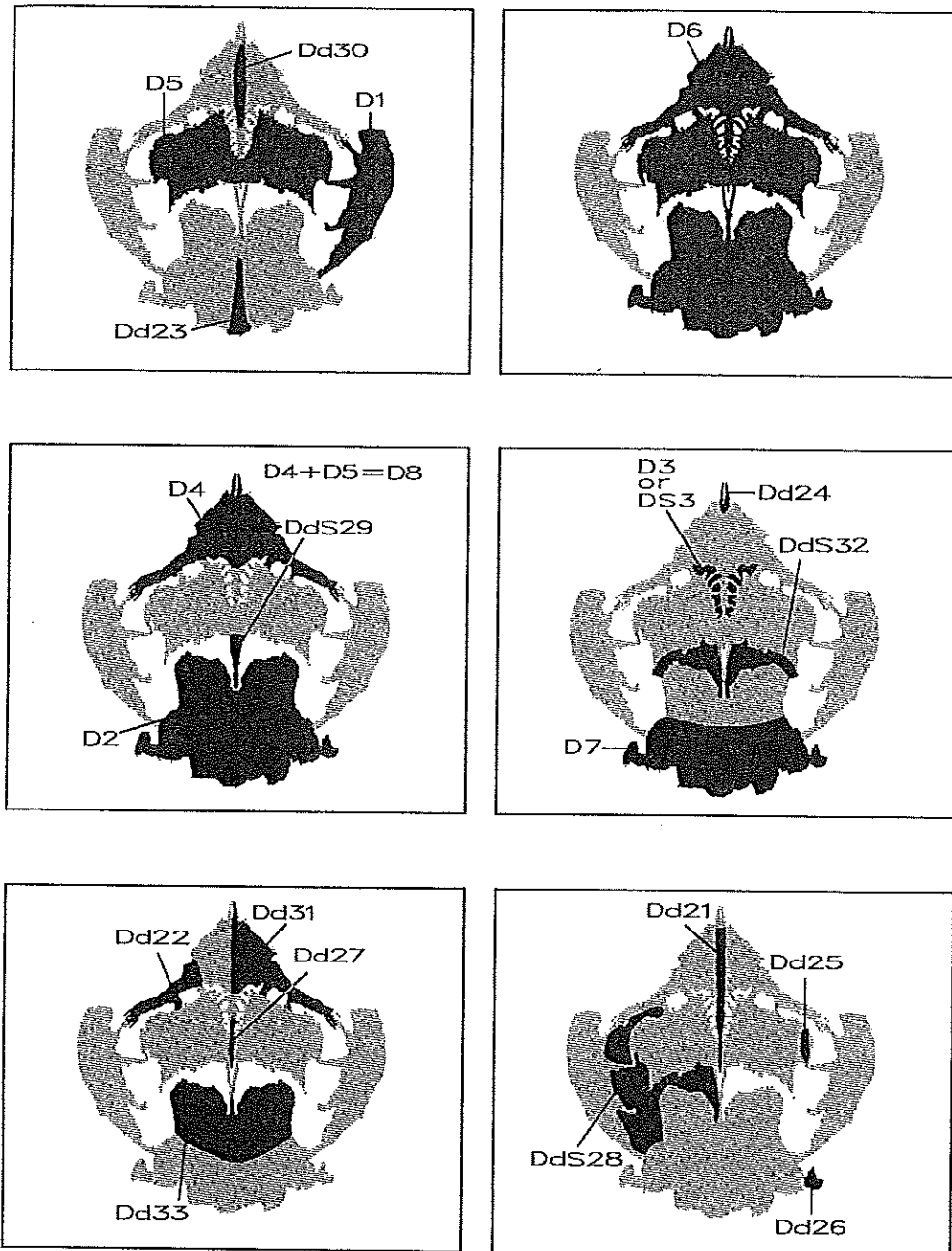


Figure A.8 D and Dd areas for card VIII.

Table A.8 Figures Showing Common (D) and Unusual (Dd) Location Areas by Card, Listings of Ordinary (o), Unusual (u), and Minus (-) Responses and Response Classes by Location Areas, Plus Populars and Z Values for Each Card.

CARD VIII		Popular is to D1: Whole Animal Figure			
		Z Values: W = 4.5 Adjacent = 3.0 Distant = 3.0 Space = 4.0			
W					
-	Airplane	-	Human	-	Skull
-	Anatomy (Specific)	u v	Ice Cream (Melting)	-	Snowflake
o	Anatomy (Unspecified)	-	Insect	u	Spaceship (Usually with flames)
-	Animal	u	Intestines	-	Spider
o	Animals (As D1 with other areas identified as object(s) that are consistent with contours)	-	Island(s)	u	Statue
		-	Jacket	-	Stomach
		u	Jellyfish	u v	Top
		-	Jewelry	u v	Torch
o	Art (Abstract)	u	Kidney(s)	u	Totem Pole
u	Badge	u	Kite	-	Tree
-	Bat	u	Lamp (Decorative)	u	Tree (Abstract or cartoon)
-	Bird	o	Landscape (Often an aerial view)	u	Trophy
o	Boat (With sails, front view)	u	Lantern (Oriental)	u	Vase
-	Bones (Skeletal)	u	Leaf	u	Vegetation (Tropical)
o	Bowl (Ornamental)	u	Lights (Colored as created by strobes)	u	Vegetation (Underwater)
-	Brain	-	Lobster	u	Volcano (Erupting)
-	Butterfly	-	Lung(s)	-	X-ray
u	Cage (Bird)	-	Machine		
-	Cake	-	Map (Specific)		
o	Carousel	u	Map (Unspecified)		
o	Chandelier	u	Mask		
o	Christmas Tree	-	Meat		
u	Circus Tent	o	Medical Illustration (Parts are representative rather than real)		
-	Cloud(s)	u	Monster		
o	Coat-of-Arms	u	Monument		
u	Coral	-	Moth		
-	Crab	u	Mountain		
u	Crown	u	Mountain and Forest (Distant view)		
o	Design (Abstract)	o	Ornament		
o	Emblem	u	Pagoda		
-	Explosion	-	Pelvis		
-	Face	o	Plant (Often in pot)	u	Animal (Prehistoric)
u	Face (Clown)	o	Poster (Abstract)	-	Bird
u	Face (Monster)	u	Poster (Nature)	u	Blood
-	Fish	-	Pyramid	-	Camel
u	Flag	u	Robot	u	Chameleon
o	Floral Design	u	Rocket	u	Demon
o	Flower	u	Rocks (Colored)	-	Dolphin
u	Foliage	u	Rubbish	-	Fish
o	Fountain	u	Rug (Oriental)	-	Flower
-	Frog	u	Scarab (Beetle pin)	-	Frog
u	Garden	-	Sea Animal	-	Human
u	Gazebo	u	Sea Shell	u	Iguana
-	Head (Animal)	o	Ship (With sails, view from end)	-	Insect
-	Head (Bird)	-	Skeleton	u	Lizard
-	Head (Human)			-	Lung
-	Head (Insect)				
u	Head (Monster)				
u	Headdress (Ornamental)				
u	Helmet (Science fiction)				
				D1	
				-	Anatomy
				o	Animal (Four legged, and appropriate to contours. This class of response includes a wide variety of animals, including some considered to be prehistoric. The most commonly reported include the badger, bear, cat, dog, gopher, lion, mouse, opossum, rat, and wolf. Four legged animals that are not appropriate for the contours should be coded as -, such as elephant, giraffe, horse, kangaroo, etc.)
				u	Animal (Prehistoric)
				-	Bird
				u	Blood
				-	Camel
				u	Chameleon
				u	Demon
				-	Dolphin
				-	Fish
				-	Flower
				-	Frog
				-	Human
				u	Iguana
				-	Insect
				u	Lizard
				-	Lung

Table A.8 Continued.

D1 (continued)					
-	Parrot	u	Leaf	u	Castle (On mountain)
u	Petal (Flower)	u	Map (Unspecified)	u	Cliff(s)
-	Porpoise	u v	Mask	-	Cloud
-	Reptile (Other than chameleon, iguana or lizard)	-	Meat	u	Crab
-	Scorpion	u	Mountain(s)	-	Crawfish
-	Seal	u	Painted Desert	-	Crown
-	Shrimp	-	Pelvis	u	Dragon
-	Tree	u	Pot	-	Face
-	Turtle	u	Rock(s)	u	Face (Science fiction)
-	X-ray	u	Rug	-	Fish
		u	Scab	o	Frog
		-	Skull	-	Hat
		u	Slide (Biological)	-	Head (Animal or human)
		-	Stomach	u	Head (Science fiction)
		-	Vagina	-	House
		-	Vertebrae (Cross section)	-	Human(s)
		u	Volcano	u	Ice
D2					
-	Anatomy		D3/DS3		
-	Animal	u <	Animal (Reflected)	u	Iceberg
-	Bat	-	Badge	u	Insect
u	Blood	o	Bone Structure	-	Jellyfish
u	Bowl (Decorative)	-	Cave	u	Lichen (On rock)
-	Brain	u	Corset	u	Lizard (Front view)
o	Bug	-	Door	-	Lobster
-	Butterfly	-	Face	u	Mask (Science fiction)
-	Buttocks	-	Head	o	Monster
u	Cake	u	Ice	o	Mountain
u	Canyon	-	Mask	-	Octopus
u v	Cape	o	Net	u v	Pelvis
-	Chest	-	Rib Cage	u	Robot
u v	Coat	o	Skeleton (Partial)	u	Rock
u	Coral	o	Skull (Animal)	u	Rocket
-	Crab	-	Skull (Human)	o	Roots
-	Crown	u	Snow	-	Scorpion
-	Disc (Spinal)	u v	Spaceship	u	Sea Animal
-	Dog	u v	Tent	u	Shrub(s)
-	Emblem	u v	Tepee	-	Skull
u	Fire	u v	Tree (Fir)	o	Spaceship
-	Flesh	o	Vertebrae	u	Spider
o	Flower	-	Web	u	Stump (Tree)
-	Frog	D4			
-	Hat	(Note: D4+D5 = D8)			
u v	Head (Animal, short eared or horned)	u	Airplane (Jet, front view)	D5	
-	Head (Animal, not short eared or horned)	-	Animal	(Note: D4+D5 = D8)	
-	Head (Bird)	u	Animal (Prehistoric)	-	Animal
-	Head (Human)	u v	Antlers	u	Bat
-	Head (Insect)	-	Bat	u	Bird
u v	Head (Monster)	u v	Boomerang	o	Bird (Prehistoric or science fiction)
o	Ice Cream	-	Bridge (Man made)	-	Bone
-	Insect	u v	Bridge (Natural)	o	Butterfly
u v	Jacket	-	Butterfly		
u	Jello				
u	Kite				
u	Landscape				
o	Lava				

(continued)

Table A.8 Continued.

D5 (continued)					
u	Cliff(s)	u	Pagoda	u	Tent
o	Cloth	o	Plant	u	Tree
u	Cloud(s)	u	Rocks	Dd21	
u	Corset	u	Sea Shells	—	Animal
—	Face	u	Ship (With sails, view from end)	o	Bone (Skeletal)
o	Flags	u	Spaceship	—	Esophagus
—	Flower	u	Statue	—	Human
—	Head(s)	o	Tree	u	Knife (And case)
o	Ice	u	Vegetation	u v	Missile Launch
—	Kidney(s)	u	Waterfall (As center with vegetation around)	o	River
o	Lake	D7		u	Rockets (Separating stages)
o	Landscape (Often as aerial view)	—	Animal	—	Spear
—	Leaves	—	Bird	o	Spinal cord
—	Lung(s)	o	Blood (Usually dried)	u	Stick(s)
u	Paper (Torn)	u	Butterfly	u	Waterfall
—	Pelvis	—	Buttocks	o	Waterway
u	Pillow(s)	u	Canyon	Dd22	
—	Rib Cage	—	Chest	—	Animal
u	Rocks	—	Face	o	Arm (Human)
u	Sails	—	Head	u	Branch
u	Shrubs	—	Horns (Rams)	u	Claw
—	Skull	u	Ice Cream	u	Feet (Animal)
—	Sky	o	Jacket	u	Glove
o	Water	u v	Jello	u	Hand
—	X-Ray	u	Landscape	u	Horn (Animal)
D6		u	Leaf (Autumn)	u	Root
—	Anatomy (Specific)	u	Mountain	Dd23	
o	Anatomy (Unspecified)	u	Painted Desert	u	Anus
u	Art (Abstract)	o	Rocks	u	Candle (Altar)
—	Bird	u v	Vest	u	Canyon
—	Bones	D8		—	Face
—	Brain	(Note: D4+D5 = D8)	—	u	Flask
o	Bush	—	Anatomy	—	Head
u	Chandelier	u	Bird	—	Human(s)
o	Christmas Tree	—	Butterfly	u	Vagina
—	Crab	u v	Chandelier	u	Vase
—	Face	—	Crab	u	Waterfall
o	Flower	—	Face	Dd24	
u	Glacier	u	Floral Display	u	Antennae
—	Head	—	Flower	u	Arrow
u	Helmet (Science fiction)	u	Glacier	—	Birds
—	House	—	Head	u	Beak (Bird)
—	Human	u	Helmet (Science fiction)	u	Feelers
u	Insect	u	Landscape	u	Fingers
u	Island(s)	u	Mask	u	Horns
u	Kite	u	Pagoda	—	Human(s)
u	Lamp (Oriental)	o	Plant	u v	Legs (Human)
o	Landscape (Often aerial view)	u	Rocket	u	Pincers
—	Lobster	u	Shack (House)	u	Roots
u	Mask	—	Shell	—	Teeth
o	Mountain	o	Spaceship	o	Trees
u	Ornament				

Table A.8 Continued.

Dd25		DdS28			
u	Alligator	u	Cloud(s)	–	Reptile
–	Animal	u	Snow	u	Root(s)
–	Bird	u	Water	–	Wing
–	Fish				
u	Island				
–	Penis				
u	Spaceship				
u	Statue				
Dd26		DdS29		DdS32	
u v	Cliff	u v	Bottle (Milk)	u	Albatross
u <	Dog	u v	Bowling Pin	o	Bird
u <	Head (Animal)	–	Ghost	u	Butterfly
–	Head (Bird)	u v	Salt Shaker	o	Gull
–	Head (Human)	–	Statue	o	Snow
u	Horns	–	Tooth	u	Water
u	Rock	u v	Triangle (Music)		
u <	Statue	u <	Whale		
Dd27		Dd30		Dd33	
u	Alligator	u v	Cane	–	Anatomy
u	Bone	u	Gorge	u	Butterfly
u	Drill Bit	u	River	–	Face
u	Hypodermic	u	Snake	u	Flower(s)
u	Knife	o	Spinal Cord	u	Head (Animal)
u	Missile	o	Stick	–	Head (Bird)
–	Needle	–	Sword	–	Head (Human)
u	Pen	u	Waterfall	u	Ice Cream
u	Rocket			–	Lung(s)
u	Spear			u	Rock(s)
–	Worm				
		Dd31			
		–	Animal		
		–	Crab		
		–	Insect		
		u	Monster (Animal-like)		

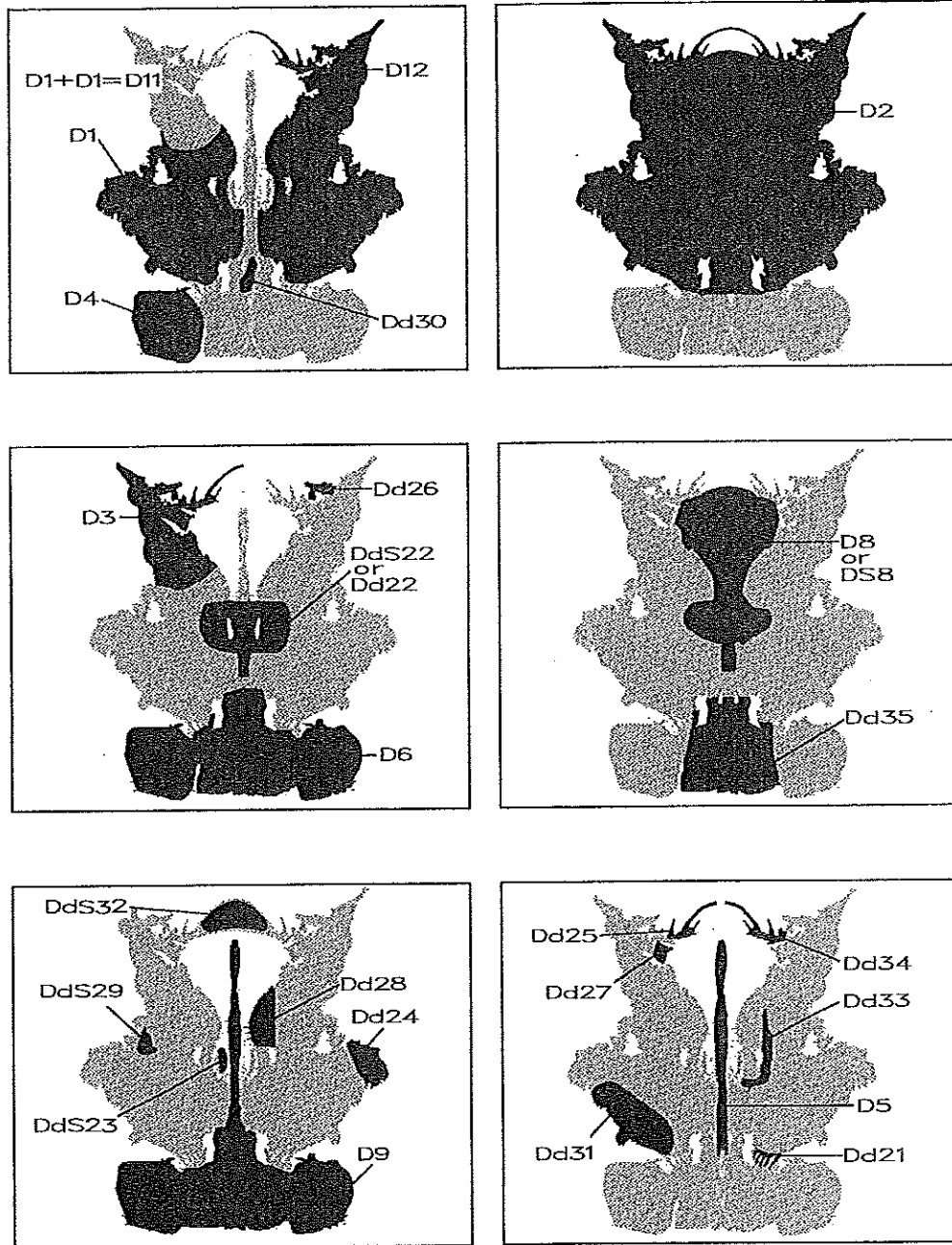


Figure A.9 D and Dd areas for card IX.

Table A.9 Figures Showing Common (D) and Unusual (Dd) Location Areas by Card, Listings of Ordinary (o), Unusual (u), and Minus (-) Responses and Response Classes by Location Areas, Plus Populars and Z Values for Each Card.

CARD IX		Popular is to D3: Human or Human-Like Figures	
		Z Values: W = 5.5 Adjacent = 2.5 Distant = 4.5 Space = 5.0	
W		D1	
-	Anatomy	u	Head (Monster)
u	Anchor	o	Headdress (Ceremonial)
-	Ant	u	Helmet (Science fiction)
o	Art (Abstract)	-	Human
u	Badge	u v	Human (In costume)
-	Bird	u v	Human-Like Figure
o v	Birds (As D3 under tree)	o	Illustration (Medical)
o	Bowl (Ornamental)	-	Insect
u	Bridge (Top area over forest)	u	Island
-	Butterfly	u v	Jellyfish
u	Cactus	u	Lamp (Kerosene)
u	Cake (With D3 as candles)	u v	Lamp (Ornamental)
o	Canyon (As D8 with other areas as foliage and/or landscape)	o	Landscape
u v	Cape (Theatrical)	o <	Landscape (Reflected)
u	Chair (Winged with D6 as base or swivel)	-	Leaf
u v	Clothing (Woman's)	-	Lung(s)
-	Cloud(s)	-	Machine
-	Cocoon	-	Map (Specific)
o	Coral	u	Map (Unspecified)
-	Crab	o	Mask
u	Crater (As D8 with other areas as foliage and/or landscape)	u	Monster
u	Decoration	u	Ornament
u v	Doll	o	Paint
u v	Dummy (Dressmaker's)	o	Palette (Artist's)
u v	Elephant (Cartoon)	o	Plant (Sometimes with D6 as pot)
u	Emblem	u v	Robot
o	Explosion	u	Rocket (As D5, with smoke and flames)
-	Face	-	Rug
u	Face (Clown)	u	Salad (Usually in bowl)
u	Face (Monster)	-	Sea Animal
o	Fire (Usually with D1 as smoke)	u	Seaweed
o	Floral Arrangement	-	Seed
o	Flower (Often with D6 as pot)	-	Skull
-	Fly	u v	Spaceship
o	Foliage	-	Throat
o	Forest Fire	u	Throne
o	Fountain	u v	Tree
o	Garden	-	Vagina
u	Hat	o	Vase
-	Head (Animal)	o	Vegetables (D3 as carrots, D1 as lettuce, D6 as tomatoes)
-	Head (Human)	u	Volcano
-	Head (Insect)	o	Waterfall (As D5 with other areas as foliage and/or landscape)
		u v	Wizard
		-	X-ray
		u <	Monkey

(continued)

Table A.9 Continued.

D1 (continued)			
u <	Monster	o	Headress (Ceremonial)
-	Mushroom	u	Helmet
u v	Pig	-	Human
u	Plant	u	Illustration (Medical)
u <	Rabbit	-	Insect
u	Rock	u v	Jellyfish
-	Sea Animal	o	Landscape
u	Seaweed	o <	Landscape (Reflected)
o	Shrub	u	Leaf (Autumn)
u	Smoke	u	Lobster & Seaweed
u	Sponge	-	Map
u <	Statue	o	Mask
-	Tree	u	Ornament
-	Wing	u	Painting (Abstract)
-	X-ray	o	Plant
		-	Sea Animal
		-	Skull
		o v	Tree
		u	Vagina
		o	Vase
		u v	Waterfall (As D5 with other areas as foliage and/or landscape)
D2		D3	
-	Anatomy	-	Anatomy
o	Anchor	o	Animal (Antlered or horned)
u	Art (Abstract)	-	Animal (Not antlered or horned)
u	Badge	u	Bird
-	Bird	o v	Bird
o v	Birds (As D3 under bush)	u	Blood
o	Bowl	-	Bone
-	Bug	-	Bug
-	Butterfly	u	Carrot
o	Canyon (As D8 with other areas as foliage and/or landscape)	o	Cliff
u	Chair (Wing)	u	Cloud
-	Clothing	o	Clown
-	Cloud(s)	-	Club
u	Clouds and Lightning	u	Crab
u	Coral	o	Dancer (In costume)
-	Crab	o <	Deer
o	Crater (As D8 with other areas as foliage and/or landscape)	o	Demon
u	Dragon	-	Dog
u	Emblem	u	Dragon
u	Explosion	-	Face
-	Face	o	Fire
o	Face (Clown)	-	Fish
u	Face (Monster)	o	Flower
o	Fire (As D3 with other areas as smoke)	o	Ghost
o	Flower	o v	Gnome
-	Fly	o	Head (Animal, antlered or horned)
u	Foliage	-	Head (Animal, not antlered or horned)
u	Fountain	u	Head (Human)
u	Garden	u	Head (Human-like)
-	Head (Animal)	-	Head (Insect)
-	Head (Human)		
u	Head (Human-like)		
-	Head (Insect)		
		o	Head (Human-like)
		-	Head (Insect)
		o	Hill
		u	Horns
		o	Human
		o	Human Like-Figure
		-	Insect
		o	Landscape
		o	Lava
		-	Leg
		u	Lobster
		-	Lung
		u	Map (Unspecified)
		-	Meat
		u v	Owl
		o v	Parrot
		u	Plant
		-	Rodent
		u v	Roots
		o	Sand
		-	Sea Animal
		u	Sea Horse
		-	Shrimp
		u	Statue
		u	Sun Spot
		u	Torch
		o	Toy (For punching)
		-	Tree
		u	Wing
		o	Witch
		D4	
		-	Anatomy
		o	Apple
		o	Ball
		u	Blood
		-	Bug
		o	Candy (Cotton)
		-	Cocoon
		-	Eye
		-	Fish
		u	Flower
		u	Head (Animal)
		o <	Head (Human)
		u	Ice cream
		u	Mask
		-	Meat
		-	Pot
		o	Raspberry
		u	Rock
		u	Roses
		u	Sea Shell
		-	Sperm
		u	Sponge
		u	Strawberry
		-	Turtle

Table A.9 Continued.

D5			
u	Alligator	–	Head (Animal)
–	Anatomy	u	Head (Cartoon)
–	Animal	u v	Head (Elephant or rodent)
u	Arrow	u v	Head (Insect)
o	Bone	o <	Head (Human, reflected)
o	Candle	–	Human
u	Cane	o <	Human (Sitting, reflected)
u	Drill Bit	–	Insect
–	Esophagus	–	Island
u	Flame	u	Marshmallows
u	Geyser	–	Meat
u	Gorge	u v	Mushroom
–	Head	–	Pot(s)
–	Human	u	Powder Puff
–	Insect	u	Radishes
o	Landscape	u	Raspberries
o	Match	u	Rocks
u	Missile	u	Rosebuds
–	Peninsula	o	Sherbet
–	Penis	u v	Shoulders (Human)
u	Reptile	u v	Shoulder Pads
u	River	–	Skin
u	Road	u	Smoke
u	Sand Bar	u	Strawberries
o <	Shoreline	–	Vagina
o	Skewer	–	Wing
o	Spinal Cord	D8/DS8	
u	Stalagmite	–	Anatomy
u	Stem	–	Animal
u	Sword	u	Blender
–	Tree	o	Bottle
o	Waterfall (With D8 as background)	u	Bubble
u	Waterway	o	Canyon
D6		o	Cave
–	Anatomy	u	Chandelier
–	Animal(s)	–	Chest
o	Apples (4)	u	Cloud
o	Babies (2)	u v	Dress
o	Balloons	u v	Dummy (Dressmaker's)
–	Bird	–	Face (Animal)
o	Blood	u	Face (Dragon)
u	Bubblegum	–	Face (Human)
u v	Butterfly	u v	Face (Monster)
–	Buttocks	u v	Flask
o	Candy (Cotton)	o v	Ghost
o	Cloud (Including mushroom cloud)	u v	Glass
o	Embryos (2)	–	Head (Animal)
–	Face	–	Head (Human)
u v	Face (Insect)	u v	Head (Monster)
u v	Face (Science Fiction)	o	Hourglass
u	Fire	–	Human
u	Flower(s)	u v	Human-Like Figure
		u	Keyhole
		u v	Lamp
		o	Light Bulb
		u v	Mask
		u v	Monster
		u	Nose (Cow or horse)
		u	Parking Meter
		u v	Robot
		o v	Salt Shaker
		–	Skull
		u	Sky
		u	Tornado
		–	Tree
		–	Vagina
		o	Vase
		u	Violin
		o	Water
		o	Waterfall
		–	Womb
		D9	
		–	Animal
		u	Chandelier
		o v	Cloud (Mushroom)
		u v	Corkscrew
		–	Drill
		u v	Hammer (Ball peen)
		–	Head (Animal other than elephant)
		u v	Head (Elephant)
		–	Head (Human)
		–	Head (Insect)
		u v	Heron (On one leg)
		–	Human
		o v	Flower
		o	Fountain
		u v	Lamp
		o	Spindle (Office)
		u v	Tree
		o v	Umbrella
		u v	Valve
		D11	
		–	Anatomy
		u	Bat
		u	Bird
		u	Bookends
		o	Butterfly
		–	Ear Muffs
		–	Earphones
		o	Foliage
		–	Head
		–	Human
		–	Insect
		u	Insect (Winged)
		–	Lungs
		o	Pelvis
		u	Plant
		u	Shrubs

(continued)

Table A.9 Continued.

D12		Dd24		u Eye	
–	Animal	u	Cliff	–	Face
u <	Dragon	u	Head (Animal)	o	Ghost
o	Fire (Forest)	u <	Head (Human)	–	Human
o <	Human (As D1 with D3 as other object such as hill, sand, etc.)			u	Human-Like Figure
o <	Landscape			u	Lake
u	Leaves				
–	Monster				
–	Tree				
Dd21		Dd25		Dd30	
o	Claws	u	Branches	u	Candlewax
o	Fingers	u	Claws	u	Caterpillar
u v	Fins	u	Feelers	–	Intestine
u v	Horns	–	Fingers	–	Penis
–	Humans	u	Roots	–	Reptile
u	Icicles	u	Tentacles		
–	Rake	–	Trees		
u v	Rockets (Group)	u	Weeds		
–	Spears				
u	Stalagmites				
–	Trees				
DdS22		Dd26		Dd31	
u	Bowl	–	Animal...	u	Breast
–	Candles	u	Claw	u v	Cover (Pot)
u	Cavern	o	Finger	u <	Face (Animal)
–	Cup	–	Foot	u <	Face (Human)
–	Door(s)	u	Gun (Often science fiction)	u	Foliage
–	Eyes	u	Hose (Nozzle)	–	Tree(s)
–	Face (Animal)	–	Human		
–	Face (Human)	u	Key		
–	Face (Insect)	–	Nose		
o	Face (Monster)	u <	Person	u v	Bowl
–	Head	u <	Scarecrow	u	Dome
–	Jar	u <	Statue	–	Helmet
–	Jellyfish	u	Trumpet	u	Moon (Upper half)
u	Lake(s)			u	Shell
o	Mask			u	Sun (Upper half)
u	Nose (Animal)			u	Sunspot
o	Pumpkin (Halloween)			u	Tent
–	Skull				
DdS23		Dd27		DdS32	
u	Caves	–	Animal		
u	Eyes	–	Face		
o	Holes	–	Head		
u	Islands	–	Human		
u	Lakes	u <	Tent		
u	Nostrils (Animal)	u <	Top		
–	Pillows				
–	Shells				
DdS29		Dd28		Dd33	
o	Bell	–	Blood	o <	Alligator
–	Bug	u	Breast	o <	Crocodile
		u	Egg	u	Foliage
		–	Head	u <	Head (Animal other than deer)
		u	Insect (Hard shelled)	o <	Head (Deer)
		–	Scab	–	Head (Human)
		u	Shell	u <	Head (Reptile)
		–	Stomach	u	Lizard
DdS34		Dd29			
–	Animal			u	Log
u	Antlers			–	Mountain(s)
u	Branches			–	Tree
u	Bridge (Natural)				

Table A.9 Continued.

Dd34 (continued)					
		u	Roots	–	Bird
u	Cannon (Usually science fiction)	–	Skeletal	u	Buttocks
		u	Thorns	u	Furnace
u	Claw(s)	–	Trees	–	Head
o	Drawbridge (Often opening)	u	Vines	–	Lung(s)
–	Hands			–	Mask
u	Horns			u	Pot
u	Hose			u	Rock(s)
–	Human(s)	–	Animal	u	Stove (Iron)
u	Lightning Flash	u	Bathysphere	u	Vaginal area

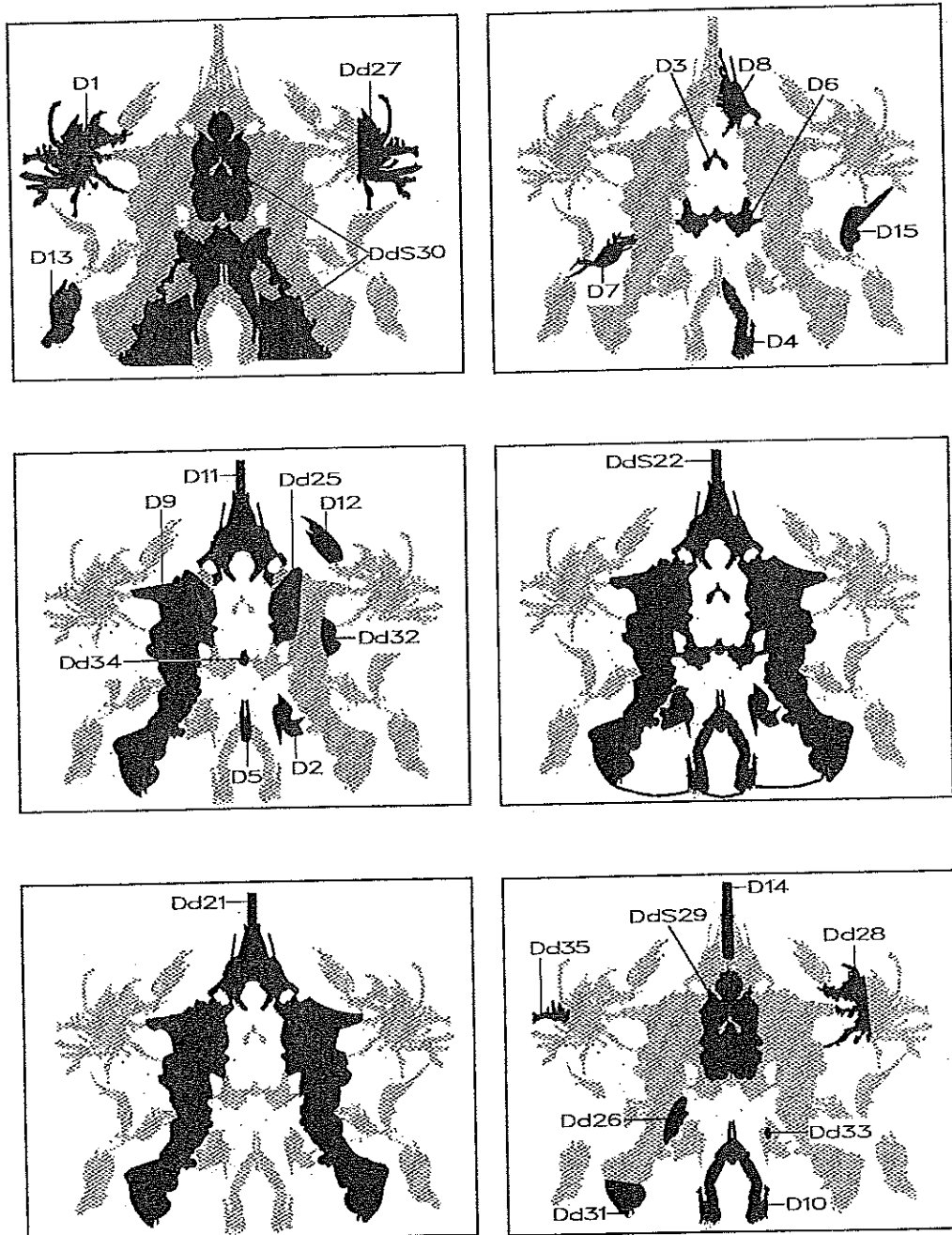


Figure A.10 D and Dd areas for card X.

Table A.10 Figures Showing Common (D) and Unusual (Dd) Location Areas by Card, Listings of Ordinary (o), Unusual (u), and Minus (-) Responses and Response Classes by Location Areas, Plus Populars and Z Values for Each Card.

CARD X		Popular is to D1: Spider or Crab			
		Z Values: W = 5.5 Adjacent = 4.0 Distant = 4.5 Space = 6.0			
W					
-	Anatomy	o	Painting (Modern)	o	Scorpion
o	Animals (Marine, unspecified, or if specified, meeting appropriate contour requirements)	u	Painting (Finger)	-	Sea Shell
u	Animals (Not marine but meeting contour requirements)	u	Palette (Artist's)	u	Seaweed
o	Aquarium	u	Plants	u	Snowflake
o	Art (Abstract)	o	Poster (Abstract)	o	Spider
u v	Aviary	u	Puzzle (Pieces)	-	Spider Web
u	Bacteria	u	Rug (Design)	u	Star
-	Birds	-	Sea Animal	o	Water (Drop)
-	Bones	u	Science fiction scene (Usually includes aliens, creatures, monsters, but may involve space battle such as from Star Wars)	-	Web
-	Bug (Squashed)	o	Underwater Scene	u	Weed
u	Chandelier	o	Walkway (As center space and other areas as flowers and/or shrubbery)	D2	
u	Children's Play Park (With all areas included as play equipment)	D1		u	Amoeba
-	Christmas Tree	o	Amoeba	u	Anemone
-	Clouds	-	Animal	u	Animal (Unspecified)
u	Costume (Theatrical, hanging on wall)	u	Bug	-	Bee
u	Design (Abstract)	u	Cell (Biological)	u v	Bird
u v	Explosion	-	Cockroach	u	Bug
-	Face	u	Coral	u	Cat
o	Fireworks Display	o	Crab	o	Cell (Biological)
o	Floral Display	u	Dragon	-	Chicken
o	Flower Garden	-	Earring	o	Dog
o v	Flowers (Bouquet)	u	Face	u	Duck
o	Garden Scene (With some areas as flowers or shrubbery and areas such as D11 and/or D6 as sculpture or architecture)	u	Fern	o	Egg (Broken or fried)
-	Headdress	-	Fireworks	-	Eye
-	Human	u	Fish	-	Face
o	Insects (Unspecified, or if specified, meeting appropriate contour requirements)	u	Flower	u v	Fish
u	Islands	u	Germ	o	Flower
u	Junk Yard	-	Hat	u	Frog
u	Kaleidoscope	-	Head	-	Head
u	Lights (Created by strobe)	u	Insect	u	Insect
-	Map (Specific)	u	Island	u	Island
u	Map (Unspecified)	-	Jellyfish	u	Leaf
-	Mask	u	Landscape	o	Lion
u	Mobile (Abstract)	-	Leaf	-	Monkey
-	Pagoda	u	Lobster	-	Monster
		-	Map	u	Plant
		-	Mask	-	Sea Animal
		o	Monster	u	Sea Shell
		u	Octopus	u	Seal
		u	Orchid	-	Sperm
		u	Paint (Splash)	D3	
		u	Pom Pom	-	Airplane
		-	Reindeer	o v	Antennae (Radar or TV)
		u	Roots	u	Antennae (Insect)
		o		o v	Balloons (Weather)
				-	Bird
				u	Buds
				-	Bug
				o	Cherry Pits

(continued)

Table A.10 Continued.

D3 (continued)		
-	Crab	o v Saxophone
u	Ear Muffs	o v Sea Horse
u	Earphones	u Smoke
-	Eye	u Snail
-	Flower(s)	o Snake
o	Governor (On motor)	u Tail (Bird)
-	Head	- Tree
u	Headset	- Wing
-	Human	
o	Instrument (Weather, for wind velocity)	D5
u	Instrument (Medical)	o v Angel
u	Knocker (Door)	- Bug
u	Lights (Electric)	u Clothespin
-	Lungs	u v Crucifix
u v	Necklace	u v Devil
-	Notes (Musical)	- Face
-	Ovaries	o Head (Animal, long eared)
-	Parachutist	- Head (Animal, not long eared)
o	Pawnbroker Symbol	- Head (Human)
-	Rower (In boat)	u Head (Insect, with antennae)
-	Scissors	o v Human
o	Seed Pod (Maple)	u v Human-Like Figure
u v	Slingshot	- Insect
u	Spaceship (Science fiction)	o Mask
-	Stethoscope	u v Tack
-	Testicles	u v Tooth
u	Tongs (Ice)	u Tweezers
u	Twig	
u	Water Wings	D6
o	Wishbone	- Anatomy
u v	"V" (Peace sign)	- Animal
	D4	o v Anthropoids
-	Anatomy	u Bagpipes
-	Animal	- Bat(s)
u v	Animal (Prehistoric)	u Birds
-	Arm	u Brassiere
u	Boot (Jester)	- Breasts
-	Bug	o Bridge (Natural)
o	Caterpillar	- Cloud(s)
-	Cucumber	u Coral
u v	Dragon	u v Dolls
o	Eel	u Ducks
-	Fish	- Eyeglasses
-	Head (Animal)	- Face(s)
u v	Head (Animal, prehistoric)	u v Flowers
-	Head (Bird, except Peacock or swan)	o v Ghosts
-	Head (Human)	o v Gorillas
u v	Head (Peacock)	- Hands
u v	Head (Swan)	u v Heads (Animal)
u	Horn	u Heads (Bird)
-	Insect	- Heads (Human)
u	Plant	o v Humans
		o v Human-Like Figures
		- Insect(s)
		Jaw
		Lungs
		o v Monster
		u Nest
		- Nose
		- Ovaries
		u Pipes (Smoker's)
		u Sea Shells
		u Skeletal
		u Water
		D7
		o Animal (Leaping)
		o Ant
		- Bird
		u Branch
		- Clam
		u Claw
		o Cockroach
		u Cocoon
		o Crab
		o Crayfish
		o Deer
		- Dog
		- Face
		- Fish
		- Frog
		o Grasshopper
		- Human
		- Kidney
		u Lobster
		o Nest
		u Praying Mantis
		u Rodent (With head toward D9)
		o Roots
		u Salamander
		u Scorpion
		- Sea Animal
		u Seed Pod
		u Spider
		u Tick
		u Weed
		D8
		- Animal (Unspecified)
		u Animal (Cartoon or prehistoric)
		o Ant
		u Bee
		o Beetle
		u Buffalo
		o Bug
		u Bull
		- Cat
		- Chicken

Table A.10 Continued.

D8 (continued)					D11
u	Chipmunk	o	Head	u	Airplane
u	Crab	o	Human (With mention that lower body is not distinct)	–	Animal
o	Creature (Beast, monster)	u	Human (With no mention about lower body being indistinct)	–	Broom
u	Cricket			u	Building (With chimney or tower)
o	Dragon	o	Human-Like Figure	o	Candle (With holder)
u	Dwarf	u	Insect	u	Castle
u	Elf	u	Intestine	–	Centipede
u	Emblem	u	Island	o	Eiffel Tower
–	Face	–	Italy	–	Face
–	Fish	–	Map	u	Face (Monster)
u	Frog	u	Map (Topographic)	u v	Flower
u	Gnome	o	Mermaid	u v	Funnel
–	Goat	o	Microorganism	o	Helmet (Science fiction)
–	Head (Animal)	u	Mountain Range (Often as aerial view)	–	Human
o	Head (Animal-like creature)	o	Mummy	o	Insects (As D8 and D14 as another object)
–	Head (Human)	–	Porpoise	–	Intestines
u	Head (Human-like creature)	u	Sea Horse	–	Lungs
o	Head (Insect)	u	Snail	u	Mask
–	Human	u	Sponge	o	Missile (With smoke or on pad)
o	Insect	o	Worm	u	Mistletoe
–	Lizard			–	Nervous System
u	Mask			u	Plant
–	Monkey			o	Rocket (With smoke or on pad)
o	Monster (Animal)			o	Roots
o	Monster (Human-like)			u	Skeletal
u	Parrot			–	Skull
u	Porcupine			o	Spaceship
u	Rodent			u	Statue
u	Roots			o v	Torch
–	Sea Animal			u v	Tree
–	Shrimp			–	X-ray (Specific)
–	Skeletal			u	X-ray (Unspecified)
–	Spider				
u	Troll				
u	Unicorn				
–	Witch				
D9		D10		D12	
–	Anatomy (Except intestine)	–	Anatomy	u	Bean
–	Animal	u v	Angel	–	Bird
u	Animal-Like Creature	–	Animal	o	Buffalo
u	Bacon	o	Arbor	o	Bug
o	Blood	o	Arch	o	Bull
u	Bone	u v	Bird	u	Claw
–	Bug	u	Butterfly	o	Cow
o	Caterpillar	u	Caterpillars	u	Dog
u	Cloud	u v	Comb (Ornamental)	–	Fish
u	Coastline (California)	o v	Door Knocker	u	Goat
o	Coral	–	Flower	u	Grasshopper
–	Dolphin	u	Fountain	o	Insect
u	Eel	–	Funnel	u	Lamb
o	Elf	u v	Head (Animal, horned)	o	Leaf
o	Fire	–	Head	–	Plant
–	Hair	o v	Horns	u	Pickle
		o v	Human (As D5 with other areas as flags, smoke, streamers, swing, etc.)		
		–	Insect		
		u	Lyre		
		u	Mustache		
		u	Necklace		
		o v	Parachutist		
		u v	Pelvis		
		u	Seaweed		
		o	Shrub(s)		
		u v	“U”		
		o	Wishbone		
		u	Worms		

(continued)

Table A.10 Continued.

D12 (continued)		DdS22	
o	Ram	o	Post
—	Rodent	o	Rocket
u	Seed Pod	u	Root
o	Unicorn	u	Ruler
u	Whale	u	Shotgun
		o	Spinal Cord
		u	Statue
		u	Stick
		o	Stove Pipe
		u	Sword
		u	Telescope
		u	Test Tube
		u	Tire Pump
		u	Vase
D13		DdS25	
o	< Animal (Usually lying or jumping and includes a wide variety such as bear, buffalo, cat, dog, lion, rabbit, etc.)	u	Coastline
—	Ant	—	Head (Animal)
—	Bird	o	Head (Human)
u	Bug	o	Head (Human-like)
u	Cloud		
—	Face	Dd26	
u	Fish	—	Breast
—	Flower	—	Face (Animal)
u	Fungus	u	Face (Human, Profile)
—	Head	u	Face (Human-like, profile)
—	Human		
u	Insect	Dd27	
u	Leaf	—	Face
u	Mat	u	Insect
u	Oyster	—	Seaweed
o	Potato Chip	—	Trees
u	Rock		
—	Sea Shell	Dd28	
u	Sea Urchin	—	Clown
u	Sponge	u	Insect
—	Tree	u	Puppet
u	Whale	u	Roots
D14		DdS29	
—	Animal	o	Buddha
u	Artery	o	Child (With hands up)
u	Baton	—	Face
u	Bird Feeder	o	Fan (With <i>D11</i> as handle)
o	Bone	o	Human (Sitting or squatting)
o	Candle	u	Lantern (Sometimes with <i>D11</i> as handle)
o	Chimney	u	Paddle (With <i>D11</i> as handle)
u	Crowbar		
—	Face		
—	Finger		
u	Flute		
u	Handle		
—	Head		
—	Human		
—	Knife		
u	Log		
o	Missile		
u	Pencil (Not sharpened)		
u	Penis		
		Dd21	
		—	Animal(s)
		u	v Antennae
		u	Arch
		u	v Bird (Flying)
		—	Boomerang
		o	v Butterfly (Front view)
		u	v Canyon
		u	v Chevron
		o	v Flower (Sometimes including <i>D6</i>)
		—	Human(s)
		—	Insect
		u	v Keel (Boat)
		u	Landscape
		u	v Ornament
		u	Pliers (Cutting)
		u	Reef
		—	Tuning Fork
		u	Tweezers
		u	v Wishbone

Table A.10 Continued.

DdS30		Dd33			
--	Skeleton	o	Acorn	--	Head
u	Water	u	Ball	--	Skull
		u	Cookie	u	Tooth
Dd31		--	Eye	Dd35	
u v	Head (Animal)	--	Head	--	Animal
u v	Head (Caterpillar)	u	Orange	u	People (On a cliff)
--	Head (Human)	u	Sun	--	Reptile
u v	Head (Human-like)	o	Walnut	u	Trees (On a cliff)
Dd32		Dd34			
--	Animal	u	Basket		
u	Head (Animal)	u	Bottle		
--	Head (Human)	--	Bullet		

DATA CONCERNING NONPATIENT CHILDREN AND ADOLESCENTS

Tables A.11 and A.12 contain reference data concerning 1,390 nonpatient children, subdivided by ages, from 5 to 16. These groups are not subdivided by response styles, because to do so would result in sample sizes too small to be meaningful. In fact, these data should be used very cautiously for two reasons. First, the number of subjects included for any given age group is not substantial. Second, these are children who have been volunteered by parents to participate in the nonpatient project. Logically, parents usually might not volunteer a child for participation unless they have a sense of confidence about the performance of the youngster. Thus, children who are functioning

very well may be overly representative in the various age groups.

When reviewing a table, it is important to consider *all* of the data concerning a variable. Means and standard deviations, considered alone, can be misleading for many Rorschach variables, especially those with distributions that fall on a J-curve. The values for medians and modes are been included in each table because they often provide more realistic information about a variable. This is particularly true for those variables that have standard deviations in brackets. The bracketing of the *SD* signifies that the use of the standard deviation to establish an expected or "normal" range can be very misleading and, generally, should not be used in the interpretive framework.

Table A.11 Descriptive Statistics for 1,390 Nonpatient Children and Adolescents by Age.

Variable	5 Year Olds (N = 90)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
R	17.64	1.44	14.00	20.00	90	18.00	18.00	-0.83	-0.25
W	9.97	1.65	7.00	12.00	90	9.00	11.00	0.24	-1.35
D	7.10	2.61	3.00	12.00	90	8.00	6.00	-0.83	-0.24
Dd	0.58	[0.65]	0.00	2.00	44	0.00	0.00	0.70	-0.53
S	1.40	[1.14]	0.00	3.00	64	1.00	0.00	0.14	-1.39
DQ+	5.47	1.43	2.00	8.00	90	5.50	4.00	0.35	-1.29
DQo	10.72	2.07	7.00	13.00	90	12.00	13.00	-1.25	0.05
DQv	1.37	[0.62]	0.00	4.00	83	1.00	1.00	0.36	-0.63
DQv/+	0.09	[0.29]	0.00	1.00	8	0.00	0.00	2.94	6.78
FQX+	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
FQXo	11.54	2.50	6.00	15.00	90	13.00	13.00	-0.70	-0.52
FQXu	3.59	1.96	1.00	7.00	90	4.00	1.00	0.13	-1.19
FQX-	1.46	0.64	0.00	3.00	86	1.00	1.00	0.04	-0.19
FQXNone	0.87	[0.62]	0.00	2.00	63	1.00	1.00	0.36	-0.63
MQ+	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
MQo	1.13	0.34	1.00	2.00	90	1.00	1.00	2.19	2.88
MQu	0.38	0.66	0.00	2.00	25	0.00	0.00	1.53	1.00
MQ-	0.19	[0.39]	0.00	1.00	17	0.00	0.00	1.62	0.63
MQNone	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
S-	0.91	[0.69]	0.00	3.00	62	1.00	1.00	0.45	-0.83
M	1.70	1.00	1.00	4.00	90	1.00	1.00	1.26	0.36
FM	5.00	0.95	4.00	7.00	90	5.00	4.00	0.32	-1.20
m	0.78	0.80	0.00	3.00	49	1.00	0.00	0.43	-1.32
FM+m	5.78	1.19	4.00	9.00	90	6.00	5.00	0.65	0.50
FC	0.71	0.46	0.00	1.00	64	1.00	1.00	-0.95	-1.13
CF	3.02	1.41	1.00	6.00	90	3.00	3.00	0.53	-0.20
C	0.67	[0.62]	0.00	2.00	63	1.00	1.00	0.36	-0.63
Cn	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
FC+CF+C+Cn	4.40	1.10	2.00	6.00	90	4.00	4.00	-0.39	-0.11
WSum C	4.38	1.09	2.50	6.50	90	4.00	4.00	0.27	-0.73
Sum C'	0.63	[0.48]	0.00	1.00	57	1.00	1.00	-0.56	-1.72
Sum T	0.83	[0.48]	0.00	2.00	57	1.00	1.00	0.42	2.42
Sum V	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sum Y	0.36	[0.33]	0.00	2.00	20	0.00	0.00	-0.65	2.71
SumShd	1.77	0.97	0.00	2.00	57	2.00	2.00	-0.56	-1.72
Fr+rF	0.38	[0.45]	0.00	2.00	29	0.00	0.00	1.01	-1.00
FD	0.28	[0.63]	0.00	1.00	16	0.00	0.00	1.77	0.58
F	6.98	1.26	4.00	9.00	90	6.00	6.00	0.19	-0.35
PAIR	9.08	1.96	5.00	11.00	90	9.00	11.00	-0.91	-0.29
3r(2)/R	0.69	0.14	0.33	1.00	90	0.60	0.64	0.28	0.57
LAMBDA	0.86	0.15	0.36	1.25	90	0.75	0.60	0.76	-0.52
EA	5.08	1.34	2.50	8.50	90	5.50	5.00	-0.24	-0.75
es	7.04	1.14	5.00	9.00	90	7.00	7.00	0.10	-0.60
D	-0.24	0.43	-1.00	0.00	90	0.00	0.00	-1.21	-0.55
AdjD	-0.20	0.40	-1.00	0.00	90	0.00	0.00	-1.53	0.33
a (active)	6.28	0.95	5.00	8.00	90	6.00	6.00	0.38	-0.70
p (passive)	1.20	1.37	0.00	4.00	49	1.00	0.00	0.82	-0.60
Ma	1.42	0.67	1.00	3.00	90	1.00	1.00	1.32	0.47
Mp	0.28	0.45	0.00	1.00	25	0.00	0.00	1.01	-1.00
Intellect	0.17	0.38	0.00	1.00	90	0.00	0.00	1.82	1.34
Zf	10.08	2.18	8.00	14.00	90	10.00	14.00	0.15	-1.52
Zd	-1.13	2.60	-5.00	4.50	90	-1.75	-2.50	0.70	0.09
Blends	2.86	1.92	0.00	5.00	77	3.00	5.00	-0.21	-1.56
Col Shd Bl	0.18	[0.56]	0.00	1.00	5	0.00	0.00	1.81	-2.37
Afr	0.88	0.13	0.50	1.00	90	0.90	0.80	-0.65	-0.08
Popular	4.66	1.69	3.00	10.00	90	4.00	4.00	0.55	-0.94
XA%	0.88	0.05	0.78	1.00	90	0.88	0.83	0.43	-0.34
WDA%	0.91	0.06	0.78	1.00	90	0.91	0.94	-0.08	-0.73

(continued)

Table A.11 Continued.

Variable	5 Year Olds (N = 90)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
X+%	0.67	0.10	0.47	0.83	90	0.68	0.78	-0.27	-0.68
X-%	0.08	0.04	0.00	0.17	86	0.07	0.11	-0.02	-0.16
Xu%	0.21	0.11	0.06	0.40	90	0.22	0.06	0.09	-1.44
Isolate/R	0.17	0.06	0.11	0.27	90	0.17	0.11	0.57	-0.88
H	2.19	0.50	1.00	3.00	90	2.00	2.00	0.38	0.34
(H)	1.46	0.50	1.00	2.00	90	1.00	1.00	0.18	-2.01
HD	0.36	0.48	0.00	1.00	32	0.00	0.00	0.61	-1.66
(Hd)	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
Hx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
All H Cont	4.00	1.15	2.00	6.00	90	4.00	3.00	0.40	-0.90
A	10.69	2.32	6.00	14.00	90	11.00	12.00	-0.87	-0.28
(A)	0.37	[0.48]	0.00	1.00	33	0.00	0.00	0.56	-1.72
Ad	0.71	[0.60]	0.00	2.00	57	1.00	1.00	0.22	-0.57
(Ad)	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
An	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Art	0.17	0.38	0.00	1.00	15	0.00	0.00	1.81	1.34
Ay	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Bl	1.13	[0.46]	0.00	2.00	86	1.00	1.00	0.54	1.30
Bt	0.28	0.45	0.00	1.00	25	0.00	0.00	1.00	-1.00
Cg	3.73	1.35	2.00	6.00	90	3.00	3.00	0.61	-0.92
Cl	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Ex	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Fi	0.22	[0.51]	0.00	2.00	16	0.00	0.00	2.30	4.54
Food	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Ge	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Hh	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
Ls	2.68	0.63	2.00	4.00	90	3.00	3.00	0.38	-0.65
Na	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sc	0.12	[0.33]	0.00	1.00	11	0.00	0.00	2.34	3.58
Sx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Xy	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Idiographic	0.14	0.35	0.00	1.00	13	0.00	0.00	2.05	2.28
DV	0.98	[1.05]	0.00	4.00	53	1.00	0.00	1.00	0.57
INCOM	0.96	[0.70]	0.00	2.00	66	1.00	1.00	0.06	-0.93
DR	0.04	[0.21]	0.00	1.00	4	0.00	0.00	4.49	18.63
FABCOM	0.89	[0.57]	0.00	2.00	70	1.00	1.00	-0.01	0.06
DV2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
INC2	0.09	[0.29]	0.00	1.00	8	0.00	0.00	2.93	6.78
DR2	0.09	[0.29]	0.00	1.00	8	0.00	0.00	2.93	6.78
FAB2	0.22	[0.42]	0.00	1.00	20	0.00	0.00	1.35	-0.16
ALOG	0.41	[0.50]	0.00	1.00	37	0.00	0.00	0.36	-1.91
CONTAM	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	3.68	1.92	1.00	8.00	90	4.00	5.00	0.16	-0.77
Lvl 2 Sp Sc	0.40	[0.58]	0.00	2.00	32	0.00	0.00	1.12	0.30
WSum6	11.08	4.68	4.00	19.00	90	12.00	4.00	-0.10	-1.05
AB	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
AG	1.23	0.67	0.00	3.00	82	1.00	1.00	0.60	0.74
COP	1.08	0.52	0.00	2.00	81	1.00	1.00	0.10	0.67
CP	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
GOODHR	3.59	0.98	1.00	6.00	90	3.50	3.00	0.03	1.46
POORHR	1.50	0.80	0.00	3.00	86	1.00	1.00	0.61	-0.40
MOR	0.78	[0.75]	0.00	2.00	53	1.00	0.00	0.38	-1.10
PER	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
PSV	0.63	[0.48]	0.00	1.00	57	1.00	1.00	-0.56	-1.72

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

Table A.11 Continued.

Variable	6 Year Olds (N = 80)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
R	18.91	0.98	14.00	20.00	80	19.00	20.00	-0.23	-1.25
W	10.79	1.17	7.00	10.00	80	11.00	9.00	-0.56	-1.16
D	7.94	1.01	7.00	11.00	80	7.00	8.00	-1.38	2.27
Dd	0.30	[0.46]	0.00	1.00	24	0.00	0.00	0.89	-1.24
S	0.79	[0.76]	0.00	3.00	51	1.00	1.00	1.09	1.67
DQ+	4.42	0.59	3.00	5.00	80	4.00	4.00	-0.46	-0.66
DQo	11.31	1.35	9.00	13.00	80	11.00	13.00	0.11	-1.45
DQv	2.54	[1.19]	1.00	5.00	80	3.00	3.00	0.14	-0.89
DQv/+	0.45	[0.64]	0.00	1.00	38	1.00	1.00	-1.18	-0.63
FQX+	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
FQXo	13.39	1.22	12.00	16.00	80	14.00	14.00	0.25	-0.92
FQXu	4.01	1.29	3.00	7.00	80	4.00	4.00	0.75	-0.32
FQX-	0.94	0.50	0.00	6.00	66	0.00	0.00	0.21	-2.01
FQXNone	0.74	[0.48]	0.00	2.00	68	1.00	1.00	-0.58	-1.70
MQ+	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
MQo	1.96	0.75	1.00	3.00	80	2.00	2.00	0.06	-1.22
MQu	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
MQ-	0.23	[0.67]	0.00	1.00	6	0.00	0.00	1.24	4.12
MQNone	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
S-	0.42	[0.78]	0.00	0.50	11	0.00	0.00	0.98	3.15
M	1.96	0.75	1.00	3.00	80	2.00	2.00	0.06	-1.22
FM	4.52	0.81	1.00	8.00	80	5.00	4.00	-1.25	2.76
m	1.40	1.48	0.00	4.00	51	1.00	0.00	0.81	-0.72
FM+m	5.92	0.99	2.00	10.00	80	8.00	8.00	1.11	0.35
FC	1.11	1.09	0.00	3.00	42	2.00	0.00	0.07	-1.72
CF	3.51	0.94	1.00	5.00	80	3.00	3.00	-0.36	0.83
C	0.94	[0.48]	0.00	2.00	68	1.00	1.00	-0.58	-1.70
Cn	0.06	[0.09]	0.00	1.00	1	0.00	0.00	4.15	35.81
FC+CF+C+Cn	5.56	1.63	1.00	7.00	80	6.00	6.00	-0.94	0.29
WSum C	5.02	1.42	1.00	6.50	80	5.50	5.50	-1.23	1.26
Sum C-	0.58	[0.50]	0.00	1.00	46	1.00	1.00	-0.31	-1.95
Sum T	0.83	[0.22]	0.00	1.00	69	1.00	1.00	-1.21	6.12
Sum V	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sum Y	0.54	[0.48]	0.00	1.00	37	0.00	0.00	0.70	-1.55
SumShd	1.95	0.88	0.00	3.00	76	2.00	2.00	-0.18	-0.89
Fr+rF	0.28	[0.40]	0.00	2.00	17	0.00	0.00	1.83	0.35
FD	0.48	[0.68]	0.00	1.00	29	0.00	0.00	1.49	2.34
F	5.77	1.47	3.00	10.00	80	4.00	4.00	3.10	10.34
PAIR	9.61	1.79	5.00	12.00	80	10.00	11.00	-0.88	0.30
3r(2)/R	0.67	0.15	0.25	0.90	80	0.66	0.60	0.38	0.61
LAMBDA	0.79	0.17	0.18	1.50	80	0.78	0.65	-1.56	0.64
EA	6.98	1.42	2.00	8.50	80	6.00	5.00	0.85	1.77
es	7.87	1.00	8.00	11.00	80	7.00	6.00	0.13	-1.52
D	-0.41	0.59	-2.00	0.00	80	0.00	0.00	-1.11	0.28
AdjD	-0.21	0.41	-2.00	0.00	80	0.00	0.00	-1.43	0.05
a (active)	6.03	1.27	5.00	9.00	80	6.00	5.00	0.43	-1.17
p (passive)	1.85	1.90	1.00	6.00	80	2.00	1.00	0.51	-1.49
Ma	0.98	0.84	0.00	2.00	51	1.00	0.00	0.05	-1.59
Mp	0.99	1.35	0.00	3.00	29	0.00	0.00	0.70	-1.44
Intellect	0.96	0.51	0.00	2.00	80	1.00	1.00	-0.06	0.93
Zf	10.15	1.44	6.00	12.00	80	11.00	9.00	-0.45	-1.21
Zd	-1.38	2.20	-5.00	1.00	80	0.00	0.00	-0.91	-0.93
Blends	2.16	0.49	1.00	3.00	80	2.00	2.00	0.38	0.64
Col Shd BI	0.44	[0.64]	0.00	1.00	18	0.00	0.00	2.13	4.67
Afr	0.87	0.26	0.25	1.11	80	0.82	0.78	-0.76	-0.36
Popular	5.02	1.43	4.00	9.00	80	5.00	5.00	0.14	-0.70
XA%	0.93	0.04	0.84	1.00	80	0.95	0.95	0.04	-0.75
WDA%	0.93	0.04	0.84	1.00	80	0.95	0.95	-0.05	-0.82

(continued)

Table A.11 Continued.

Variable	6 Year Olds (N = 80)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
X+%	0.70	0.06	0.60	0.80	80	0.70	0.60	-0.07	-0.92
X-%	0.03	0.03	0.00	0.13	45	0.05	0.00	0.42	-0.32
Xu%	0.23	0.07	0.07	0.35	80	0.22	0.22	0.43	-0.22
Isolate/R	0.23	0.09	0.06	0.39	80	0.22	0.15	0.22	-1.27
H	2.49	1.18	1.00	4.00	80	3.00	3.00	-0.18	-1.51
(H)	0.66	0.50	0.00	2.00	52	1.00	1.00	-0.38	-1.12
HD	0.58	0.63	0.00	2.00	40	0.50	0.00	0.63	-0.53
(Hd)	0.04	0.19	0.00	1.00	3	0.00	0.00	4.96	23.21
Hx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
All H Cont	3.76	0.75	2.00	5.00	80	4.00	4.00	0.23	-0.83
A	8.03	1.34	2.00	10.00	80	8.00	8.00	-1.34	4.29
(A)	0.34	[0.48]	0.00	1.00	27	0.00	0.00	0.70	-1.55
Ad	1.11	[0.60]	0.00	3.00	76	1.00	1.00	2.18	5.90
(Ad)	0.01	[0.11]	0.00	1.00	1	0.00	0.00	8.94	80.00
An	0.01	[0.11]	0.00	1.00	1	0.00	0.00	8.94	80.00
Art	0.86	0.41	0.00	2.00	67	1.00	1.00	-0.96	1.83
Ay	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Bl	0.30	[0.49]	0.00	2.00	23	0.00	0.00	1.22	0.28
Bt	1.52	0.64	0.00	2.00	74	2.00	2.00	-1.00	-0.04
Cg	0.03	0.16	0.00	1.00	2	0.00	0.00	6.20	37.40
Cl	0.14	[0.35]	0.00	1.00	11	0.00	0.00	2.14	2.67
Ex	0.25	[0.44]	0.00	1.00	20	0.00	0.00	1.17	-0.63
Fi	0.61	[0.52]	0.00	2.00	48	1.00	1.00	-0.18	-1.32
Food	0.59	[0.50]	0.00	1.00	47	1.00	1.00	-0.36	-1.92
Ge	0.05	[0.22]	0.00	1.00	4	0.00	0.00	4.20	16.12
Hh	1.17	0.65	0.00	3.00	73	1.00	1.00	0.93	1.71
Ls	0.96	0.19	0.00	1.00	77	1.00	1.00	-4.96	23.21
Na	0.78	[0.78]	0.00	2.00	45	1.00	0.00	0.41	-1.23
Sc	0.71	[0.66]	0.00	3.00	49	1.00	1.00	0.65	0.64
Sx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Xy	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Idiographic	0.15	0.36	0.00	1.00	12	0.00	0.00	1.99	2.04
DV	0.06	[0.24]	0.00	1.00	5	0.00	0.00	3.68	11.87
INCOM	2.35	[0.58]	0.00	3.00	79	2.00	2.00	-0.60	1.86
DR	0.09	[0.33]	0.00	2.00	6	0.00	0.00	4.03	17.30
FABCOM	0.60	[0.49]	0.00	1.00	48	1.00	1.00	-0.41	-1.87
DV2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
INC2	0.04	[0.19]	0.00	1.00	3	0.00	0.00	4.96	23.21
DR2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
FAB2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
ALOG	0.65	[0.48]	0.00	1.00	52	1.00	1.00	-0.64	-1.63
CONTAM	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	3.79	1.35	1.00	6.00	80	4.00	5.00	-0.27	-1.21
Lvl 2 Sp Sc	0.04	[0.19]	0.00	1.00	3	0.00	0.00	4.96	23.21
WSum6	10.83	4.72	3.00	18.00	80	13.00	15.00	-0.55	-1.36
AB	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
AG	0.36	0.60	0.00	2.00	24	0.00	0.00	1.45	1.09
COP	1.84	0.56	0.00	3.00	74	2.00	2.00	-2.68	6.69
CP	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
GOODHR	3.68	0.98	2.00	5.00	80	3.00	3.00	0.20	-1.24
POORHR	1.14	0.73	0.00	3.00	69	1.00	1.00	0.80	1.10
MOR	0.08	[0.35]	0.00	2.00	4	0.00	0.00	4.88	23.92
PER	0.08	0.38	0.00	3.00	4	0.00	0.00	6.35	45.06
PSV	0.01	[0.11]	0.00	1.00	1	0.00	0.00	8.94	80.00

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

Table A.11 Continued.

Variable	7 Year Olds (N = 120)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
R	19.93	1.25	14.00	24.00	120	19.00	19.00	-0.10	-0.50
W	10.33	2.01	5.00	12.00	120	9.00	9.00	0.02	-1.34
D	9.09	2.86	7.00	15.00	120	9.00	7.00	0.07	-1.77
Dd	0.82	[0.32]	0.00	3.00	74	0.00	0.00	0.42	2.91
S	1.44	[1.06]	0.00	4.00	102	2.00	2.00	-0.49	-0.38
DQ+	6.48	0.80	6.00	9.00	120	6.00	6.00	0.11	-0.41
DQo	11.15	0.98	10.00	13.00	120	11.00	11.00	0.36	-0.92
DQv	1.63	[0.58]	0.00	3.00	89	2.00	1.00	0.28	-0.71
DQv/+	0.28	[0.45]	0.00	1.00	33	0.00	0.00	1.02	-0.98
FX+	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
FXo	14.37	1.46	12.00	18.00	120	15.00	14.00	0.24	-1.28
FXu	2.08	0.69	1.00	3.00	120	2.00	2.00	-0.10	-0.86
FX-	1.99	1.27	0.00	4.00	117	2.00	1.00	0.36	-1.18
FXNone	1.10	[0.30]	0.00	3.00	72	1.00	1.00	2.70	5.38
MQ+	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
MQo	2.51	1.16	2.00	6.00	120	3.00	2.00	1.25	0.67
MQu	0.56	0.34	0.00	1.00	13	0.00	0.00	2.20	4.96
MQ-	0.45	[0.22]	0.00	2.00	28	0.00	0.00	2.18	11.75
MQNone	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
S-	0.12	[0.32]	0.00	1.00	14	0.00	0.00	2.42	3.91
M	3.02	1.22	2.00	6.00	120	3.00	2.00	1.15	0.12
FM	5.92	1.20	3.00	7.00	120	6.00	6.00	-1.11	0.14
m	1.06	0.40	0.00	2.00	114	1.00	1.00	0.52	3.35
FM+m	6.08	1.14	5.00	8.00	120	7.00	8.00	-0.80	-0.79
FC	2.17	0.93	1.00	4.00	120	2.00	2.00	0.27	-1.82
CF	3.19	0.98	1.00	6.00	120	3.00	3.00	-0.71	0.47
C	0.99	[0.30]	0.00	3.00	72	0.00	0.00	2.70	5.38
Cn	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
FC+CF+C+Cn	6.15	1.39	4.00	10.00	120	5.00	5.00	0.70	-1.11
WSum C	4.97	1.14	3.00	7.00	120	4.00	4.00	0.16	-1.17
Sum C'	1.25	[0.86]	0.00	2.00	87	2.00	2.00	-0.51	-1.47
Sum T	0.93	[0.78]	0.00	2.00	110	1.00	1.00	0.42	4.14
Sum V	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sum Y	0.23	[0.42]	0.00	1.00	37	0.00	0.00	1.33	-0.23
SumShd	2.48	1.12	1.00	4.00	120	3.00	3.00	-0.05	-1.37
Fr+rF	0.30	[0.39]	0.00	2.00	22	0.00	0.00	2.70	5.38
FD	0.13	[0.70]	0.00	1.00	14	0.00	0.00	1.31	-2.94
F	7.62	1.60	3.00	10.00	120	7.00	8.00	-0.68	-0.31
PAIR	9.73	1.94	7.00	12.00	120	9.00	8.00	0.03	-1.75
3r(2)/R	0.65	0.12	0.33	0.90	120	0.62	0.60	0.14	0.28
LAMBDA	0.79	0.16	0.20	1.25	120	0.70	0.62	-0.17	-0.32
EA	7.48	1.04	4.00	9.00	120	8.00	7.00	-0.41	-1.07
es	8.56	1.67	4.00	12.00	120	8.00	7.00	0.01	-0.98
D	-0.53	0.67	-2.00	0.00	120	0.00	0.00	-0.92	-0.32
AdjD	-0.47	0.58	-2.00	0.00	120	0.00	0.00	-0.79	-0.35
a (active)	6.97	1.24	4.00	8.00	120	7.00	8.00	-1.00	-0.19
p (passive)	3.03	1.28	2.00	6.00	120	2.00	2.00	0.91	-0.50
Ma	2.82	0.87	2.00	5.00	120	3.00	2.00	0.84	-0.07
Mp	0.20	0.40	0.00	1.00	24	0.00	0.00	1.52	0.31
Intellect	0.27	0.44	0.00	1.00	120	0.00	0.00	1.07	-0.87
Zf	11.51	1.46	10.00	15.00	120	11.00	14.00	-0.08	-1.14
Zd	-1.04	2.41	-3.50	3.00	120	-1.00	-3.50	0.39	-1.46
Blends	5.11	0.65	3.00	7.00	120	4.00	5.00	-0.72	0.74
Col Shd Bl	0.36	[0.64]	0.00	1.00	20	0.00	0.00	2.12	8.35
Afr	0.79	0.09	0.45	0.83	120	0.67	0.75	0.02	-1.21
Popular	4.75	0.79	2.00	8.00	120	6.00	4.00	-0.35	-0.16
XA%	0.92	0.07	0.79	1.00	120	0.94	1.00	-0.31	-1.26
WDA%	0.92	0.07	0.79	1.00	120	0.94	1.00	-0.52	-0.99

(continued)

Table A.11 Continued.

Variable	7 Year Olds (N = 120)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
X+%	0.81	0.05	0.70	0.89	120	0.82	0.86	-0.61	-0.33
X-%	0.08	0.07	0.00	0.21	87	0.06	0.00	0.33	-1.09
Xu%	0.11	0.03	0.05	0.15	120	0.11	0.11	-0.67	-0.56
Isolate/R	0.25	0.05	0.17	0.35	120	0.25	0.25	0.41	-1.08
H	1.67	0.79	1.00	3.00	120	1.00	1.00	0.65	-1.10
(H)	1.34	0.88	0.00	3.00	93	2.00	2.00	-0.28	-1.00
HD	0.38	0.49	0.00	1.00	45	0.00	0.00	0.52	-1.76
(Hd)	0.74	0.87	0.00	3.00	63	1.00	0.00	1.14	0.71
Hx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
All H Cont	4.13	0.89	3.00	6.00	120	4.00	4.00	0.17	-0.94
A	9.26	0.77	8.00	10.00	120	9.00	10.00	-0.48	-1.16
(A)	1.18	[0.81]	0.00	2.00	90	1.00	2.00	-0.34	-1.39
Ad	0.68	[0.79]	0.00	2.00	57	0.00	0.00	0.65	-1.10
(Ad)	0.05	[0.22]	0.00	1.00	6	0.00	0.00	4.18	15.75
An	0.37	[0.48]	0.00	1.00	44	0.00	0.00	0.56	-1.72
Art	0.10	0.30	0.00	1.00	12	0.00	0.00	2.70	5.38
Ay	0.17	[0.37]	0.00	1.00	20	0.00	0.00	1.81	1.30
Bl	0.28	[0.45]	0.00	1.00	33	0.00	0.00	1.02	-0.98
Bt	2.11	0.56	1.00	3.00	120	2.00	2.00	0.03	0.12
Cg	1.15	0.36	1.00	2.00	120	1.00	1.00	1.98	1.97
Cl	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Ex	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Fi	0.48	[0.50]	0.00	1.00	57	0.00	0.00	0.10	-2.02
Food	0.20	[0.40]	0.00	1.00	24	0.00	0.00	1.51	0.31
Ge	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Hh	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
Ls	1.00	0.00	1.00	1.00	120	1.00	1.00	—	—
Na	0.96	[0.77]	0.00	2.00	82	1.00	1.00	0.07	-1.31
Sc	1.54	[1.14]	0.00	4.00	96	1.00	1.00	0.39	-0.62
Sx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Xy	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Idiographic	0.53	0.59	0.00	2.00	57	0.00	0.00	0.63	-0.53
DV	1.39	[0.49]	1.00	2.00	120	1.00	1.00	0.45	-1.83
INCOM	1.39	[0.58]	0.00	2.00	114	1.00	1.00	-0.33	-0.71
DR	0.46	[0.63]	0.00	2.00	46	0.00	0.00	1.06	0.06
FABCOM	0.29	[0.46]	0.00	1.00	35	0.00	0.00	0.92	-1.16
DV2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
INC2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
DR2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
FAB2	0.08	[0.26]	0.00	1.00	9	0.00	0.00	3.26	8.83
ALOG	0.38	[0.49]	0.00	1.00	45	0.00	0.00	0.52	-1.76
CONTAM	0.01	0.09	0.00	1.00	1	0.00	0.00	10.95	120.00
Sum 6 Sp Sc	3.99	1.40	1.00	8.00	120	4.00	5.00	0.23	0.45
Lvl 2 Sp Sc	0.08	[0.26]	0.00	1.00	9	0.00	0.00	3.26	8.83
WSum6	9.18	5.66	1.00	29.00	120	10.00	4.00	0.85	0.69
AB	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
AG	1.20	0.40	1.00	2.00	120	1.00	1.00	1.51	0.31
COP	1.17	0.59	0.00	2.00	108	1.00	1.00	-0.05	-0.28
CP	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
GOODHR	3.82	1.16	2.00	5.00	120	4.00	5.00	-0.52	-1.19
POORHR	0.99	0.98	0.00	3.00	71	1.00	0.00	0.50	-0.95
MOR	1.64	[0.58]	1.00	3.00	120	2.00	2.00	0.22	-0.70
PER	1.22	0.57	1.00	3.00	120	1.00	1.00	2.51	4.94
PSV	0.54	[0.50]	0.00	1.00	65	1.00	1.00	-0.16	-2.01

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

Table A.11 Continued.

Variable	8 Year Olds (N = 120)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
R	18.73	2.46	14.00	23.00	120	18.00	16.00	0.21	-1.57
W	10.03	1.01	6.00	11.00	120	11.00	8.00	0.55	-1.05
D	7.00	1.28	7.00	11.00	120	7.00	7.00	0.41	-1.12
Dd	1.70	[0.84]	0.00	3.00	104	1.00	0.00	0.40	-1.47
S	1.73	[0.58]	1.00	3.00	119	2.00	2.00	0.08	-0.43
DQ+	6.80	1.74	4.00	10.00	120	6.00	6.00	0.64	-0.57
DQo	11.27	1.40	9.00	14.00	120	12.00	12.00	-0.04	-0.68
DQv	0.90	[0.62]	0.00	3.00	99	1.00	1.00	0.50	-0.59
DQv/+	0.17	[0.25]	0.00	1.00	19	0.00	0.00	3.56	11.07
FQX+	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
FQXo	13.22	1.83	10.00	17.00	120	13.00	12.00	0.44	-0.37
FQXu	3.47	1.37	2.00	6.00	120	4.00	2.00	0.24	-1.34
FQX-	1.72	0.76	1.00	4.00	120	2.00	1.00	0.53	-1.07
FQXNone	0.43	[0.48]	0.00	1.00	43	0.00	0.00	0.73	-1.53
MQ+	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
MQo	3.12	1.62	1.00	6.00	120	2.00	2.00	0.68	-0.97
MQu	0.20	0.40	0.00	1.00	24	0.00	0.00	1.54	0.38
MQ-	0.07	[0.25]	0.00	1.00	10	0.00	0.00	3.56	11.07
MQNone	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
S-	0.13	[0.34]	0.00	1.00	29	0.00	0.00	2.21	3.00
M	3.38	1.85	1.00	7.00	120	3.00	2.00	0.79	-0.49
FM	4.72	1.37	3.00	8.00	120	4.00	4.00	0.71	-0.30
m	0.57	0.50	0.00	3.00	57	0.00	0.00	0.14	-2.05
FM+m	5.28	1.56	3.00	8.00	120	5.00	4.00	0.20	-1.29
FC	1.80	0.84	1.00	3.00	120	2.00	1.00	0.40	-1.47
CF	2.73	0.78	1.00	4.00	120	3.00	3.00	-0.38	-0.01
C	0.43	[0.48]	0.00	1.00	43	0.00	0.00	0.73	-1.53
Cn	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
FC+CF+C+Cn	4.87	0.72	3.00	6.00	120	5.00	5.00	-0.90	1.37
WSum C	4.13	0.77	3.00	6.00	120	4.00	3.50	0.80	0.22
Sum C'	1.30	[0.89]	0.00	3.00	102	1.00	1.00	0.92	-0.26
Sum T	1.08	[0.60]	0.00	2.00	107	1.00	1.00	0.76	2.58
Sum V	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sum Y	0.92	[0.85]	0.00	2.00	68	1.00	0.00	0.37	-1.54
SumShd	2.90	1.47	1.00	5.00	120	2.00	2.00	0.18	-1.46
Fr+rF	0.33	[0.48]	0.00	1.00	33	0.00	0.00	0.73	-1.53
FD	0.53	[0.34]	0.00	2.00	39	0.00	0.00	2.21	3.00
F	6.98	1.64	5.00	10.00	120	7.00	7.00	0.67	-0.58
PAIR	7.97	1.19	6.00	10.00	120	8.00	8.00	0.07	-0.60
3r(2)/R	0.62	0.12	0.30	0.90	120	0.67	0.60	0.28	0.39
LAMBDA	0.77	0.27	0.29	1.35	120	0.65	0.70	0.91	-0.21
EA	7.51	1.45	4.00	11.50	120	7.00	6.50	0.48	-0.31
es	8.18	2.51	4.00	12.00	120	7.00	6.00	0.07	-1.31
D	-0.22	0.64	-2.00	1.00	120	0.00	0.00	-1.38	2.44
AdjD	-0.15	0.61	-2.00	1.00	120	0.00	0.00	-1.82	4.40
a (active)	6.73	1.63	4.00	10.00	120	6.00	6.00	0.15	-0.34
p (passive)	1.93	1.30	0.00	5.00	112	2.00	1.00	0.89	0.20
Ma	3.12	1.66	1.00	6.00	120	3.00	2.00	0.52	-1.01
Mp	0.37	0.45	0.00	2.00	46	0.00	0.00	1.08	-0.86
Intellect	0.46	0.98	0.00	1.50	120	0.00	0.00	2.46	3.15
Zf	11.27	1.49	10.00	15.00	120	12.00	11.00	0.28	-1.27
Zd	-0.70	1.93	-4.50	5.00	120	-1.00	0.00	1.23	3.73
Blends	4.88	1.03	3.00	6.00	120	5.00	5.00	-0.54	-0.82
Col Shd Bl	0.30	[0.40]	0.00	1.00	34	0.00	0.00	1.54	0.38
Afr	0.69	0.09	0.36	0.90	120	0.68	0.63	0.64	0.00
Popular	5.68	0.80	3.00	7.00	120	6.00	6.00	-0.57	-1.22
XA%	0.89	0.06	0.75	0.95	120	0.89	0.94	-0.79	-0.05
WDA%	0.90	0.06	0.75	0.95	120	0.93	0.95	-1.29	0.86

(continued)

Table A.11 Continued.

Variable	8 Year Olds (N = 120)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
X+%	0.71	0.07	0.58	0.81	120	0.71	0.63	0.01	-1.33
X-%	0.09	0.04	0.05	0.19	120	0.09	0.06	0.80	-0.29
Xu%	0.18	0.06	0.12	0.32	120	0.18	0.13	0.89	-0.16
Isolate/R	0.23	0.04	0.14	0.27	120	0.24	0.19	-0.64	-0.47
H	1.87	1.03	1.00	4.00	120	1.00	1.00	0.64	-1.07
(H)	1.47	0.62	1.00	3.00	120	1.00	1.00	0.98	-0.05
HD	0.27	0.44	0.00	1.00	32	0.00	0.00	1.06	-0.87
(Hd)	1.20	0.54	1.00	3.00	120	1.00	1.00	2.65	5.75
Hx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
All H Cont	4.80	1.91	3.00	9.00	120	4.00	3.00	0.87	-0.45
A	9.27	1.44	7.00	12.00	120	9.00	8.00	0.34	-1.07
(A)	1.73	[0.58]	1.00	3.00	120	2.00	2.00	0.08	-0.46
Ad	0.33	[0.47]	0.00	1.00	40	0.00	0.00	0.71	-1.51
(Ad)	0.13	[0.34]	0.00	1.00	16	0.00	0.00	2.18	2.82
An	0.20	[0.40]	0.00	1.00	24	0.00	0.00	1.51	0.31
Art	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
Ay	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Bl	0.33	[0.47]	0.00	1.00	40	0.00	0.00	0.71	-1.51
Bt	1.45	0.65	0.00	3.00	118	1.00	1.00	0.75	0.04
Cg	1.80	1.17	1.00	4.00	120	1.00	1.00	0.90	-0.93
Cl	0.13	[0.34]	0.00	1.00	16	0.00	0.00	2.18	2.82
Ex	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Fi	0.33	[0.47]	0.00	1.00	40	0.00	0.00	0.71	-1.51
Food	0.20	[0.40]	0.00	1.00	24	0.00	0.00	1.51	0.31
Ge	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Hh	0.15	0.36	0.00	1.00	18	0.00	0.00	1.98	1.97
Ls	0.93	0.25	0.00	1.00	112	1.00	1.00	-3.51	10.56
Na	0.80	[0.40]	0.00	1.00	96	1.00	1.00	-1.51	0.31
Sc	2.45	[0.62]	1.00	3.00	120	3.00	3.00	-0.66	-0.50
Sx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Xy	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Idiographic	0.53	0.62	0.00	2.00	56	0.00	0.00	0.72	-0.43
DV	1.33	[0.70]	0.00	2.00	104	1.00	2.00	-0.57	-0.82
INCOM	2.07	[0.44]	1.00	3.00	120	2.00	2.00	0.31	2.04
DR	0.47	[0.62]	0.00	2.00	48	0.00	0.00	0.98	-0.05
FABCOM	0.55	[0.89]	0.00	3.00	42	0.00	0.00	1.60	1.65
DV2	0.07	[0.25]	0.00	1.00	8	0.00	0.00	3.51	10.56
INC2	0.13	[0.34]	0.00	1.00	16	0.00	0.00	2.18	2.82
DR2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
FAB2	0.13	[0.34]	0.00	1.00	16	0.00	0.00	2.18	2.82
ALOG	0.73	[0.44]	0.00	1.00	88	1.00	1.00	-1.06	-0.87
CONTAM	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	5.48	1.70	3.00	10.00	120	5.00	5.00	0.95	1.21
Lvl 2 Sp Sc	0.33	[0.47]	0.00	1.00	40	0.00	0.00	0.71	-1.51
WSum6	14.33	5.10	5.00	28.00	120	14.00	14.00	0.71	1.74
AB	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
AG	0.93	0.58	0.00	2.00	96	1.00	1.00	0.00	0.05
COP	1.93	1.00	1.00	4.00	120	2.00	1.00	0.54	-1.06
CP	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
GOODHR	4.98	2.29	1.00	9.00	120	4.00	4.00	0.48	-0.86
POORHR	0.68	0.83	0.00	3.00	56	0.00	0.00	0.83	-0.51
MOR	1.13	[0.34]	1.00	2.00	120	1.00	1.00	2.18	2.82
PER	0.33	0.47	0.00	1.00	40	0.00	0.00	0.71	-1.51
PSV	0.46	[0.78]	0.00	2.00	18	0.00	0.00	2.74	9.86

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

Table A.11 Continued.

Variable	9 Year Olds (N = 140)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
R	20.53	2.46	14.00	26.00	140	21.00	19.00	0.41	0.57
W	10.33	1.57	6.00	12.00	140	11.00	9.00	0.55	0.05
D	9.00	1.28	7.00	13.00	140	9.00	8.00	0.41	0.84
Dd	1.20	[0.84]	0.00	4.00	102	1.00	0.00	0.40	3.47
S	1.73	[0.58]	0.00	4.00	108	2.00	1.00	1.78	3.43
DQ+	6.40	1.94	3.00	12.00	138	7.00	6.00	0.64	2.57
DQo	11.67	1.80	7.00	14.00	140	11.00	10.00	-0.04	-0.68
DQv	1.61	[0.65]	0.00	4.00	72	1.00	0.00	0.50	-0.59
DQv/+	0.45	[0.65]	0.00	1.00	23	0.00	0.00	3.56	11.07
FQX+	0.26	0.31	0.00	1.00	5	0.00	0.00	4.18	13.67
FQXo	14.22	1.83	10.00	18.00	140	14.00	12.00	0.44	-0.37
FQXu	3.49	1.37	2.00	6.00	140	4.00	2.00	0.24	-1.34
FQX-	2.04	0.76	1.00	3.00	140	2.00	1.00	0.53	-1.07
FQXNone	0.38	[0.48]	0.00	2.00	31	0.00	0.00	0.73	-1.53
MQ+	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
MQo	3.12	1.62	1.00	6.00	140	2.00	2.00	0.68	-0.97
MQu	0.20	0.40	0.00	1.00	22	0.00	0.00	1.54	0.38
MQ-	0.37	[0.25]	0.00	2.00	7	0.00	0.00	3.27	10.61
MQNone	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
S-	0.13	[0.34]	0.00	1.00	29	0.00	0.00	2.21	3.00
M	3.12	1.85	1.00	7.00	140	3.00	2.00	0.79	-0.49
FM	4.22	1.47	3.00	9.00	140	4.00	4.00	0.71	0.64
m	0.67	0.58	0.00	3.00	66	0.00	0.00	0.14	3.65
FM+m	5.64	1.86	2.00	9.00	140	6.00	4.00	0.20	0.59
FC	1.89	0.86	0.00	3.00	131	2.00	1.00	0.40	2.47
CF	2.79	0.78	1.00	4.00	140	3.00	2.00	-0.38	2.01
C	0.43	[0.48]	0.00	2.00	22	0.00	0.00	0.73	2.53
Cn	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
FC+CF+C+Cn	4.15	0.72	3.00	9.00	140	6.00	5.00	-0.90	1.37
WSum C	5.13	1.07	2.50	7.50	140	4.00	3.50	0.80	0.22
Sum C'	1.16	[0.79]	0.00	4.00	104	1.00	1.00	0.92	1.66
Sum T	0.97	[0.63]	0.00	2.00	123	1.00	1.00	0.24	3.58
Sum V	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sum Y	0.83	[0.85]	0.00	3.00	102	1.00	1.00	0.37	-1.76
SumShd	2.96	1.27	1.00	6.00	140	2.00	2.00	0.18	-1.46
Fr+rF	0.42	[0.43]	0.00	1.00	26	0.00	0.00	0.73	2.53
FD	0.63	[0.34]	0.00	1.00	64	0.00	0.00	2.45	3.13
F	9.14	1.84	5.00	11.00	140	8.00	8.00	0.67	-0.58
PAIR	8.97	1.69	5.00	12.00	140	9.00	8.00	0.07	-0.60
3r(2)/R	0.57	0.12	0.30	0.88	140	0.60	0.55	0.18	0.54
LAMBDA	0.81	0.37	0.29	1.45	140	0.85	0.70	0.91	0.21
EA	8.25	1.95	4.00	11.50	140	8.00	6.50	0.38	0.56
es	8.60	2.59	4.00	13.00	140	7.00	6.00	0.07	1.31
D	-0.18	0.54	-3.00	1.00	140	0.00	0.00	1.18	1.44
AdjD	-0.10	0.41	-2.00	1.00	140	0.00	0.00	-1.32	3.44
a (active)	6.26	1.23	3.00	11.00	140	7.00	6.00	0.12	0.30
p (passive)	2.51	1.40	0.00	5.00	76	2.00	1.00	0.89	0.70
Ma	2.72	1.36	1.00	6.00	134	3.00	2.00	0.52	-1.01
Mp	0.27	0.45	0.00	1.00	61	0.00	0.00	1.28	1.86
Intellect	1.03	0.98	0.00	1.00	140	0.00	0.00	2.68	10.89
Zf	11.16	1.54	7.00	15.00	140	11.00	11.00	0.28	0.47
Zd	0.40	2.03	-4.50	6.00	140	0.00	0.00	0.23	0.73
Blends	4.38	1.23	2.00	7.00	140	5.00	5.00	-0.44	-0.92
Col Shd Bl	0.90	[0.56]	0.00	3.00	59	0.00	0.00	1.04	0.34
Afr	0.79	0.13	0.38	1.05	140	0.76	0.68	-0.44	0.03
Popular	5.78	0.63	4.00	7.00	140	6.00	5.00	-0.52	-1.02
XA%	0.91	0.07	0.67	1.00	140	0.91	0.95	-2.07	7.52
WDA%	0.92	0.05	0.71	1.00	140	0.91	0.95	-1.80	5.89

(continued)

Table A.11 Continued.

Variable	9 Year Olds (N = 140)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
X+%	0.74	0.07	0.61	0.85	140	0.77	0.79	-0.90	-0.22
X-%	0.09	0.06	0.05	0.25	140	0.07	0.09	-0.32	0.25
Xu%	0.17	0.07	0.10	0.33	140	0.18	0.15	0.81	-0.15
Isolate	0.16	0.05	0.06	0.32	140	0.14	0.17	-0.67	-0.34
H	2.87	1.03	0.00	6.00	138	2.00	2.00	0.66	-1.06
(H)	1.32	0.61	1.00	3.00	140	1.00	1.00	0.84	1.25
Hd	0.57	0.40	0.00	2.00	46	0.00	0.00	1.58	0.36
(Hd)	0.74	0.58	0.00	2.00	62	0.00	0.00	1.60	4.06
Hx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
All H Cont	5.50	1.62	2.00	8.00	140	5.00	4.00	0.59	-0.41
A	8.28	1.59	5.00	13.00	140	9.00	8.00	0.35	0.06
(A)	0.73	[0.68]	0.00	3.00	101	1.00	1.00	0.28	1.63
Ad	0.53	[0.98]	0.00	2.00	80	1.00	1.00	-0.63	2.73
(Ad)	0.23	[0.39]	0.00	1.00	13	0.00	0.00	3.27	4.00
An	0.36	[0.60]	0.00	3.00	34	0.00	0.00	2.54	2.38
Art	0.32	0.71	0.00	2.00	31	0.00	0.00	1.38	3.09
Ay	0.13	[0.28]	0.00	1.00	11	0.00	0.00	3.94	8.28
Bl	0.33	[0.48]	0.00	1.00	28	0.00	0.00	1.03	1.33
Bt	1.45	0.65	0.00	3.00	129	1.00	1.00	0.97	1.10
Cg	1.84	1.08	1.00	4.00	133	1.00	1.00	0.92	1.92
Cl	0.16	[0.39]	0.00	1.00	40	0.00	0.00	2.01	3.34
Ex	0.26	[0.54]	0.00	1.00	21	0.00	0.00	1.93	4.06
Fi	0.69	[0.68]	0.00	1.00	68	0.00	0.00	0.33	2.73
Fd	0.18	[0.46]	0.00	1.00	15	0.00	0.00	2.54	4.38
Ge	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Hh	0.59	0.36	0.00	1.00	49	0.00	0.00	2.11	2.07
Ls	0.93	0.59	0.00	3.00	107	1.00	1.00	-0.28	0.83
Na	0.70	[0.48]	0.00	2.00	96	1.00	1.00	-0.54	1.38
Sc	1.55	[0.72]	0.00	3.00	102	2.00	1.00	0.68	2.46
Sx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Xy	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Idio	0.63	0.42	0.00	1.00	48	0.00	0.00	0.84	1.40
DV	1.01	[0.61]	0.00	2.00	97	1.00	1.00	-0.08	2.80
INCOM	1.37	[0.75]	0.00	3.00	81	1.00	1.00	0.32	2.18
DR	0.67	[0.72]	0.00	2.00	91	1.00	1.00	-0.73	2.00
FABCOM	1.05	[0.89]	0.00	3.00	102	1.00	1.00	0.63	1.68
DV2	0.07	[0.21]	0.00	1.00	6	0.00	0.00	1.56	12.07
INC2	0.11	[0.59]	0.00	1.00	7	0.00	0.00	1.27	11.40
DR2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
FAB2	0.05	[0.39]	0.00	1.00	3	0.00	0.00	0.68	13.00
ALOG	0.61	[0.49]	0.00	1.00	56	0.00	0.00	1.08	3.86
CONTAM	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
Sum6 Sp Sc	5.95	2.16	1.00	9.00	140	6.00	6.00	0.74	0.52
Sum6 Sp Sc2	0.27	[0.51]	0.00	2.00	14	0.00	0.00	0.63	6.53
WSum6	13.06	4.72	3.00	26.00	140	12.00	11.00	0.92	0.86
AB	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
AG	1.37	0.78	0.00	4.00	128	2.00	1.00	0.67	1.11
COP	2.03	1.14	0.00	5.00	136	2.00	2.00	0.18	1.05
CP	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
GOODHR	4.11	1.42	1.00	8.00	140	4.00	4.00	0.17	-0.78
POORHR	1.86	1.02	0.00	5.00	140	1.00	1.00	1.62	6.02
MOR	0.87	[0.64]	0.00	4.00	116	1.00	1.00	-0.41	1.87
PER	1.16	0.78	0.00	6.00	99	1.00	1.00	0.73	-1.53
PSV	0.26	[0.61]	0.00	2.00	29	0.00	0.00	1.04	4.14

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

Table A.11 Continued.

Variable	10 Year Olds (N = 120)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
R	20.97	1.92	18.00	25.00	120	19.00	19.00	0.85	-0.39
W	9.52	0.87	9.00	12.00	120	9.00	9.00	1.59	1.46
D	10.10	1.48	8.00	13.00	120	10.00	9.00	0.31	-1.32
Dd	1.35	[0.44]	0.00	3.00	119	0.00	0.00	1.17	-0.64
S	1.48	[0.70]	1.00	3.00	107	1.00	1.00	1.12	-0.08
DQ+	7.68	0.96	3.00	9.00	120	8.00	7.00	-0.48	-0.18
DQo	12.07	1.78	9.00	17.00	120	12.00	11.00	0.08	0.01
DQv	0.53	[0.50]	0.00	2.00	64	1.00	1.00	-0.14	-2.02
DQv/+	0.38	[0.28]	0.00	1.00	36	0.00	0.00	3.05	7.45
FQX+	0.30	0.50	0.00	1.00	11	0.00	0.00	4.04	9.15
FQXo	15.80	1.98	13.00	21.00	120	15.00	15.00	0.81	0.33
FQXu	2.95	0.79	1.00	4.00	120	3.00	3.00	-0.54	0.12
FQX-	1.58	1.03	0.00	6.00	104	2.00	2.00	1.74	6.56
FQXNone	0.13	[0.34]	0.00	1.00	29	0.00	0.00	2.19	2.82
MQ+	0.08	0.21	0.00	1.00	2	0.00	0.00	4.80	13.25
MQo	3.23	1.48	1.00	6.00	120	3.00	3.00	0.22	-0.78
MQu	0.25	0.44	0.00	1.00	30	0.00	0.00	1.17	-0.64
MQ-	0.17	[0.37]	0.00	2.00	21	0.00	0.00	1.81	1.30
MQNone	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
S-	0.12	[0.32]	0.00	1.00	14	0.00	0.00	2.42	3.91
M	3.65	1.63	1.00	7.00	120	4.00	3.00	-0.04	-0.69
FM	5.53	1.46	3.00	7.00	120	6.00	7.00	-0.43	-1.38
m	1.08	0.28	1.00	2.00	120	1.00	1.00	3.05	7.45
FM+m	6.62	1.40	4.00	8.00	120	7.00	8.00	-0.56	-1.06
FC	2.55	0.96	1.00	4.00	120	2.00	2.00	0.44	-1.03
CF	3.68	1.29	2.00	6.00	120	3.50	5.00	0.14	-1.27
C	0.13	[0.34]	0.00	2.00	29	0.00	0.00	2.19	2.82
Cn	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
FC+CF+C+Cn	6.37	1.50	4.00	8.00	120	7.00	8.00	-0.41	-1.30
WSum C	5.16	1.25	3.00	7.00	120	5.00	4.00	-0.23	-1.26
Sum C'	0.79	[0.85]	0.00	4.00	73	1.00	1.00	0.41	0.44
Sum T	0.98	[0.39]	0.00	2.00	106	1.00	1.00	-0.16	3.86
Sum V	0.02	[0.13]	0.00	1.00	2	0.00	0.00	7.65	57.43
Sum Y	0.43	[0.65]	0.00	2.00	34	0.00	0.00	0.82	-0.37
SumShd	1.83	1.32	1.00	6.00	120	3.00	4.00	0.06	-1.16
Fr+rF	0.35	[0.36]	0.00	1.00	36	0.00	0.00	1.98	1.97
FD	0.67	[0.58]	0.00	2.00	78	1.00	1.00	1.33	0.81
F	6.38	2.04	3.00	12.00	120	5.50	5.00	0.57	-0.73
PAIR	9.62	1.36	6.00	12.00	120	9.00	9.00	-0.29	0.09
3r(2)/R	0.54	0.07	0.29	0.68	120	0.52	0.47	-0.71	6.30
LAMBDA	0.49	0.23	0.19	1.11	120	0.36	0.36	0.90	-0.23
EA	8.81	1.36	4.00	11.00	120	9.00	7.00	-0.37	1.09
es	8.45	1.90	5.00	12.00	120	8.00	7.00	-0.33	-0.89
D	-0.15	0.44	-2.00	1.00	120	0.00	0.00	-1.89	5.07
AdjD	-0.12	0.49	-2.00	1.00	120	0.00	0.00	-1.17	3.81
a (active)	7.15	1.37	6.00	11.00	120	8.00	7.00	0.32	-0.74
p (passive)	3.27	0.66	1.00	4.00	120	2.00	2.00	1.46	1.91
Ma	2.82	1.09	1.00	5.00	120	3.00	3.00	-0.10	-0.63
Mp	0.98	0.83	0.00	3.00	88	1.00	1.00	0.93	0.76
Intellect	0.53	0.56	0.00	2.00	120	0.50	0.00	0.44	-0.81
Zf	13.52	1.19	11.00	16.00	120	13.50	13.00	-0.19	-0.27
Zd	-0.13	2.32	-5.00	5.00	120	0.00	-3.00	0.22	-0.35
Blends	5.80	1.05	3.00	7.00	120	6.00	7.00	-0.39	-0.70
Col Shd Blend	0.42	[0.13]	0.00	1.00	22	0.00	0.00	7.65	57.43
Afr	0.63	0.09	0.50	0.85	120	0.58	0.58	0.94	-0.05
Popular	6.07	0.84	3.00	7.00	120	6.00	6.00	-1.01	1.55
XA%	0.92	0.04	0.75	1.00	120	0.91	0.95	-1.44	5.47
WDA%	0.93	0.04	0.78	1.00	120	0.95	0.95	-1.24	3.22

(continued)

Table A.11 Continued.

Variable	10 Year Olds (N = 120)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
X+%	0.77	0.05	0.62	0.85	120	0.79	0.79	-0.85	1.39
X-%	0.07	0.05	0.00	0.25	104	0.07	0.05	1.46	5.42
Xu%	0.15	0.05	0.05	0.21	120	0.16	0.16	-0.43	-0.53
Isolate/R	0.19	0.03	0.14	0.26	120	0.19	0.16	0.67	-0.53
H	2.47	1.12	1.00	5.00	120	3.00	3.00	0.01	-0.83
(H)	1.48	0.74	0.00	2.00	102	2.00	2.00	-1.06	-0.37
HD	0.25	0.47	0.00	2.00	28	0.00	0.00	1.64	1.80
(Hd)	0.85	0.36	0.00	1.00	102	1.00	1.00	-1.98	1.97
Hx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
All H Cont	5.05	1.64	2.00	8.00	120	6.00	6.00	-0.58	-0.59
A	8.92	1.18	7.00	11.00	120	9.00	9.00	0.54	-0.43
(A)	1.20	[0.77]	0.00	3.00	96	1.00	1.00	-0.14	-0.88
Ad	1.35	[1.08]	0.00	3.00	76	2.00	2.00	-0.25	-1.49
(Ad)	0.07	[0.25]	0.00	1.00	8	0.00	0.00	3.51	10.56
An	0.67	[0.57]	0.00	2.00	74	1.00	1.00	0.14	-0.66
Art	0.53	0.56	0.00	2.00	60	0.50	0.00	0.43	-0.81
Ay	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Bl	0.60	[0.59]	0.00	2.00	66	1.00	1.00	0.36	-0.70
Bt	2.17	0.74	1.00	4.00	120	2.00	2.00	0.49	0.33
Cg	1.48	1.03	0.00	3.00	102	1.00	1.00	0.32	-1.10
Cl	0.08	[0.28]	0.00	1.00	10	0.00	0.00	3.05	7.45
Ex	0.08	[0.28]	0.00	1.00	10	0.00	0.00	3.05	7.45
Fi	0.75	[0.44]	0.00	1.00	90	1.00	1.00	-1.16	-0.64
Food	0.53	[0.50]	0.00	1.00	64	1.00	1.00	-0.13	-2.02
Ge	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Hh	0.60	0.49	0.00	1.00	72	1.00	1.00	-0.41	-1.86
Ls	1.00	0.45	0.00	2.00	108	1.00	1.00	0.00	2.14
Na	0.30	[0.46]	0.00	1.00	36	0.00	0.00	0.88	-1.24
Sc	2.85	[0.40]	2.00	4.00	120	3.00	3.00	-1.16	1.62
Sx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Xy	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Idiographic	0.08	0.28	0.00	1.00	10	0.00	0.00	3.05	7.45
DV	1.00	[0.00]	1.00	1.00	120	1.00	1.00	—	—
INCOM	1.35	[0.51]	1.00	3.00	120	1.00	1.00	1.01	-0.16
DR	0.08	[0.28]	0.00	1.00	10	0.00	0.00	3.05	7.45
FABCOM	0.35	[0.48]	0.00	1.00	42	0.00	0.00	0.63	-1.62
DV2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
INC2	0.23	[0.43]	0.00	1.00	28	0.00	0.00	1.27	-0.38
DR2	0.02	[0.13]	0.00	1.00	2	0.00	0.00	7.64	57.43
FAB2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
ALOG	0.37	[0.48]	0.00	1.00	44	0.00	0.00	0.56	-1.72
CONTAM	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	3.40	1.10	2.00	6.00	120	3.00	3.00	1.29	0.85
Lvl 2 Sp Sc	0.25	[0.44]	0.00	1.00	30	0.00	0.00	1.16	-0.64
WSum6	8.22	3.79	3.00	17.00	120	7.00	7.00	1.07	0.65
AB	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
AG	1.57	0.62	1.00	3.00	120	1.50	1.00	0.61	-0.55
COP	1.73	0.84	1.00	4.00	120	2.00	2.00	1.41	1.94
CP	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
GOODHR	5.32	1.53	2.00	8.00	120	5.00	5.00	0.02	-0.72
POORHR	1.10	0.65	0.00	3.00	104	1.00	1.00	0.63	1.22
MOR	0.55	[0.62]	0.00	2.00	58	0.00	0.00	0.66	-0.50
PER	0.75	0.44	0.00	1.00	90	1.00	1.00	-1.16	-0.64
PSV	0.05	[0.22]	0.00	1.00	6	0.00	0.00	4.18	15.75

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

Table A.11 Continued.

Variable	11 Year Olds (N = 135)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
R	21.29	2.43	15.00	27.00	135	22.00	19.00	0.93	0.29
W	9.61	0.95	9.00	12.00	135	9.00	9.00	1.49	1.06
D	10.01	1.31	9.00	13.00	135	11.00	11.00	0.05	-1.09
Dd	1.67	[1.13]	0.00	4.00	128	0.00	0.00	2.12	3.75
S	1.75	[0.68]	1.00	3.00	135	2.00	2.00	0.36	-0.81
DQ+	8.07	1.22	6.00	10.00	135	8.00	7.00	0.10	-1.08
DQo	12.08	2.14	9.00	17.00	135	12.00	11.00	0.73	0.25
DQv	0.64	[0.88]	0.00	3.00	63	0.00	0.00	1.57	1.99
DQv/+	0.50	[0.69]	0.00	2.00	41	0.00	0.00	1.98	2.39
FQX+	0.21	0.38	0.00	1.00	9	0.00	0.00	3.08	11.42
FQXo	15.83	1.40	13.00	18.00	135	16.00	17.00	-0.29	-1.09
FQXu	3.18	1.26	1.00	6.00	135	3.00	3.00	0.52	0.49
FQX-	2.20	1.87	0.00	7.00	125	2.00	2.00	1.73	2.02
FQXNone	0.18	[0.27]	0.00	1.00	18	0.00	0.00	3.09	7.69
MQ+	0.11	0.45	0.00	1.00	3	0.00	0.00	4.24	13.85
MQo	3.59	1.38	1.00	6.00	135	4.00	3.00	-0.15	-0.69
MQu	0.33	0.47	0.00	1.00	44	0.00	0.00	0.75	-1.46
MQ-	0.20	[0.40]	0.00	1.00	27	0.00	0.00	1.52	0.30
MQNone	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
S-	0.31	[0.46]	0.00	1.00	52	0.00	0.00	0.82	-1.34
M	4.12	1.67	1.00	7.00	135	4.00	3.00	0.08	-0.56
FM	4.48	1.21	2.00	7.00	135	6.00	4.00	-0.51	-0.65
m	1.00	0.89	0.00	2.00	122	1.00	1.00	0.84	1.69
FM+m	5.48	1.21	4.00	8.00	135	7.00	7.00	-0.51	-0.65
FC	2.93	0.95	1.00	4.00	135	3.00	4.00	-0.19	-1.29
CF	3.43	1.13	2.00	6.00	135	4.00	4.00	0.10	-1.14
C	0.28	[0.27]	0.00	1.00	17	0.00	0.00	3.09	7.69
Cn	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
FC+CF+C+Cn	6.44	1.39	4.00	8.00	135	7.00	7.00	-0.57	-0.93
WSum C	4.02	1.15	2.50	8.00	135	5.00	4.00	-0.36	-1.06
Sum C'	1.06	[0.71]	0.00	2.00	105	1.00	1.00	-0.09	-0.99
Sum T	0.94	[0.47]	0.00	2.00	116	1.00	1.00	-0.20	1.55
Sum V	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Sum Y	0.85	[0.70]	0.00	2.00	91	1.00	1.00	0.21	-0.92
SumShd	2.85	1.10	1.00	4.00	135	3.00	4.00	-0.32	-1.31
Fr+rF	0.21	[0.41]	0.00	1.00	29	0.00	0.00	1.40	-0.03
FD	0.91	[0.84]	0.00	2.00	92	0.00	0.00	0.59	-1.34
F	6.70	2.37	4.00	12.00	135	6.00	5.00	1.12	0.09
PAIR	9.90	1.08	7.00	12.00	135	10.00	10.00	-0.31	0.86
3r(2)/R	0.53	0.04	0.35	0.75	135	0.58	0.50	0.44	0.38
LAMBDA	0.68	0.22	0.27	1.50	135	0.69	0.60	0.89	-0.62
EA	8.14	1.37	7.00	12.00	135	8.00	7.00	0.57	-0.53
es	8.33	1.72	4.00	12.00	135	9.00	7.00	-0.22	-1.08
D	-0.09	0.29	-1.00	0.00	135	0.00	0.00	-2.92	6.63
AdjD	-0.06	0.34	-1.00	1.00	135	0.00	0.00	-1.00	5.32
a (active)	7.89	1.42	6.00	11.00	135	8.00	7.00	0.67	-0.27
p (passive)	2.79	1.60	2.00	8.00	135	2.00	2.00	2.08	3.12
Ma	2.81	1.01	1.00	5.00	135	3.00	3.00	0.29	-0.01
Mp	1.38	1.33	0.00	5.00	104	1.00	1.00	1.26	0.76
Intellect	0.77	0.65	0.00	2.00	135	1.00	1.00	0.26	-0.67
Zf	13.70	1.22	11.00	16.00	135	14.00	15.00	-0.30	-0.72
Zd	0.60	2.74	-4.50	4.50	135	1.00	4.50	-0.07	-1.15
Blends	6.04	1.41	3.00	8.00	135	6.00	7.00	-0.28	-1.05
Col Shd Bl	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Afr	0.62	0.09	0.47	0.80	135	0.58	0.58	0.33	-0.90
Popular	6.06	0.86	4.00	9.00	135	7.00	5.00	-0.76	-0.78
XA%	0.90	0.07	0.74	1.00	135	0.91	0.91	-1.51	1.55
WDA%	0.92	0.04	0.78	1.00	135	0.95	0.95	-1.47	2.85

(continued)

Table A.11 Continued.

Variable	11 Year Olds (N = 135)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
X+%	0.75	0.08	0.52	0.85	135	0.77	0.79	-1.65	2.46
X-%	0.10	0.07	0.00	0.26	125	0.09	0.09	1.41	1.41
Xu%	0.15	0.05	0.05	0.24	135	0.16	0.14	-0.34	-0.35
Isolate/R	0.20	0.05	0.14	0.37	135	0.18	0.17	2.06	4.31
H	2.80	1.27	1.00	5.00	135	3.00	3.00	0.22	-0.71
(H)	1.51	0.66	0.00	2.00	123	2.00	2.00	-1.00	-0.12
HD	0.52	0.66	0.00	2.00	58	0.00	0.00	0.89	-0.30
(Hd)	0.87	0.33	0.00	1.00	118	1.00	1.00	-2.28	3.25
Hx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
All H Cont	5.70	1.80	2.00	9.00	135	6.00	6.00	-0.22	0.04
A	8.59	1.25	7.00	11.00	135	8.00	8.00	0.83	-0.19
(A)	1.00	[0.83]	0.00	2.00	89	1.00	0.00	0.00	-1.55
Ad	1.54	[0.95]	0.00	3.00	101	2.00	2.00	-0.75	-0.78
(Ad)	0.16	[0.36]	0.00	1.00	21	0.00	0.00	1.92	1.72
An	0.73	[0.64]	0.00	2.00	85	1.00	1.00	0.29	-0.66
Art	0.56	0.50	0.00	1.00	76	1.00	1.00	-0.25	-1.96
Ay	0.21	[0.59]	0.00	2.00	16	0.00	0.00	2.62	5.19
Bl	0.44	[0.57]	0.00	2.00	54	0.00	0.00	0.87	-0.24
Bt	2.10	0.67	1.00	4.00	135	2.00	2.00	0.65	1.16
Cg	1.60	0.99	0.00	3.00	122	1.00	1.00	0.26	-1.15
Cl	0.06	[0.24]	0.00	1.00	8	0.00	0.00	3.77	12.44
Ex	0.03	[0.17]	0.00	1.00	4	0.00	0.00	5.61	29.92
Fi	0.85	[0.36]	0.00	1.00	115	1.00	1.00	-2.00	2.04
Food	0.64	[0.48]	0.00	1.00	87	1.00	1.00	-0.61	-1.65
Ge	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Hh	0.82	0.46	0.00	2.00	106	1.00	1.00	-0.65	0.55
Ls	1.28	0.61	0.00	2.00	124	1.00	1.00	-0.22	-0.58
Na	0.35	[0.48]	0.00	1.00	47	0.00	0.00	0.64	-1.61
Sc	2.96	[0.36]	2.00	4.00	135	3.00	3.00	-0.57	4.57
Sx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Xy	0.09	[0.29]	0.00	1.00	12	0.00	0.00	2.92	6.63
Idio	0.06	0.34	0.00	2.00	4	0.00	0.00	5.61	29.92
DV	1.21	[0.41]	1.00	2.00	135	1.00	1.00	1.46	0.13
INCOM	1.44	[0.63]	0.00	3.00	131	1.00	1.00	0.42	-0.07
DR	0.12	[0.32]	0.00	1.00	16	0.00	0.00	2.38	3.75
FABCOM	0.36	[0.48]	0.00	1.00	48	0.00	0.00	0.61	-1.65
DV2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
INC2	0.12	[0.32]	0.00	1.00	16	0.00	0.00	2.38	3.75
DR2	0.03	[0.17]	0.00	1.00	4	0.00	0.00	5.61	29.92
FAB2	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
ALOG	0.24	[0.43]	0.00	1.00	33	0.00	0.00	1.20	-0.56
CONTAM	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	3.51	1.09	2.00	6.00	135	3.00	3.00	0.58	-0.53
Lvl 2 Sp Sc	0.15	[0.36]	0.00	1.00	20	0.00	0.00	2.00	2.04
WSum6	7.73	3.04	3.00	16.00	135	8.00	7.00	0.77	1.10
AB	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
AG	1.42	0.57	1.00	3.00	135	1.00	1.00	0.93	-0.11
COP	1.56	0.50	1.00	2.00	135	2.00	2.00	-0.22	-1.98
CP	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
GOODHR	5.65	1.49	3.00	8.00	135	5.00	5.00	0.09	-0.83
POORHR	1.12	0.53	0.00	2.00	123	1.00	1.00	0.11	0.38
MOR	0.42	[0.57]	0.00	2.00	52	0.00	0.00	0.93	-0.11
PER	0.88	0.53	0.00	2.00	107	1.00	1.00	-0.11	0.38
PSV	0.04	[0.21]	0.00	1.00	6	0.00	0.00	4.47	18.26

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

Table A.11 Continued.

Variable	12 Year Olds (N = 120)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
R	21.40	2.05	14.00	23.00	120	20.00	22.00	-1.03	0.96
W	8.79	1.85	1.00	14.00	120	9.00	9.00	-1.94	7.05
D	10.85	1.96	1.00	13.00	120	11.00	12.00	-3.26	12.20
Dd	1.76	[1.11]	0.00	5.00	117	1.00	1.00	3.51	16.47
S	1.92	[0.76]	0.00	5.00	118	2.00	2.00	1.30	4.92
DQ+	8.16	1.90	2.00	10.00	120	8.00	10.00	-1.42	2.39
DQo	12.12	1.07	9.00	15.00	120	12.00	12.00	-0.13	1.90
DQv	1.03	[0.26]	0.00	2.00	72	1.00	1.00	0.65	2.43
DQv/+	0.38	[0.38]	0.00	2.00	16	0.00	0.00	3.62	13.45
FQX+	0.30	0.54	0.00	2.00	10	0.00	0.00	4.16	16.95
FQXo	15.34	2.32	5.00	17.00	120	16.00	17.00	-2.40	6.80
FQXu	3.77	0.89	1.00	5.00	120	4.00	3.00	-0.95	1.08
FQX-	1.95	1.04	1.00	7.00	120	2.00	2.00	3.71	16.47
FQXNone	0.43	[0.26]	0.00	2.00	42	0.00	0.00	2.65	7.43
MQ+	0.10	0.30	0.00	1.00	5	0.00	0.00	7.45	45.23
MQo	3.21	1.52	1.00	5.00	120	3.00	5.00	-0.33	-1.26
MQu	0.67	0.51	0.00	2.00	78	1.00	1.00	-0.32	-1.01
MQ-	0.22	[0.41]	0.00	1.00	26	0.00	0.00	1.39	-0.06
MQNone	0.02	[0.13]	0.00	1.00	2	0.00	0.00	7.65	57.43
S-	0.57	[0.62]	0.00	3.00	63	1.00	1.00	1.02	2.14
M	4.21	2.06	1.00	7.00	120	4.00	4.00	-0.22	-1.07
FM	5.02	1.66	0.00	9.00	118	6.00	4.00	-1.34	1.64
m	1.00	0.45	0.00	3.00	112	1.00	1.00	2.26	12.57
FM+m	6.02	1.70	1.00	9.00	120	7.00	7.00	-1.44	1.83
FC	2.87	1.17	0.00	4.00	106	3.00	3.00	-1.61	1.77
CF	3.14	1.40	0.00	5.00	112	3.00	3.00	-0.55	-0.30
C	0.39	[0.13]	0.00	1.00	38	0.00	0.00	1.65	7.43
Cn	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
FC+CF+C+Cn	6.03	2.29	0.00	8.00	119	7.00	7.00	-1.49	1.26
WSum C	4.05	1.78	0.00	6.50	120	5.00	6.50	-1.17	0.69
Sum C'	1.08	[0.88]	0.00	3.00	99	1.00	1.00	0.38	-0.47
Sum T	0.88	[0.32]	0.00	1.00	106	1.00	1.00	-2.42	3.91
Sum V	0.07	[0.36]	0.00	2.00	4	0.00	0.00	5.27	26.16
Sum Y	1.01	[0.67]	0.00	2.00	108	2.00	2.00	-1.04	-0.13
SumShd	3.74	1.37	0.00	6.00	114	4.00	4.00	-0.98	1.25
Fr+rF	0.20	[0.13]	0.00	1.00	15	0.00	0.00	3.65	17.43
FD	1.48	[0.83]	0.00	2.00	94	2.00	2.00	-1.11	-0.61
F	5.84	1.65	5.00	13.00	120	5.00	5.00	2.75	7.47
PAIR	9.09	1.89	1.00	10.00	120	10.00	10.00	-2.89	9.00
3r(2)/R	0.54	0.08	0.10	0.50	120	0.55	0.50	-3.53	16.28
LAMBDA	0.66	0.58	0.29	4.25	120	0.70	0.50	5.18	30.28
EA	8.26	2.38	1.00	12.00	120	8.50	7.00	-1.38	1.99
es	8.97	2.59	1.00	13.00	120	8.00	6.00	-2.08	3.95
D	-0.21	0.53	-2.00	1.00	120	0.00	0.00	-1.17	2.25
AdjD	-0.11	0.67	-2.00	2.00	120	0.00	0.00	-0.04	1.74
a (active)	6.53	1.45	2.00	8.00	120	7.00	6.00	-1.34	2.04
p (passive)	4.00	2.01	0.00	8.00	118	3.00	2.00	0.50	-0.57
Ma	2.47	0.80	0.00	4.00	118	2.00	2.00	0.32	0.24
Mp	1.73	1.60	0.00	5.00	92	2.00	2.00	-0.06	-1.04
Intellect	1.05	0.59	0.00	4.00	120	1.00	1.00	2.96	12.69
Zf	13.14	1.96	5.00	16.00	120	14.00	14.00	-2.25	6.48
Zd	1.67	2.11	-4.50	5.00	120	1.50	1.50	-0.24	-0.26
Blends	6.67	2.29	0.00	9.00	118	7.00	8.00	-1.79	2.12
Col Shd Bl	0.05	[0.22]	0.00	1.00	6	0.00	0.00	4.18	15.75
Afr	0.65	0.11	0.21	0.67	120	0.69	0.67	-0.80	0.75
Popular	6.22	1.10	2.00	7.00	120	7.00	6.00	-1.53	2.56
XA%	0.90	0.06	0.59	0.95	120	0.91	0.91	-4.09	18.15
WDA%	0.93	0.05	0.67	1.00	120	0.95	0.95	-3.57	14.97

(continued)

Table A.11 Continued.

Variable	12 Year Olds (N = 120)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
X+%	0.75	0.09	0.29	0.88	120	0.77	0.77	-3.32	14.09
X-%	0.10	0.06	0.05	0.41	120	0.09	0.09	4.04	19.33
Xu%	0.15	0.05	0.05	0.29	120	0.15	0.14	-0.27	2.29
Isolate/R	0.15	0.04	0.00	0.33	118	0.16	0.18	0.18	5.42
H	3.38	1.64	1.00	5.00	120	3.00	5.00	-0.36	-1.42
(H)	1.24	0.84	0.00	4.00	97	1.00	1.00	0.38	0.53
HD	0.59	0.69	0.00	3.00	61	1.00	0.00	1.36	2.75
(Hd)	0.78	0.41	0.00	1.00	94	1.00	1.00	-1.39	-0.06
Hx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
All H Cont	6.00	2.56	2.00	11.00	120	5.00	5.00	-0.23	-1.18
A	7.70	1.29	4.00	13.00	120	8.00	7.00	0.65	4.48
(A)	0.48	[0.50]	0.00	1.00	57	0.00	0.00	0.10	-2.02
Ad	1.97	[0.45]	0.00	3.00	116	2.00	2.00	-2.43	11.96
(Ad)	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
An	1.14	[0.60]	0.00	2.00	106	1.00	1.00	-0.05	-0.27
Art	0.92	0.28	0.00	1.00	110	1.00	1.00	-3.05	7.45
Ay	0.03	[0.18]	0.00	1.00	4	0.00	0.00	5.26	26.16
Bl	0.26	[0.44]	0.00	1.00	31	0.00	0.00	1.11	-0.76
Bt	1.52	0.65	0.00	2.00	110	2.00	2.00	-1.03	-0.03
Cg	1.90	1.06	0.00	4.00	116	1.00	1.00	0.11	-1.63
Cl	0.02	[0.13]	0.00	1.00	2	0.00	0.00	7.64	57.43
Ex	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Fi	0.97	[0.26]	0.00	2.00	114	1.00	1.00	-1.61	12.13
Food	0.87	[0.34]	0.00	1.00	104	1.00	1.00	-2.18	2.82
Ge	0.02	[0.13]	0.00	1.00	2	0.00	0.00	7.64	57.43
Hh	0.88	0.32	0.00	1.00	106	1.00	1.00	-2.41	3.91
Ls	1.36	0.61	0.00	2.00	112	1.00	1.00	-0.36	-0.65
Na	0.10	[0.35]	0.00	2.00	10	0.00	0.00	3.78	14.82
Sc	2.48	[0.87]	0.00	3.00	112	3.00	3.00	-1.71	2.12
Sx	0.02	[0.13]	0.00	1.00	2	0.00	0.00	7.64	57.43
Xy	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Idio	0.15	0.51	0.00	3.00	12	0.00	0.00	4.02	17.31
DV	1.21	[0.55]	0.00	2.00	112	1.00	1.00	0.08	-0.13
INCOM	1.35	[0.58]	0.00	3.00	116	1.00	1.00	0.34	-0.10
DR	0.24	[0.43]	0.00	1.00	29	0.00	0.00	1.22	-0.52
FABCOM	0.26	[0.53]	0.00	2.00	26	0.00	0.00	1.95	2.99
DV2	0.03	[0.16]	0.00	1.00	3	0.00	0.00	6.16	36.58
INC2	0.18	[0.56]	0.00	3.00	13	0.00	0.00	3.54	12.65
DR2	0.03	[0.16]	0.00	1.00	3	0.00	0.00	6.16	36.58
FAB2	0.04	[0.20]	0.00	1.00	5	0.00	0.00	4.64	19.91
ALOG	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
CONTAM	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	3.33	1.11	1.00	8.00	120	4.00	4.00	0.82	3.59
Lvl 2 Sp Sc	0.27	[0.68]	0.00	4.00	22	0.00	0.00	3.47	14.41
WSum6	6.86	3.85	2.00	26.00	120	7.00	3.00	2.32	9.04
AB	0.05	[0.22]	0.00	1.00	6	0.00	0.00	4.18	15.75
AG	1.08	0.66	0.00	2.00	99	1.00	1.00	-0.08	-0.65
COP	1.23	0.53	0.00	2.00	114	1.00	1.00	0.17	-0.19
CP	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
GOODHR	5.77	1.84	2.00	8.00	120	6.00	6.00	-0.65	-0.89
POORHR	1.01	0.98	0.00	7.00	97	1.00	1.00	3.97	22.18
MOR	0.17	[0.37]	0.00	1.00	20	0.00	0.00	1.81	1.30
PER	0.93	0.36	0.00	2.00	108	1.00	1.00	-0.88	4.40
PSV	0.03	[0.18]	0.00	1.00	4	0.00	0.00	5.26	26.16

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

Table A.11 Continued.

Variable	13 Year Olds (N = 110)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
R	21.20	3.30	14.00	33.00	110	20.00	20.00	1.07	3.51
W	8.57	2.15	1.00	14.00	110	9.00	9.00	-1.07	3.04
D	11.15	3.09	1.00	21.00	110	11.00	12.00	-0.25	3.08
Dd	1.46	[1.66]	0.00	6.00	93	1.00	1.00	2.74	7.81
S	1.33	[1.16]	0.00	7.00	106	2.00	1.00	1.93	5.93
DQ+	7.70	2.54	2.00	15.00	110	8.00	8.00	0.24	1.27
DQo	12.40	2.02	8.00	20.00	110	12.00	12.00	0.73	2.74
DQv	0.45	[0.99]	0.00	4.00	24	0.00	0.00	2.31	4.70
DQv/+	0.24	[0.57]	0.00	2.00	18	0.00	0.00	2.33	4.18
FQX+	0.20	0.59	0.00	3.00	14	0.00	0.00	3.25	10.63
FQXo	15.24	3.04	5.00	23.00	110	15.00	17.00	-0.70	2.09
FQXu	3.27	1.53	0.00	8.00	106	3.00	3.00	0.42	1.24
FQX-	2.00	1.42	0.00	7.00	108	2.00	2.00	2.15	4.81
FQXNone	0.07	[0.32]	0.00	2.00	6	0.00	0.00	4.81	23.90
MQ+	0.13	0.43	0.00	2.00	10	0.00	0.00	3.52	11.76
MQo	3.23	1.66	1.00	8.00	110	3.00	5.00	0.34	-0.38
MQu	0.54	0.66	0.00	3.00	51	0.00	0.00	1.23	2.00
MQ-	0.14	[0.51]	0.00	2.00	12	0.00	0.00	2.08	3.61
MQNone	0.02	[0.13]	0.00	1.00	2	0.00	0.00	7.31	52.42
S-	0.52	[0.81]	0.00	4.00	43	0.00	0.00	2.16	5.84
M	4.14	2.24	1.00	11.00	110	4.00	4.00	0.50	-0.01
FM	4.42	1.94	0.00	8.00	108	4.00	6.00	-0.25	-0.89
m	1.25	0.94	0.00	5.00	98	1.00	1.00	1.88	4.46
FM+m	5.67	2.10	1.00	11.00	110	6.00	7.00	-0.28	-0.34
FC	2.95	1.72	0.00	9.00	96	3.00	3.00	0.42	1.72
CF	2.70	1.50	0.00	5.00	102	3.00	3.00	-0.07	-0.98
C	0.07	[0.26]	0.00	1.00	8	0.00	0.00	3.34	9.30
Cn	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
FC+CF+C+Cn	5.73	2.61	0.00	10.00	110	6.50	8.00	-0.71	-0.33
WSum C	4.29	1.94	0.00	7.50	110	4.75	6.50	-0.61	-0.49
Sum C'	1.20	[0.89]	0.00	3.00	87	1.00	1.00	0.48	-0.37
Sum T	0.97	[0.51]	0.00	3.00	90	1.00	1.00	0.64	4.99
Sum V	0.14	[0.48]	0.00	2.00	10	0.00	0.00	3.31	9.70
Sum Y	1.02	[0.81]	0.00	2.00	80	1.00	2.00	-0.22	-1.44
SumShd	3.34	1.44	0.00	6.00	104	4.00	4.00	-0.55	-0.07
Fr+rF	0.45	[0.23]	0.00	1.00	32	0.00	0.00	2.98	4.08
FD	1.27	[0.87]	0.00	3.00	82	2.00	2.00	-0.39	-1.25
F	6.90	2.52	3.00	13.00	110	6.00	5.00	0.93	-0.20
PAIR	8.64	2.30	1.00	14.00	110	9.50	10.00	-1.18	2.59
3r(2)/R	0.49	0.10	0.20	0.66	110	0.48	0.50	-1.84	4.97
LAMBDA	0.67	0.61	0.20	4.33	110	0.38	0.33	4.44	24.00
EA	8.43	2.69	1.00	15.00	110	9.00	7.50	-0.60	0.64
es	9.01	3.01	1.00	14.00	110	10.00	8.00	-0.83	-0.02
D	-0.09	0.82	-2.00	3.00	110	0.00	0.00	0.78	3.45
AdjD	0.10	0.84	-2.00	3.00	110	0.00	0.00	0.74	2.06
a (active)	6.23	1.89	2.00	11.00	110	6.00	6.00	-0.34	0.13
p (passive)	3.61	2.11	0.00	8.00	104	3.00	3.00	0.45	-0.49
Ma	2.49	1.30	0.00	8.00	106	2.00	2.00	1.80	6.06
Mp	1.67	1.44	0.00	5.00	84	2.00	2.00	0.12	-0.80
Intellect	1.22	0.95	0.00	4.00	110	1.00	1.00	1.24	1.45
Zf	12.64	3.02	5.00	23.00	110	13.00	11.00	0.05	2.17
Zd	1.37	2.27	-4.50	5.00	110	1.50	-0.50	-0.35	-0.40
Blends	5.81	2.43	0.00	9.00	108	7.00	7.00	-0.90	-0.34
Col Shd Blend	0.16	[0.37]	0.00	1.00	18	0.00	0.00	1.84	1.42s
Afr	0.69	0.15	0.28	1.00	110	0.58	0.67	0.10	0.52
Popular	6.19	1.34	2.00	9.00	110	7.00	6.00	-0.59	0.79
XA%	0.90	0.07	0.59	1.00	110	0.91	0.91	-2.84	9.41
WDA%	0.92	0.06	0.67	1.00	110	0.95	0.95	-2.55	8.57

(continued)

Table A.11 Continued.

Variable	13 Year Olds (N = 110)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
X+%	0.74	0.11	0.29	1.00	110	0.77	0.77	-1.86	5.39
X-%	0.10	0.07	0.00	0.41	108	0.09	0.09	2.66	8.99
Xu%	0.16	0.07	0.00	0.33	106	0.15	0.14	-0.02	0.76
Isolate/R	0.16	0.06	0.00	0.33	108	0.16	0.18	0.58	1.30
H	3.09	1.72	1.00	8.00	110	3.00	5.00	0.41	-0.57
(H)	1.25	1.02	0.00	5.00	84	1.00	1.00	1.06	2.35
HD	0.68	0.83	0.00	3.00	55	0.50	0.00	1.23	1.11
(Hd)	0.56	0.53	0.00	2.00	60	1.00	1.00	0.11	-1.21
Hx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
All H Cont	5.59	2.46	2.00	11.00	110	5.00	5.00	0.12	-1.03
A	7.96	1.81	4.00	13.00	110	8.00	7.00	0.62	0.65
(A)	0.37	[0.49]	0.00	1.00	41	0.00	0.00	0.53	-1.75
Ad	2.00	[0.81]	0.00	4.00	106	2.00	2.00	0.41	1.71
(Ad)	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
An	0.84	[0.69]	0.00	2.00	74	1.00	1.00	0.21	-0.89
Art	0.86	0.48	0.00	2.00	88	1.00	1.00	-0.36	0.78
Ay	0.11	[0.31]	0.00	1.00	12	0.00	0.00	2.54	4.55
Bl	0.19	[0.40]	0.00	1.00	21	0.00	0.00	1.59	0.55
Bt	1.74	0.98	0.00	5.00	98	2.00	2.00	0.43	1.35
Cg	1.62	1.10	0.00	4.00	98	1.00	1.00	0.47	-0.93
Cl	0.06	[0.23]	0.00	1.00	6	0.00	0.00	3.97	14.08
Ex	0.09	[0.29]	0.00	1.00	10	0.00	0.00	2.88	6.44
Fi	0.76	[0.54]	0.00	2.00	78	1.00	1.00	-0.11	-0.23
Food	0.62	[0.52]	0.00	2.00	66	1.00	1.00	-0.10	-1.15
Ge	0.04	[0.19]	0.00	1.00	4	0.00	0.00	5.02	23.65
Hh	1.07	0.81	0.00	4.00	90	1.00	1.00	1.34	2.87
Ls	1.10	0.97	0.00	6.00	84	1.00	1.00	2.27	10.32
Na	0.22	[0.50]	0.00	2.00	20	0.00	0.00	2.25	4.39
Sc	1.97	[1.14]	0.00	5.00	96	2.00	3.00	-0.17	-0.48
Sx	0.07	[0.42]	0.00	3.00	4	0.00	0.00	6.42	42.22
Xy	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Idio	0.78	1.14	0.00	4.00	44	0.00	0.00	1.26	0.28
DV	1.01	[0.70]	0.00	3.00	86	1.00	1.00	0.31	0.06
INCOM	1.07	[0.79]	0.00	3.00	84	1.00	1.00	0.33	-0.33
DR	0.30	[0.66]	0.00	4.00	27	0.00	0.00	3.54	16.72
FABCOM	0.42	[0.71]	0.00	3.00	34	0.00	0.00	1.71	2.45
DV2	0.02	[0.13]	0.00	1.00	2	0.00	0.00	7.31	52.43
INC2	0.22	[0.60]	0.00	3.00	16	0.00	0.00	3.06	9.49
DR2	0.04	[0.19]	0.00	1.00	4	0.00	0.00	5.02	23.65
FAB2	0.07	[0.32]	0.00	2.00	6	0.00	0.00	4.81	23.91
ALOG	0.04	[0.19]	0.00	1.00	4	0.00	0.00	5.02	23.65
CONTAM	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	3.18	1.86	0.00	11.00	108	3.00	2.00	2.01	6.04
Lvl 2 Sp Sc	0.35	[0.77]	0.00	4.00	24	0.00	0.00	2.73	8.42
WSum6	7.54	6.99	0.00	40.00	108	6.00	3.00	2.88	9.56
AB	0.13	[0.34]	0.00	1.00	14	0.00	0.00	2.26	3.20
AG	1.18	0.91	0.00	4.00	85	1.00	1.00	0.66	0.48
COP	1.65	1.22	0.00	6.00	100	1.00	1.00	1.58	3.11
CP	0.02	[0.13]	0.00	1.00	2	0.00	0.00	7.31	52.43
GOODHR	5.24	1.89	1.00	8.00	110	6.00	6.00	-0.25	-1.04
POORHR	1.31	1.21	0.00	7.00	88	1.00	1.00	2.16	7.57
MOR	0.49	[0.74]	0.00	3.00	40	0.00	0.00	1.42	1.38
PER	1.05	0.89	0.00	5.00	90	1.00	1.00	2.30	7.82
PSV	0.06	[0.23]	0.00	1.00	6	0.00	0.00	3.97	14.08

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

Table A.11 Continued.

Variable	14 Year Olds (N = 105)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
R	21.72	3.36	14.00	33.00	105	20.00	20.00	1.11	3.43
W	8.92	2.19	4.00	14.00	105	9.00	9.00	-1.01	2.83
D	11.13	3.16	1.00	21.00	105	11.00	10.00	-0.23	2.82
Dd	1.67	[1.70]	0.00	6.00	98	2.00	1.00	2.67	7.31
S	1.32	[1.09]	0.00	7.00	101	2.00	2.00	1.89	5.56
DQ+	7.81	2.55	2.00	15.00	105	8.00	8.00	0.33	1.36
DQo	12.69	2.06	8.00	20.00	105	12.00	12.00	0.73	2.58
DQv	0.58	[1.01]	0.00	4.00	27	0.00	0.00	2.23	4.30
DQv/+	0.65	[0.58]	0.00	2.00	48	0.00	0.00	2.25	3.79
FQX+	0.14	0.50	0.00	2.00	11	0.00	0.00	3.16	9.97
FQXo	15.17	3.09	5.00	23.00	105	15.00	15.00	-0.64	1.93
FQXu	3.27	1.56	0.00	8.00	101	3.00	3.00	0.42	1.10
FQX-	1.84	1.25	0.00	5.00	103	2.00	2.00	2.10	4.46
FQXNone	0.02	[0.53]	0.00	1.00	4	0.00	0.00	4.69	22.65
MQ+	0.11	0.44	0.00	2.00	6	0.00	0.00	3.42	11.04
MQo	3.21	1.66	1.00	8.00	105	3.00	1.00	0.43	-0.26
MQu	0.51	0.67	0.00	3.00	46	0.00	0.00	1.34	2.18
MQ-	0.13	[0.50]	0.00	2.00	11	0.00	0.00	2.18	4.01
MQNone	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
S-	0.39	[0.82]	0.00	3.00	31	0.00	0.00	2.24	6.00
M	4.06	2.24	1.00	11.00	105	4.00	4.00	0.59	0.16
FM	4.35	1.96	0.00	8.00	103	4.00	6.00	-0.17	-0.92
m	1.27	0.96	0.00	5.00	93	1.00	1.00	1.81	4.08
FM+m	5.62	2.14	1.00	11.00	105	6.00	7.00	-0.21	-0.42
FC	2.93	1.76	0.00	9.00	91	3.00	3.00	0.45	1.59
CF	2.70	1.53	0.00	5.00	97	3.00	3.00	-0.08	-1.05
C	0.10	[0.27]	0.00	1.00	9	0.00	0.00	3.14	7.67
Cn	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
FC+CF+C+Cn	5.71	2.67	1.00	10.00	105	7.00	8.00	-0.69	-0.44
WSum C	4.29	1.98	0.50	7.50	105	5.00	6.50	-0.60	-0.58
Sum C'	1.11	[0.91]	0.00	3.00	82	1.00	1.00	0.44	-0.50
Sum T	0.99	[0.52]	0.00	3.00	85	1.00	1.00	0.66	4.71
Sum V	0.13	[0.50]	0.00	2.00	8	0.00	0.00	3.21	9.06
Sum Y	0.88	[0.84]	0.00	2.00	75	1.00	2.00	-0.14	-1.44
SumShd	3.10	1.47	0.00	6.00	99	4.00	4.00	-0.49	-0.19
Fr+rF	0.38	[0.43]	0.00	1.00	15	0.00	0.00	3.97	10.25
FD	1.24	[0.87]	0.00	3.00	71	1.00	2.00	-0.31	-1.30
F	6.96	2.56	3.00	13.00	105	6.00	5.00	0.87	-0.35
PAIR.	8.59	2.34	1.00	14.00	105	9.00	10.00	-1.12	2.38
3r(2)/R	0.47	0.10	0.05	0.56	105	0.45	0.50	-1.79	4.60
LAMBDA	0.67	0.62	0.20	4.33	105	0.38	0.33	4.34	22.96
EA	8.34	2.70	1.00	15.00	105	9.00	7.50	-0.55	0.60
es	8.92	3.06	1.00	13.00	105	9.00	9.00	-0.76	-0.15
D	-0.09	0.84	-2.00	3.00	105	0.00	0.00	0.78	3.19
AdjD	0.09	0.86	-2.00	3.00	105	0.00	0.00	0.74	1.95
a (active)	6.20	1.92	2.00	11.00	105	6.00	7.00	-0.32	0.06
p (passive)	3.49	2.07	0.00	8.00	99	3.00	3.00	0.52	-0.35
Ma	2.59	1.32	0.00	8.00	101	2.00	2.00	1.81	5.93
Mp	1.49	1.36	0.00	5.00	89	2.00	2.00	0.17	-0.74
Intellect	1.23	0.97	0.00	4.00	105	1.00	1.00	1.18	1.22
Zf	12.56	3.06	5.00	23.00	105	13.00	14.00	0.12	2.11
Zd	1.27	2.26	-4.50	5.00	105	1.50	-0.50	-0.30	-0.38
Blends	5.74	2.46	0.00	9.00	103	7.00	7.00	-0.84	-0.47
Col Shd Blend	0.17	[0.38]	0.00	1.00	18	0.00	0.00	1.77	1.15
Afr	0.69	0.16	0.31	0.89	105	0.68	0.67	0.03	0.47
Popular	6.02	1.17	3.00	9.00	105	7.00	6.00	-0.53	0.67
XA%	0.90	0.07	0.59	1.00	105	0.91	0.91	-2.76	8.82
WDA%	0.92	0.06	0.67	1.00	105	0.94	0.95	-2.48	8.09

(continued)

Table A.11 Continued.

Variable	14 Year Olds (N = 105)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
X+%	0.74	0.12	0.29	1.00	105	0.77	0.75	-1.80	5.01
X-%	0.10	0.07	0.00	0.41	103	0.09	0.05	2.59	8.43
Xu%	0.16	0.07	0.00	0.33	101	0.15	0.14	-0.03	0.61
Isolate/R	0.16	0.06	0.00	0.33	103	0.16	0.16	0.59	1.15
H	3.00	1.71	1.00	8.00	105	3.00	1.00	0.54	-0.35
(H)	1.23	1.03	0.00	5.00	79	1.00	1.00	1.13	2.44
HD	0.67	0.85	0.00	3.00	50	0.00	0.00	1.27	1.07
(Hd)	0.56	0.54	0.00	2.00	57	1.00	1.00	0.13	-1.19
Hx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
All H Cont	5.46	2.44	2.00	11.00	105	5.00	5.00	0.22	-0.91
A	7.97	1.85	4.00	13.00	105	8.00	7.00	0.60	0.49
(A)	0.39	[0.49]	0.00	1.00	41	0.00	0.00	0.45	-1.83
Ad	2.00	[0.83]	0.00	4.00	101	2.00	2.00	0.40	1.50
(Ad)	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
An	0.84	[0.71]	0.00	2.00	69	1.00	1.00	0.24	-0.97
Art	0.85	0.50	0.00	2.00	83	1.00	1.00	-0.31	0.62
Ay	0.11	[0.32]	0.00	1.00	12	0.00	0.00	2.46	4.13
Bl	0.20	[0.40]	0.00	1.00	21	0.00	0.00	1.52	0.32
Bt	1.73	1.00	0.00	5.00	93	2.00	2.00	0.44	1.22
Cg	1.55	1.08	0.00	4.00	93	1.00	1.00	0.60	-0.69
Cl	0.06	[0.23]	0.00	1.00	6	0.00	0.00	3.87	13.24
Ex	0.10	[0.30]	0.00	1.00	10	0.00	0.00	2.79	5.94
Fi	0.75	[0.55]	0.00	2.00	73	1.00	1.00	-0.05	-0.32
Food	0.60	[0.53]	0.00	2.00	61	1.00	1.00	-0.01	-1.16
Ge	0.04	[0.19]	0.00	1.00	4	0.00	0.00	4.89	22.40
Hh	1.08	0.83	0.00	4.00	85	1.00	1.00	1.30	2.59
Ls	1.06	0.97	0.00	6.00	79	1.00	1.00	2.46	11.28
Na	0.23	[0.51]	0.00	2.00	20	0.00	0.00	2.17	4.01
Sc	1.93	[1.15]	0.00	5.00	91	2.00	3.00	-0.10	-0.48
Sx	0.08	[0.43]	0.00	3.00	4	0.00	0.00	6.27	40.17
Xy	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
Idio	0.82	1.16	0.00	4.00	44	0.00	0.00	1.19	0.11
DV	0.98	[0.69]	0.00	3.00	81	1.00	1.00	0.37	0.22
INCOM	1.05	[0.79]	0.00	3.00	79	1.00	1.00	0.39	-0.24
DR	0.30	[0.66]	0.00	4.00	25	0.00	0.00	3.60	16.99
FABCOM	0.44	[0.72]	0.00	3.00	34	0.00	0.00	1.64	2.19
DV2	0.02	[0.14]	0.00	1.00	2	0.00	0.00	7.13	49.92
INC2	0.22	[0.60]	0.00	3.00	15	0.00	0.00	3.06	9.40
DR2	0.03	[0.17]	0.00	1.00	3	0.00	0.00	5.74	31.57
FAB2	0.08	[0.33]	0.00	2.00	6	0.00	0.00	4.69	22.65
ALOG	0.04	[0.19]	0.00	1.00	4	0.00	0.00	4.89	22.40
CONTAM	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	3.14	1.90	0.00	11.00	103	3.00	2.00	2.06	5.97
Lvl 2 Sp Sc	0.34	[0.78]	0.00	4.00	22	0.00	0.00	2.74	8.37
WSum6	7.52	7.14	0.00	40.00	103	6.00	3.00	2.84	9.12
AB	0.13	[0.34]	0.00	1.00	14	0.00	0.00	2.18	2.84
AG	1.20	0.92	0.00	4.00	81	1.00	1.00	0.63	0.36
COP	1.65	1.24	0.00	6.00	95	1.00	1.00	1.56	2.91
CP	0.02	[0.14]	0.00	1.00	2	0.00	0.00	7.13	49.92
GOODHR	5.14	1.87	1.00	8.00	105	6.00	6.00	-0.19	-1.03
POORHR	1.32	1.24	0.00	7.00	83	1.00	1.00	2.09	7.06
MOR	0.51	[0.75]	0.00	3.00	40	0.00	0.00	1.35	1.17
PER	1.06	0.91	0.00	5.00	85	1.00	1.00	2.24	7.32
PSV	0.06	[0.23]	0.00	1.00	6	0.00	0.00	3.87	13.24

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most para-

Table A.11 Continued.

Variable	15 Year Olds ($N = 110$)								
	Mean	<i>SD</i>	Min	Max	Freq	Median	Mode	SK	KU
R	21.94	4.21	14.00	32.00	110	21.00	20.00	0.94	1.14
W	8.87	2.20	3.00	20.00	110	9.00	9.00	1.57	9.58
D	11.42	3.66	0.00	20.00	109	12.00	12.00	-0.31	1.91
Dd	1.65	[1.31]	0.00	7.00	91	1.00	1.00	1.31	3.76
S	1.44	[1.31]	0.00	5.00	104	2.00	1.00	2.66	12.86
DQ+	7.88	2.02	2.00	13.00	110	8.00	8.00	-0.33	0.15
DQo	12.67	3.62	5.00	29.00	110	12.00	12.00	1.49	5.43
DQv	0.75	[1.29]	0.00	4.00	40	0.00	0.00	1.84	2.46
DQv/+	0.14	[0.42]	0.00	2.00	12	0.00	0.00	3.22	10.13
FQX+	0.36	0.70	0.00	3.00	27	0.00	0.00	1.81	2.20
FQXo	16.35	3.34	7.00	29.00	110	16.00	15.00	0.60	2.79
FQXu	3.08	1.57	0.00	11.00	108	3.00	3.00	1.37	5.75
FQX-	1.60	0.91	0.00	6.00	99	2.00	2.00	0.81	3.89
FQXNone	0.04	[0.25]	0.00	2.00	4	0.00	0.00	6.07	39.81
MQ+	0.25	0.57	0.00	3.00	22	0.00	0.00	2.46	6.34
MQo	3.54	2.01	0.00	8.00	108	3.00	1.00	0.20	-0.91
MQu	0.44	0.52	0.00	2.00	48	0.00	0.00	0.43	-1.36
MQ-	0.12	[0.32]	0.00	1.00	13	0.00	0.00	2.40	3.82
MQNone	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
S-	0.38	[0.57]	0.00	2.00	37	0.00	0.00	1.22	0.52
M	4.35	2.17	1.00	9.00	110	4.00	4.00	0.06	-0.97
FM	4.82	1.73	1.00	9.00	110	5.00	6.00	-0.20	-0.80
m	1.17	0.78	0.00	4.00	97	1.00	1.00	1.49	3.79
FM+m	5.99	1.78	2.00	10.00	110	6.00	7.00	-0.14	-0.67
FC	3.14	1.14	0.00	6.00	107	3.00	3.00	-0.56	0.76
CF	2.85	1.53	0.00	6.00	101	3.00	2.00	-0.11	-0.73
C	0.03	[0.16]	0.00	1.00	3	0.00	0.00	5.88	33.24
Cn	0.02	[0.13]	0.00	1.00	2	0.00	0.00	7.31	52.42
FC+CF+C+Cn	6.04	2.01	1.00	10.00	110	7.00	8.00	-0.62	-0.37
WSum C	4.47	1.68	0.50	8.00	110	4.50	3.50	-0.33	-0.64
Sum C'	1.63	[1.35]	0.00	10.00	94	1.00	1.00	2.49	12.61
Sum T	1.06	[0.51]	0.00	3.00	101	1.00	1.00	2.62	13.12
Sum V	0.18	[0.49]	0.00	2.00	12	0.00	0.00	2.75	6.73
Sum Y	1.30	[1.27]	0.00	10.00	83	1.00	2.00	3.35	20.69
SumShd	4.17	2.55	0.00	23.00	109	4.00	4.00	4.04	27.31
Fr+rF	0.50	[0.45]	0.00	2.00	26	0.00	0.00	6.67	53.57
FD	1.33	[0.97]	0.00	5.00	83	1.50	2.00	0.35	0.78
F	6.48	2.71	2.00	17.00	110	5.00	5.00	1.31	2.02
PAIR	9.10	2.00	1.00	14.00	110	10.00	10.00	-1.37	4.47
3r(2)/R	0.44	0.10	0.05	0.79	110	0.45	0.50	-0.58	4.63
LAMBDA	0.65	0.22	0.14	1.71	110	0.36	0.33	2.27	8.94
EA	8.82	2.34	2.00	13.50	110	9.50	9.50	-0.69	0.39
es	9.16	3.40	4.00	17.00	110	10.00	9.00	2.13	12.31
D	-0.45	1.39	-10.00	2.00	110	0.00	0.00	-3.73	20.85
AdjD	-0.25	1.07	-5.00	2.00	110	0.00	0.00	-1.71	5.14
a (active)	6.99	1.73	3.00	12.00	110	7.00	8.00	0.18	0.32
p (passive)	3.36	1.93	0.00	9.00	106	3.00	3.00	0.75	0.31
Ma	2.58	1.44	1.00	7.00	110	2.00	2.00	0.96	0.38
Mp	1.77	1.46	0.00	5.00	81	2.00	2.00	0.48	-0.51
Intellect	1.04	0.83	0.00	4.00	110	1.00	1.00	1.59	3.76
Zf	12.68	2.59	5.00	23.00	110	13.00	13.00	0.01	2.61
Zd	1.03	2.96	-6.50	9.00	110	0.50	-0.50	0.17	0.11
Blends	6.34	2.16	1.00	12.00	110	7.00	7.00	-0.63	0.03
Col Shd Blend	0.22	[0.51]	0.00	2.00	19	0.00	0.00	2.35	4.69
Afr	0.65	0.18	0.27	1.29	110	0.67	0.67	0.97	1.69
Popular	6.33	1.23	3.00	9.00	110	7.00	7.00	-0.59	0.22
XA%	0.92	0.05	0.57	1.00	110	0.91	0.95	-3.35	23.67
WDA%	0.94	0.05	0.54	1.00	110	0.95	0.95	-4.34	32.40

(continued)

Table A.11 Continued.

Variable	15 Year Olds (N = 110)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
X+%	0.78	0.07	0.50	1.00	110	0.77	0.75	-0.45	2.72
X-%	0.08	0.05	0.00	0.43	99	0.09	0.05	3.29	23.27
Xu%	0.14	0.06	0.00	0.37	108	0.15	0.14	0.45	1.97
Isolate/R	0.15	0.07	0.00	0.47	108	0.15	0.16	1.76	8.19
H	3.42	1.96	0.00	8.00	109	3.00	5.00	0.49	-0.51
(H)	1.05	0.90	0.00	4.00	75	1.00	1.00	0.52	-0.16
HD	0.57	0.82	0.00	4.00	48	0.00	0.00	1.96	5.02
(Hd)	0.54	0.50	0.00	1.00	59	1.00	1.00	-0.14	-2.01
Hx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
All H Cont	5.57	2.28	1.00	9.00	110	5.00	5.00	-0.14	-0.95
A	7.98	1.96	3.00	15.00	110	8.00	7.00	0.54	1.91
(A)	0.36	[0.55]	0.00	3.00	37	0.00	0.00	1.55	3.35
Ad	2.08	[1.20]	0.00	9.00	102	2.00	2.00	2.25	11.70
(Ad)	0.06	[0.30]	0.00	2.00	4	0.00	0.00	5.79	34.15
An	0.93	[0.79]	0.00	3.00	73	1.00	1.00	0.24	-1.02
Art	0.86	0.63	0.00	4.00	82	1.00	1.00	1.00	4.67
Ay	0.14	[0.35]	0.00	1.00	15	0.00	0.00	2.14	2.67
Bl	0.22	[0.42]	0.00	1.00	24	0.00	0.00	1.38	-0.09
Bt	1.68	0.82	0.00	4.00	102	2.00	2.00	-0.04	-0.06
Cg	1.47	1.11	0.00	4.00	93	1.00	1.00	0.58	-0.80
Cl	0.09	[0.35]	0.00	2.00	8	0.00	0.00	4.11	17.53
Ex	0.12	[0.32]	0.00	1.00	13	0.00	0.00	2.39	3.82
Fi	0.69	[0.52]	0.00	2.00	73	1.00	1.00	-0.22	-0.72
Food	0.60	[0.51]	0.00	2.00	65	1.00	1.00	-0.20	-1.47
Ge	0.01	[0.10]	0.00	1.00	1	0.00	0.00	10.48	110.00
Hh	0.89	0.60	0.00	4.00	88	1.00	1.00	1.36	7.28
Ls	1.12	0.71	0.00	2.00	88	1.00	1.00	-0.17	-1.00
Na	0.12	[0.35]	0.00	2.00	12	0.00	0.00	3.02	9.12
Sc	1.70	[1.34]	0.00	6.00	77	2.00	3.00	0.02	-0.83
Sx	0.11	[0.44]	0.00	3.00	8	0.00	0.00	4.64	23.43
Xy	0.04	[0.19]	0.00	1.00	4	0.00	0.00	5.02	23.65
Idio	1.09	1.47	0.00	7.00	52	0.00	0.00	1.48	2.28
DV	0.98	[0.70]	0.00	3.00	84	1.00	1.00	0.34	0.03
INCOM	0.88	[0.74]	0.00	4.00	76	1.00	1.00	0.74	1.58
DR	0.13	[0.34]	0.00	1.00	14	0.00	0.00	2.26	3.20
FABCOM	0.23	[0.46]	0.00	2.00	23	0.00	0.00	1.87	2.73
DV2	0.03	[0.16]	0.00	1.00	3	0.00	0.00	5.88	33.24
INC2	0.01	[0.10]	0.00	1.00	1	0.00	0.00	10.48	110.00
DR2	0.01	[0.10]	0.00	1.00	1	0.00	0.00	10.48	110.00
FAB2	0.04	[0.19]	0.00	1.00	4	0.00	0.00	5.02	23.65
ALOG	0.06	[0.27]	0.00	2.00	5	0.00	0.00	5.36	31.19
CONTAM	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	2.35	1.38	0.00	5.00	96	2.00	2.00	-0.19	-0.97
Lvl 2 Sp Sc	0.08	[0.28]	0.00	1.00	9	0.00	0.00	3.09	7.71
WSum6	4.71	3.33	0.00	15.00	96	4.00	3.00	0.60	0.27
AB	0.03	[0.16]	0.00	1.00	3	0.00	0.00	5.88	33.24
AG	1.15	0.91	0.00	4.00	82	1.00	1.00	0.53	-0.05
COP	1.54	0.97	0.00	5.00	98	1.00	1.00	0.74	0.98
CP	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
GOODHR	5.01	1.91	0.00	9.00	109	6.00	6.00	-0.38	-0.55
POORHR	1.57	1.22	0.00	6.00	75	1.00	1.00	2.00	4.33
MOR	0.54	[0.83]	0.00	4.00	41	0.00	0.00	1.73	3.06
PER	0.92	0.65	0.00	5.00	89	1.00	1.00	2.31	14.11
PSV	0.04	[0.19]	0.00	1.00	4	0.00	0.00	5.02	23.65

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

Table A.11 Continued.

Variable	16 Year Olds ($N = 140$)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
R	22.89	5.16	14.00	31.00	140	21.00	20.00	0.94	1.70
W	8.96	2.37	3.00	20.00	140	9.00	9.00	1.70	8.32
D	11.91	3.74	0.00	21.00	139	12.00	12.00	-0.23	1.41
Dd	2.02	[1.82]	0.00	7.00	121	2.00	1.00	3.49	15.11
S	1.24	[1.23]	0.00	5.00	132	2.00	2.00	2.70	14.04
DQ+	7.94	2.04	2.00	13.00	140	8.00	8.00	-0.28	-0.13
DQo	13.12	3.47	5.00	27.00	140	12.00	12.00	1.23	4.58
DQv	0.89	[1.35]	0.00	5.00	59	0.00	0.00	1.59	1.62
DQv/+	0.84	[0.53]	0.00	2.00	46	0.00	0.00	2.21	3.98
FQX+	0.54	0.83	0.00	3.00	48	0.00	0.00	1.26	0.31
FQXo	16.43	3.36	7.00	29.00	140	16.00	15.00	0.59	2.16
FQXu	3.19	1.56	0.00	11.00	138	3.00	3.00	1.18	4.32
FQX-	1.58	0.91	0.00	5.00	126	2.00	2.00	0.70	2.97
FQXNone	0.06	[0.26]	0.00	2.00	7	0.00	0.00	5.01	27.20
MQ+	0.35	0.64	0.00	3.00	38	0.00	0.00	1.96	3.75
MQo	3.50	2.01	0.00	8.00	138	3.00	1.00	0.29	-0.86
MQu	0.37	0.50	0.00	2.00	51	0.00	0.00	0.71	-1.07
MQ-	0.09	[0.29]	0.00	1.00	13	0.00	0.00	2.84	6.13
MQNone	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
S-	0.34	[0.55]	0.00	2.00	43	0.00	0.00	1.32	0.81
M	4.31	2.13	1.00	9.00	140	4.00	4.00	0.20	-0.88
FM	4.58	1.66	1.00	9.00	140	4.00	4.00	0.04	-0.73
m	1.14	0.80	0.00	4.00	117	1.00	1.00	1.10	2.43
FM+m	5.72	1.78	2.00	10.00	140	6.00	7.00	0.03	-0.73
FC	3.43	1.34	0.00	8.00	137	3.00	3.00	0.14	1.16
CF	2.78	1.45	0.00	6.00	130	3.00	3.00	-0.05	-0.59
C	0.04	[0.20]	0.00	1.00	6	0.00	0.00	4.56	19.10
Cn	0.01	[0.12]	0.00	1.00	2	0.00	0.00	8.27	67.44
FC+CF+C+Cn	6.26	2.08	1.00	11.00	140	7.00	8.00	-0.56	-0.16
WSum C	4.56	1.66	0.50	8.00	140	5.00	3.50	-0.42	-0.49
Sum C'	1.15	[1.27]	0.00	6.00	118	1.00	1.00	2.48	13.59
Sum T	1.02	[0.48]	0.00	3.00	128	1.00	1.00	2.44	13.39
Sum V	0.19	[0.51]	0.00	2.00	20	0.00	0.00	2.64	6.03
Sum Y	1.04	[1.21]	0.00	5.00	95	2.00	1.00	3.25	20.79
SumShd	3.44	2.35	0.00	23.00	139	4.00	4.00	4.25	31.18
Fr+rF	0.48	[0.41]	0.00	3.00	32	0.00	0.00	6.27	48.14
FD	1.31	[0.93]	0.00	5.00	108	1.00	2.00	0.33	0.77
F	6.85	2.69	2.00	17.00	140	6.00	5.00	0.96	0.93
PAIR	9.04	2.00	1.00	14.00	140	9.00	10.00	-0.90	3.36
3r(2)/R	0.43	0.09	0.05	0.79	140	0.45	0.50	-0.32	3.89
LAMBDA	0.65	0.21	0.24	1.71	140	0.68	0.63	1.85	7.03
EA	8.87	2.23	2.00	13.50	140	9.00	8.50	-0.59	0.63
es	9.21	3.29	4.00	17.00	140	10.00	8.00	2.09	12.09
D	-0.31	1.31	-10.00	2.00	140	0.00	0.00	-3.70	22.64
AdjD	-0.11	1.04	-5.00	2.00	140	0.00	0.00	-1.56	5.47
a (active)	6.82	1.71	3.00	12.00	140	7.00	6.00	0.25	0.13
p (passive)	3.22	1.89	0.00	9.00	133	3.00	2.00	0.70	0.33
Ma	2.62	1.42	1.00	7.00	140	2.00	2.00	0.88	0.20
Mp	1.69	1.38	0.00	5.00	106	2.00	2.00	0.55	-0.32
Intellect	1.14	0.93	0.00	5.00	140	1.00	1.00	1.38	2.72
Zf	12.61	2.64	5.00	23.00	140	13.00	13.00	0.37	3.18
Zd	1.12	2.96	-6.50	9.00	140	0.75	-0.50	0.09	0.15
Blends	6.11	2.13	1.00	12.00	140	7.00	7.00	-0.44	-0.26
Col Shd Blends	0.24	[0.50]	0.00	2.00	28	0.00	0.00	2.08	3.56
Afr	0.65	0.17	0.27	1.29	140	0.67	0.67	0.80	1.61
Popular	6.46	1.27	3.00	10.00	140	7.00	7.00	-0.35	0.39
XA%	0.93	0.05	0.57	1.00	140	0.92	0.95	-3.12	22.84
WDA%	0.94	0.05	0.54	1.00	140	0.95	0.95	-3.80	29.25

(continued)

Table A.11 Continued.

Variable	16 Year Olds (N = 140)								
	Mean	SD	Min	Max	Freq	Median	Mode	SK	KU
X+%	0.78	0.07	0.50	1.00	140	0.78	0.75	-0.41	2.27
X-%	0.07	0.05	0.00	0.43	126	0.07	0.05	3.07	22.85
Xu%	0.15	0.06	0.00	0.37	138	0.15	0.15	0.45	1.42
Isolate/R	0.16	0.07	0.00	0.47	138	0.16	0.16	1.30	4.09
H	3.39	1.94	0.00	8.00	139	3.00	3.00	0.62	-0.28
(H)	1.07	0.89	0.00	4.00	97	1.00	1.00	0.36	-0.43
HD	0.59	0.81	0.00	4.00	62	0.00	0.00	1.79	4.08
(Hd)	0.46	0.50	0.00	1.00	64	0.00	0.00	0.17	-2.00
Hx	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
All H Cont	5.51	2.12	1.00	9.00	140	5.00	5.00	-0.06	-0.76
A	8.04	1.97	3.00	15.00	140	8.00	7.00	0.46	1.18
(A)	0.32	[0.54]	0.00	3.00	41	0.00	0.00	1.72	3.69
Ad	2.11	[1.15]	0.00	9.00	131	2.00	2.00	1.97	10.34
(Ad)	0.07	[0.33]	0.00	2.00	7	0.00	0.00	4.93	24.56
An	0.81	[0.79]	0.00	3.00	82	1.00	0.00	0.44	-0.97
Art	0.83	0.68	0.00	4.00	97	1.00	1.00	0.78	2.33
Ay	0.19	[0.41]	0.00	2.00	25	0.00	0.00	1.95	2.75
Bl	0.21	[0.43]	0.00	2.00	29	0.00	0.00	1.68	1.61
Bt	1.87	1.03	0.00	6.00	130	2.00	2.00	0.62	1.27
Cg	1.39	1.06	0.00	4.00	116	1.00	1.00	0.64	-0.57
Cl	0.11	[0.36]	0.00	2.00	14	0.00	0.00	3.32	11.31
Ex	0.11	[0.32]	0.00	1.00	16	0.00	0.00	2.45	4.06
Fi	0.63	[0.57]	0.00	2.00	82	1.00	1.00	0.19	-0.76
Food	0.51	[0.52]	0.00	2.00	70	0.50	0.00	0.13	-1.62
Ge	0.01	[0.12]	0.00	1.00	2	0.00	0.00	8.27	67.44
Hh	0.91	0.67	0.00	4.00	108	1.00	1.00	1.14	3.97
Ls	1.07	0.74	0.00	3.00	108	1.00	1.00	0.00	-0.87
Na	0.17	[0.42]	0.00	2.00	22	0.00	0.00	2.35	5.05
Sc	1.51	[1.31]	0.00	6.00	93	2.00	0.00	0.23	-0.82
Sx	0.11	[0.41]	0.00	3.00	11	0.00	0.00	4.57	23.67
Xy	0.04	[0.19]	0.00	1.00	5	0.00	0.00	5.05	23.93
Idiographic	1.31	1.45	0.00	7.00	81	1.00	0.00	1.07	1.04
DV	0.99	[0.71]	0.00	3.00	107	1.00	1.00	0.38	0.11
INCOM	0.83	[0.75]	0.00	4.00	91	1.00	1.00	0.81	1.34
DR	0.14	[0.37]	0.00	2.00	19	0.00	0.00	2.48	5.51
FABCOM	0.21	[0.45]	0.00	2.00	28	0.00	0.00	1.89	2.75
DV2	0.02	[0.15]	0.00	1.00	3	0.00	0.00	6.68	43.26
INC2	0.01	[0.12]	0.00	1.00	2	0.00	0.00	8.27	67.44
DR2	0.01	[0.09]	0.00	1.00	1	0.00	0.00	11.83	140.00
FAB2	0.04	[0.19]	0.00	1.00	5	0.00	0.00	5.05	23.93
ALOG	0.05	[0.25]	0.00	2.00	6	0.00	0.00	5.49	32.88
CONTAM	0.00	0.00	0.00	0.00	0	0.00	0.00	—	—
Sum 6 Sp Sc	2.30	1.34	0.00	5.00	125	2.00	2.00	-0.03	-0.92
Lvl 2 Sp Sc	0.08	[0.27]	0.00	1.00	11	0.00	0.00	3.16	8.14
WSum6	4.57	3.23	0.00	15.00	125	4.00	3.00	0.67	0.32
AB	0.06	[0.25]	0.00	1.00	9	0.00	0.00	3.59	11.06
AG	1.20	0.99	0.00	5.00	106	1.00	1.00	1.02	1.98
COP	1.60	1.10	0.00	5.00	120	1.00	1.00	0.68	0.45
CP	0.00	[0.00]	0.00	0.00	0	0.00	0.00	—	—
GOODHR	5.29	1.80	0.00	9.00	139	6.00	6.00	-0.21	-0.49
POORHR	1.16	1.29	0.00	6.00	96	1.00	1.00	1.67	2.67
MOR	0.58	[0.81]	0.00	4.00	59	0.00	0.00	1.56	2.57
PER	0.96	0.72	0.00	5.00	110	1.00	1.00	1.59	7.12
PSV	0.04	[0.20]	0.00	1.00	6	0.00	0.00	4.56	19.10

Note: Standard deviations shown in brackets indicate that the value is probably unreliable and/or misleading and should not be used to estimate expected ranges. Ordinarily these variables should not be included in most parametric analyses.

Table A.12 Frequencies for 36 Variables for 1,390 Nonpatient Children and Adolescents by Age.

	Age 5 (N=90)		Age 6 (N=80)		Age 7 (N=120)		Age 8 (N=120)		Age 9 (N=140)		Age 10 (N=120)	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Styles												
Introversive	0	0	0	0	6	5	16	13	23	16	24	20
Pervasive Introversive	0	0	0	0	0	0	0	0	1	0	0	0
Ambient	24	27	20	25	42	35	36	30	48	40	38	32
Extratsensive	54	60	51	64	58	48	48	40	49	35	45	38
Pervasive Extratsensive	48	53	46	58	40	33	24	20	15	11	26	22
Avoidant	12	13	9	11	14	12	20	17	20	14	13	11
Ea-es Differences: D-Scores												
D Score > 0	0	0	0	0	0	0	6	5	7	5	2	2
D Score = 0	68	76	51	64	69	58	90	75	117	84	100	83
D Score < 0	22	24	29	36	51	43	24	20	16	11	18	15
D Score < -1	4	4	4	5	12	10	8	7	9	6	2	2
Adj D Score > 0	0	0	0	0	0	0	6	5	9	6	6	5
Adj D Score = 0	72	80	63	79	69	58	98	82	121	86	96	80
Adj D Score < 0	18	20	17	21	51	43	16	13	10	7	18	15
Adj D Score < -1	3	3	4	5	5	4	8	7	7	5	2	2
Zd > +3.0 (Overincorp)	3	3	0	0	0	0	8	7	28	20	30	25
Zd < -3.0 (Underincorp)	23	26	27	34	32	27	19	16	22	16	19	16
Form Quality Deviations												
XA% > .89	25	28	41	51	62	52	56	47	61	44	66	47
XA% < .70	14	16	15	19	12	10	16	13	18	13	9	7
WDA% < .85	14	16	8	10	18	15	22	18	24	17	16	13
WDA% < .75	4	4	3	4	0	0	0	0	3	2	1	0
X+% < .55	4	4	0	0	0	0	3	3	4	3	3	3
Xu% > .20	49	54	55	69	23	19	32	27	36	26	22	18
X-% > .20	3	3	2	3	6	5	4	4	4	3	9	8
X-% > .30	0	0	0	0	0	0	0	0	0	0	0	0
FC:CF+C Ratio												
FC > (CF+C) + 2	0	0	0	0	9	8	1	1	0	0	1	1
FC > (CF+C) + 1	0	0	0	0	12	10	9	8	10	7	14	12
(CF+C) > FC + 1	87	97	71	89	17	14	48	40	30	21	60	50
(CF+C) > FC + 2	43	48	49	61	11	9	32	27	19	14	21	18
Constellations & Indices												
HVI Positive	0	0	0	0	0	0	0	0	0	0	0	0
OBS Positive	0	0	0	0	0	0	0	0	0	0	0	0
PTI = 5	0	0	0	0	0	0	0	0	0	0	0	0
PTI = 4	0	0	0	0	0	0	0	0	0	0	0	0
PTI = 3	0	0	0	0	0	0	0	0	0	0	0	0
DEPI = 7	0	0	0	0	0	0	0	0	0	0	0	0
DEPI = 6	0	0	0	0	0	0	0	0	0	0	0	0
DEPI = 5	0	0	0	0	0	0	0	0	0	0	0	0
CDI = 5	1	1	2	2	3	3	3	3	0	0	0	0
CDI = 4	11	12	10	13	13	11	8	7	9	6	18	15

(continued)

Table A.12 Continued.

	Age 5 (N=90)		Age 6 (N=80)		Age 7 (N=120)		Age 8 (N=120)		Age 9 (N=140)		Age 10 (N=120)	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Miscellaneous Variables												
R < 17	17	19	15	19	14	12	40	33	21	15	13	11
R > 27	0	0	0	0	0	0	0	0	0	0	0	0
S > 2	21	23	4	5	37	31	9	8	12	9	14	12
Sum T = 0	33	37	11	14	10	8	8	7	17	12	14	12
Sum T > 1	0	0	0	0	2	2	8	7	12	9	8	7
3r+(2)/R < .33	0	0	6	8	0	0	8	7	7	5	4	3
3r+(2)/R > .44	86	96	62	78	82	68	82	68	99	71	110	92
PureC > 1	53	59	56	70	12	10	40	33	28	20	16	13
Afr < .40	0	0	12	15	0	0	1	1	8	6	2	2
Afr < .50	13	14	19	24	9	8	24	20	16	11	16	13
(FM+m) < Sum Shading	0	0	0	0	2	2	10	8	14	10	8	7
Populars < 4	6	7	8	10	3	3	4	3	0	0	4	3
COP = 0	13	14	13	16	12	10	6	5	4	3	6	5
COP > 2	6	6	5	6	16	13	30	25	37	26	21	18
AG = 0	8	9	40	50	0	0	24	20	12	9	3	3
AG > 2	4	4	4	5	3	3	13	11	19	14	18	15
MOR > 2	3	3	5	6	6	5	3	3	11	8	13	11
Level 2 Sp.Sc. > 0	32	36	16	20	19	16	13	11	14	10	10	8
GHR > PHR	79	88	69	77	93	78	101	84	98	70	94	78
Pure H < 2	4	4	24	30	63	52	32	27	31	22	36	30
Pure H = 0	1	1	0	0	0	0	4	3	2	1	4	3
p > a+1	7	8	5	6	16	13	10	8	19	14	12	10
Mp > Ma	9	10	9	11	11	9	14	12	17	12	14	12
Styles												
Introversive	27	20	24	20	30	27	28	27	37	34	46	33
Pervasive Introversive	0	0	8	6	6	5	6	6	7	6	11	8
Ambitient	37	27	47	39	35	32	32	30	27	25	28	20
Extratsensive	51	38	33	28	35	32	35	33	34	31	52	37
Pervasive Extratsensive	14	10	22	18	18	16	18	17	18	16	23	16
Avoidant	21	16	16	13	10	9	10	10	12	10	14	12
Ea-es Differences: D-Scores												
D Score > 0	0	0	4	3	14	13	10	10	9	8	14	10
D Score = 0	123	91	90	75	70	64	69	66	71	65	110	79
D Score < 0	12	9	26	22	26	24	26	25	30	27	16	11
D Score < -1	5	4	3	3	4	4	3	3	10	9	9	6
Adj D Score > 0	4	3	14	12	25	23	21	20	16	15	17	12
Adj D Score = 0	119	88	80	67	65	59	70	67	67	61	86	61
Adj D Score < 0	11	8	26	22	20	18	14	13	27	25	12	9
Adj D Score < -1	4	3	2	2	2	2	2	2	6	5	7	5
Zd > +3.0 (Overincorp)	36	27	34	28	30	27	21	20	25	23	30	21
Zd < -3.0	14	10	20	17	15	14	16	15	16	15	14	10
Form Quality Deviations												
XA% > .89	111	82	110	92	86	78	81	77	87	79	114	81
XA% < .70	0	0	4	3	4	4	4	4	2	2	3	2
WDA% < .85	6	4	4	3	8	7	8	8	2	2	2	1
WDA% < .75	0	0	4	3	4	4	4	4	1	1	1	1
X+ % < .55	12	9	6	5	8	7	8	8	2	2	3	2
Xu% > .20	26	19	16	13	16	15	17	15	9	8	16	11
X- % > .20	18	13	4	3	6	5	7	6	2	2	2	1
X- % > .30	0	0	2	2	2	2	2	2	1	1	1	1

Table A.12 Continued.

	Age 11 (N=135)		Age 12 (N=120)		Age 13 (N=110)		Age 14 (N=105)		Age 15 (N=110)		Age 16 (N=140)	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
FC:CF+C Ratio												
FC > (CF+C) + 2	3	2	8	7	6	5	4	4	10	9	18	13
FC > (CF+C) + 1	17	13	12	10	12	11	8	8	20	18	38	27
(CF+C) > FC+1	45	33	24	20	19	17	16	15	23	21	23	16
(CF+C) > FC+2	14	10	0	0	3	3	3	3	2	2	2	1
Constellations and Indices												
HVI Positive	5	4	4	3	3	3	6	6	0	0	1	1
OBS Positive	0	0	0	0	0	0	0	0	1	1	1	1
PTI = 5	0	0	0	0	0	0	0	0	0	0	0	0
PTI = 4	0	0	0	0	0	0	0	0	0	0	0	0
PTI = 3	0	0	2	2	2	2	2	2	1	1	1	1
DEPI = 7	0	0	0	0	0	0	0	0	0	0	0	0
DEPI = 6	0	0	0	0	0	0	0	0	0	0	0	0
DEPI = 5	0	0	1	1	1	1	0	0	0	0	0	0
CDI = 5	0	0	0	0	0	0	0	0	1	1	1	1
CDI = 4	12	9	29	24	22	20	13	12	16	15	15	11
Miscellaneous Variables												
R < 17	4	3	8	7	10	9	10	10	12	11	13	9
R > 27	0	0	0	0	4	4	5	5	8	7	11	8
S > 2	18	13	10	8	16	15	13	12	17	15	18	13
Sum T = 0	19	14	14	12	20	18	17	16	6	5	12	9
Sum T > 1	11	8	0	0	4	4	2	2	9	8	11	8
3r+(2)/R < .33	0	0	6	5	18	16	18	17	7	6	10	7
3r+(2)/R > .44	123	91	85	71	62	56	59	56	49	45	74	53
PureC > 1	0	0	0	0	0	0	0	0	0	0	0	0
Afr < .40	0	0	6	5	8	7	6	6	5	5	6	4
Afr < .50	13	10	45	38	33	30	24	23	19	17	21	15
(FM+m) < Sum Shading	10	7	12	10	11	10	9	9	17	15	20	14
Populars < 4	0	0	4	3	4	4	1	1	3	3	4	3
COP = 0	6	4	6	5	10	9	13	12	12	11	20	14
COP > 2	13	10	19	16	16	15	18	17	15	14	24	17
AG = 0	5	4	21	18	25	23	19	18	28	25	34	24
AG > 2	10	7	15	13	8	7	10	10	8	7	11	8
MOR > 2	6	4	6	5	2	2	5	5	4	4	5	4
Level 2 Sp.Sc. > 0	20	15	22	18	13	12	9	9	9	8	7	5
GHR > PHR	105	78	109	91	94	85	89	85	84	76	111	79
Pure H < 2	27	20	30	25	28	25	18	17	23	21	14	10
Pure H = 0	4	3	0	0	0	0	0	0	1	1	1	1
p > a+1	12	9	10	8	7	6	13	12	13	12	15	11
Mp > Ma	20	15	18	15	9	8	8	8	16	15	17	12

Author Index

- Abraham, P. P., 245, 256
 Abrahamsen, D., 248, 249, 258
 Abrams, E. W., 360, 362, 387, 394, 427, 441
 Abramson, L. Y., 255, 258, 311, 330
 Abramson, L. S., 164, 185
 Ainsworth, M. D., 17, 27, 246, 257, 274, 278, 314, 333
 Alexander, S. E., 515, 519
 Alinsky, D., 178, 188
 Allee, R., 427, 443
 Allen, R. M., 34, 39, 321, 330
 Allerhand, M. E., 250, 256
 Allison, J., 360, 362
 Alloy, L. B., 311, 330
 Altus, W. D., 249, 256, 427, 441
 Ames, L. B., 163, 185, 319, 324, 331, 360, 362, 387, 393, 394, 427, 428, 441, 510, 519
 Amick, J., 252, 258
 Anastasia, A., 28, 34, 39
 Applebaum, S. A., 330, 331
 Archer, R., 36, 40
 Archer, R. P., 312, 331
 Arluck, E. W., 320, 331
 Armbruster, G. L., 164, 165, 174, 177, 182, 185, 186, 276, 278, 315, 321, 325, 332, 359, 362, 393, 395, 438, 442, 480, 486
 Armitage, S. G., 360, 362, 387, 394
 Armstrong, J. G., 330, 334, 430, 441, 443, 482, 487
 Armsworth, M. W., 477, 486
 Arnold, J. M., 277, 279
 Aronow, E., 34, 39
 Atkinson, J. W., 248, 258
 Attneave, F., 167, 185
 Backlar, P., 34, 39
 Bailey, J. M., 35, 36, 37, 40
 Baity, M. R., 393, 398, 514, 519
 Baker, G., 246, 257, 430, 442
 Baker, L. M., 387, 394
 Baker, W., 477, 487, 517, 521
 Ball, J. D., 312, 331
 Bandura, A., 327, 331
 Bannatyne, L. A., 320, 331, 390, 394
 Bard, M., 276, 279
 Barrera, S., 320, 333
 Bartell, S. S., 389, 395
 Bash, K. W., 244, 256, 314, 331
 Baughman, E. E., 30, 31, 39, 48, 61, 65, 107, 118, 252, 257, 321, 331, 385, 393, 395
 Beck, A., 120, 130, 132, 133, 163, 185, 437, 441
 Beck, A. T., 33, 40, 310, 320, 331
 Beck, S. J., 16, 17, 21, 26, 68, 69, 75, 78, 80, 84, 89, 91, 116, 118, 120, 130, 131, 132, 133, 163, 164, 185, 244, 252, 255, 256, 275, 278, 319, 320, 324, 326, 330, 331, 334, 356, 357, 360, 361, 362, 387, 393, 395, 397, 430, 437, 441, 480, 485, 510, 517, 519
 Behn-Eschenberg, H., 12, 26
 Belmont, L., 360, 363, 387, 396
 Belter, R. W., 34, 41, 310, 333
 Bendick, M. R., 428, 441
 Berger, D., 276, 278
 Berger, D. G., 360, 362
 Beri, J., 429, 441
 Berkowitz, M., 387, 395
 Berry, D. T. R., 35, 36, 40, 41
 Berryman, E., 249, 256
 Binder, H., 12, 15, 26, 101, 104, 118, 275, 278
 Binet, A., 6, 11
 Blacker, E., 429, 441
 Blake, R., 358, 363
 Blatt, S. J., 310, 317, 331, 357, 360, 362
 Blias, M. A., 252, 256
 Blondheim, S. H., 509, 520
 Bloom, B. S., 46, 67
 Bochner, R., 483, 485
 Bohm, E., 19, 26
 Boll, T. J., 319, 332

- Bornstein, R. F., 35, 36, 40, 41, 510, 519
 Bourguignon, E. E., 393, 395
 Bouvier, C. R., 389, 395
 Bowers, K. S., 510, 519
 Bradway, K., 252, 256
 Braff, D., 143, 146, 511, 519, 520
 Brawer, F. B., 17, 27
 Breecher, S., 250, 256
 Brems, C., 477, 485
 Brennen, M., 325, 331
 Brick, H., 276, 278
 Bricklin, B., 430, 443, 510, 521
 Bridges, M. R., 320, 332, 390, 396, 475, 486
 Brown, B. S., 439, 444
 Brown, G. W., 310, 331
 Brown, M., 250, 256
 Brown, S. L., 315, 334, 431, 443
 Browne, C. G., 20, 27
 Brubaker, R., 120, 133, 386, 396
 Brunell-Neuleib, S., 35, 36, 40, 41
 Bryant, E. L., 183, 186, 246, 248, 250, 256, 358, 359,
 362, 437, 442, 476, 486, 510, 520
 Buhler, C., 252, 256, 276, 278, 320, 331
 Buker, S. L., 321, 334
 Buona, S., 477, 485
 Burns, B., 143, 146, 511, 519

 Cadenhead, K. S., 511, 519
 Caldwell, B. M., 387, 395
 Calvin, A. D., 276, 278
 Campbell, V. L., 28, 41
 Campo, V., 101, 118, 276, 278
 Cannavo, F., 249, 257, 325, 332
 Caputo-Sacco, L., 477, 485
 Caraway, E. W., 358, 362
 Carp, A. L., 49, 65
 Carlson, C. F., 312, 331
 Cass, W. A., 388, 395
 Casella, M. J., 251, 256
 Castles, J., 330, 331
 Caston, J., 428, 441
 Cattell, R. B., 162, 185
 Centeno, L., 514, 520
 Chadoff, P., 310, 331
 Chesrow, E. J., 387, 395
 Chevron, E. S., 310, 331
 Chu, A. Y., 251, 256, 317, 322, 331, 332
 Clark, R. W., 248, 258
 Cleveland, S. E., 439, 442, 483, 486
 Clore, J. L., 31, 41
 Coan, R., 250, 256
 Cocking, R. R., 428, 441
 Coffin, T. E., 48, 65, 164, 185

 Cohen, J. B., 164, 177, 183, 186, 277, 278, 386, 397
 Cohen, L., 322, 325, 331
 Coleman, J., 483, 487
 Coleman, M., 473, 486
 Colligan, S. C., 172, 186, 319, 332
 Collucci, G., 477, 485
 Collyer, Y. M., 277, 279
 Colson, D. B., 331
 Cooper, L., 482, 441
 Cooper, W. H., 182, 186, 248, 257, 276, 277, 278, 480,
 486
 Corrigan, H., 252, 256
 Cotte, S., 361, 363
 Counts, R. M., 327, 331
 Cox, F. N., 49, 65, 276, 278
 Cronbach, L. J., 30, 39, 68, 75
 Crumpton, E., 324, 331

 Dahlstrom, L. E., 174, 186
 Dahlstrom, W. G., 174, 186
 Dana, J. M., 428, 441
 Dana, R. H., 428, 441
 Daston, P. G., 360, 362
 Davidson, H., 121, 126, 130, 133, 386, 387, 395, 397
 Dawes, R. M., 34, 35, 36, 39
 Dearborn, G., 6, 11
 de de Santos, D. R., 101, 118
 de Ruiter, C., 322, 326, 331
 Devine, D., 161, 187, 484, 487
 Di-Ngovo, S. F., 477, 485
 Dinoff, M., 164, 186
 Dobson, K. S., 33, 40
 Draguns, I. G., 480, 485, 510, 517, 519
 Dubrovner, R. J., 164, 186, 321, 331
 Dudek, S. Z., 428, 441
 Duszynski, K. R., 439, 444
 Dyk, R. B., 429, 444

 Ebner, D. L., 325, 333
 Eichler, R. M., 276, 278
 Elisens, M. M., 322, 331
 Elizur, A., 483, 485
 Ellenberger, H. R., 6, 11, 104, 118
 Elstein, A. S., 277, 278
 Endicott, J., 391, 398
 Epstein, M., 253, 256, 389, 395, 482, 485
 Erdberg, P., 35, 41, 167, 1861, 196, 197, 214, 508, 516,
 521
 Erginel, A., 244, 256
 Eron, L. D., 32, 41, 68, 75
 Evans, M. D., 33, 39
 Evans, R. B., 430, 441
 Exner, D. E., 22, 26, 386, 395

- Exner, J. E., 19, 21, 22, 25, 26, 31, 34, 35, 38, 39, 47, 49, 51, 53, 55, 61, 66, 68, 75, 77, 80, 81, 84, 86, 91, 107, 112, 118, 134, 143, 146, 162, 163, 164, 165, 167, 168, 170, 171, 174, 175, 177, 178, 181, 182, 183, 184, 185, 186, 187, 188, 189, 196, 210, 214, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 275, 276, 277, 278, 279, 310, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 328, 330, 331, 332, 333, 334, 355, 356, 358, 359, 360, 361, 362, 363, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 427, 429, 430, 431, 432, 433, 436, 437, 438, 439, 440, 441, 442, 443, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 485, 486, 487, 488, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 523, 524, 583
- Farber, J. L., 518, 520
- Faterson, H. F., 429, 444
- Feirstein, A., 317, 331
- Feldman, M., 388, 396
- Finch, A. J., 310, 333
- Fink, A. D., 277, 279
- Finkelberg, S., 245, 256
- Finney, B. C., 325, 332, 334
- Fisher, D. F., 168, 187
- Fisher, R. L., 276, 278
- Fisher, S., 439, 442, 483, 486
- Fishman, R., 476, 486
- Fiske, D. W., 30, 31, 39, 46, 66, 252, 257
- Fister, W. P., 315, 334
- Fleischer, M. S., 439, 442
- Folkman, S., 255, 258
- Fonda, C., 357, 363, 429, 443
- Fonda, C. P., 327, 332
- Ford, M., 177, 187, 324, 332
- Forsyth, R. P., 324, 332
- Fosberg, I. A., 49, 66
- Foster, J. M., 49, 66
- Fowler, C. J., 252, 256, 392, 396, 474, 486, 523, 524, 584
- Frank, I. H., 360, 362
- Frank, L. K., 20, 26, 162, 187, 483, 486
- Frankle, A. H., 429, 442
- French, A. P., 54, 66
- French, J., 312, 331
- French, T. M., 255, 257
- Freud, S., 20, 26
- Fried, E., 387, 397
- Fried, R., 393, 396
- Friedman, H., 69, 75, 80, 84, 360, 361, 362, 387, 396
- Gacono, C. B., 252, 257, 259, 278, 279, 320, 331, 332, 390, 394, 475, 486, 514, 516, 520
- Gage, N. L., 46, 66
- Gaines, R. N., 54, 66
- Galina, H., 277, 279
- Gallagher-Thompson, D., 33, 40
- Ganellen, R. J., 35, 40
- Gantt, W. H., 255, 257
- Garb, H. N. 35, 36, 40, 41, 46, 66
- Gardner, R. W., 325, 332
- Garron, D. C., 387, 397
- Garven, S., 35, 41
- George, L. M., 49, 66
- Gibby, R. G., 48, 61, 66, 164, 187, 387, 396, 430, 442
- Giedt, F. H., 46, 66
- Gill, H. S., 325, 332
- Gill, M., 18, 27, 38, 41, 46, 66, 80, 84, 89, 119, 130, 133, 134, 146, 254, 258, 275, 279, 319, 334, 361, 363, 430, 443, 480, 487, 517, 521
- Gillespie, R., 245, 247, 257, 394, 396, 427, 442
- Glass, H., 427, 443
- Goetcheus, G., 164, 187
- Gold, J. R., 35, 36, 41
- Goldberger, L., 276, 278, 387, 396
- Goldfarb, W., 315, 333, 483, 486
- Goldfried, M. R., 276, 278, 483, 486
- Goldman, A. E., 387, 398
- Goldman, G. D., 428, 444
- Goldman, R., 320, 332, 510, 520
- Goldstein, D. B., 441, 442, 508, 514, 520
- Gollan, J. K., 33, 40
- Goodenough, D. R., 429, 444
- Goodman, N. L., 49, 66, 175, 187
- Goodstein, L. D., 276, 278
- Gordon, R. A., 312, 331
- Gortner, E. T., 33, 40
- Gough, H. G., 30, 40
- Grayson, H. M., 324, 333
- Greaves, S. T., 164, 187
- Greenberg, R. P., 510, 519
- Greenberg, T. D., 360, 362
- Greene, R. L., 320, 331, 390, 394
- Greenwald, D. F., 477, 486
- Greenway, A. P., 519, 520
- Grisso, J. T., 38, 40, 46, 66
- Gross, L., 164, 187
- Grosz, H. J., 276, 279
- Grove, W. M., 36, 40
- Guirdham, A., 429, 442
- Haan, N., 249, 257
- Hafner, A. I., 320, 333
- Haley, E. M., 480, 485, 510, 519
- Hall, W. C., 477, 486

- Haller, N., 49, 66, 183, 187
 Hallowell, A. L., 393, 396
 Hallmark, R., 28, 41
 Halpern, F., 161, 187, 324, 333, 430, 442, 483, 485, 510, 520
 Hammer, E. F., 436, 442
 Handler, L., 474, 486, 516, 520
 Hanley-Peterson, P., 33, 40
 Hanson, R. K., 36, 40
 Haroian, J., 35, 41, 196, 214
 Hark, L. I., 38, 39, 47, 66
 Harrington, R. L., 430, 442
 Harris, J. G., 387, 394
 Harris, T., 310, 331
 Harrower, M., 38, 40, 46, 66
 Harrower-Erikson, M. R., 163, 187
 Heaven, T. R., 475, 486
 Henri, V., 6, 11
 Henry, B. M., 320, 333
 Hens, S., 7, 11
 Herman, J., 315, 334, 428, 444
 Herron, E. W., 31, 40
 Hersen, M., 164, 187
 Hersh, C., 428, 442
 Hertz, M. R., 17, 26, 27, 68, 69, 75, 77, 84, 89, 119, 120, 130, 131, 133, 177, 187, 250, 257, 274, 278, 356, 357, 362, 363, 386, 393, 396
 Hertzman, M., 429, 442
 Hiller, J. B., 35, 36, 40, 41
 Hillman, L. B., 183, 186, 319, 332
 Hilsenroth, M. J., 36, 37, 41, 252, 256, 392, 393, 396, 398, 474, 486, 514, 516, 519, 520
 Hirschstein, R., 6, 483, 486
 Hochberg, J., 168, 187
 Holaday, M., 390, 396, 477, 486, 508, 520
 Hollon, S. D., 33, 40
 Holt, R. R., 17, 27, 30, 31, 40, 46, 66, 246, 257, 274, 278, 314, 333, 483, 486
 Holtzman, W. H., 31, 40, 68, 75, 276, 278
 Holzberg, J. D., 177, 178, 187, 360, 363, 387, 396
 Holzman, P. S., 329, 331
 Honigmann, J. J., 393, 396
 Hoover, T. O., 429, 444
 Horiuchi, H., 172, 187
 Hunsley, J., 35, 36, 37, 40
 Hutt, M., 164, 187
 Hynan, L. S., 325, 333

 Ihanus, J., 249, 257
 Ingram, R., 120, 133, 386, 396
 Iscoe, I., 276, 278
 Izner, S. M., 248, 259

 Jacks, I., 436, 442
 Jackson, C. W., 23, 27
 Jacobson, N. S., 33, 40
 Jansak, D. M., 312, 333, 511, 521
 Jensen, A. R., 31, 34, 40
 Jensen, D., 484, 487
 Johnson, J., 277, 279
 Johnson, M. E., 477, 485
 Jolles, I., 357, 363
 Jones, A. M., 430, 443
 Joseph, A., 393, 396
 Jost, H., 164, 186, 321, 331
 Jung, C. G., 20, 27
 Justice, J., 508, 521

 Kadinsky, D., 361, 363
 Kahn, M. W., 390, 396, 428, 444
 Kallstedt, F. E., 250, 257, 427, 442
 Karp, S. A., 429, 444
 Kates, S. L., 276, 279
 Katkin, E. S., 510, 520
 Keehn, J. D., 324, 333
 Keinonen, M., 249, 257
 Keller, J. W., 34, 41
 Kelley, D. M., 65, 66, 164, 187, 252, 257, 320, 333, 387, 397, 478, 487, 517, 520
 Kelly, E. L., 46, 66
 Kelsey, R. M., 514, 520
 Kemalof, S., 244, 257
 Kendell, R. E., 310, 333
 Kennard, M. A., 315, 334
 Kerner, J., 6, 11
 Kerr, M., 393, 396
 Khouri, S., 519, 520
 Kinder, B. N., 31, 40, 120, 133, 386, 396
 King, G. F., 430, 442
 King, S., 275, 279
 Kirkner, F., 246, 257, 430, 442
 Kirkpatrick, E. A., 6, 11
 Kisker, G. W., 387, 397
 Klatskin, E. H., 324, 333
 Klebanoff, S. A., 277, 278
 Klebanoff, S. G., 361, 363
 Klein, G. S., 428, 442
 Kline, J. R., 359, 362, 479, 486
 Klingensmith, S. W., 61, 66
 Klopfer, B., 16, 17, 21, 27, 65, 66, 68, 75, 89, 90, 101, 104, 114, 116, 119, 121, 126, 130, 131, 133, 163, 164, 187, 246, 250, 252, 254, 257, 274, 275, 278, 314, 319, 320, 324, 326, 333, 386, 397, 430, 442, 478, 487, 517, 520
 Klopfer, W. G., 17, 27, 246, 252, 257, 258, 274, 278, 314, 333, 387, 396, 428, 441

- Kluckhohn, C., 393, 397
 Knopf, I. J., 387, 397
 Knowles, E. S., 393, 398
 Korchin, S. J., 386, 397
 Korman, A. K., 30, 40
 Kostlan, A. A., 46, 66
 Kotik, D., 310, 333
 Kovacs, M., 33, 40
 Kropp, R., 357, 363
 Kruglov, L., 387, 395
 Kubovy, M., 168, 187
 Kuhn, B., 476, 486
 Kula, M. L., 312, 331
- Langmuir, C. R., 317, 333, 432, 442
 Larsen, R. M., 28, 40
 Latesta, P., 430, 443
 Lazarus, R. S., 255, 258
 Learned, J., 163, 185, 319, 331
 Leavitt, F., 387, 397
 Lebo, D., 276, 278
 LeFever, D., 252, 256, 276, 278, 320, 331
 Leighton, D., 393, 397
 Leiser, R., 248, 259
 Lepisto, B. L., 245, 256
 Lerner, B., 428, 442
 Leura, A. V., 49, 66, 174, 175, 186, 187, 188, 248, 251, 254, 257, 358, 359, 362, 363
 Levantrosser, C., 251, 257
 Levin, M. M., 63, 66, 427, 443
 Levine, J., 387, 395
 Levine, M., 429, 443
 Levitt, E., 121, 130, 132, 133, 163, 185, 276, 279, 320, 331, 437, 441
 Levy, E., 484, 487
 Lewis, M. G., 245, 256
 Lewis, R. J., 477, 482, 485, 487
 Liddell, H. S., 255, 258
 Light, B. H., 252, 258
 Lilienfeld, S. O., 35, 41
 Lindner, R. M., 483, 487
 Lindzey, G., 31, 40
 Linton, H. B., 325, 333
 Lion, E., 252, 256
 Lipgar, R. M., 389, 397
 Lipovsky, J. A., 310, 333
 London, H., 177, 187
 Lowell, E. L., 248, 258
 Loosli-Usteri, M., 57, 66
 Lord, E., 48, 66
 Lotsoff, E., 360, 363
 Louitt, C. M., 20, 27
 Loveland, N. T., 428, 443
- Loving, J. L., 252, 258
 Lubin, B., 21, 27, 28, 40
 Luborsky, L., 46, 66
- McArthur, C. C., 275, 279
 McCandless, B. B., 360, 363
 McClelland, D. C., 248, 258
 McCowan, W., 277, 279
 McCoy, R., 439, 442
 McDonald, C., 310, 331
 McDougal, A., 143, 146
 McFate, M. Q., 250, 258
 McMichael, A., 320, 334, 361, 363
 McReynolds, P. A., 388, 395
 MacKinnon, D. W., 46, 66
 Magnussen, M. G., 164, 187
 Mair, N. R. F., 255, 258
 Majumber, A. K., 275, 279
 Malone, J. A., 441, 443
 Mann, L., 325, 333
 Manne, S. H., 321, 330
 Margulies, H., 320, 324, 333
 Marsh, A., 251, 258
 Martin, L. S., 164, 174, 186, 187, 251, 253, 257, 317, 332, 389, 396, 440, 442, 477, 486, 523, 583
 Marwit, S. J., 49, 67
 Masling, J., 48, 66, 509, 510, 519, 520
 Maslow, A. H., 255, 258
 Mason, B., 178, 186, 245, 251, 253, 257, 315, 319, 328, 332, 333, 360, 363, 387, 389, 396, 397, 427, 440, 442, 443, 477, 486, 523, 583
 Matarazzo, J. D., 28, 40, 164, 187
 Matranga, J., 484, 487
 Mayman, M., 121, 133, 388, 397
 Meadow, A., 38, 40, 46, 66
 Meehl, P. E., 30, 31, 37, 40
 Meer, B., 161, 164, 187, 483, 487
 Meichenbaum, D. H., 359, 363
 Meili-Dworetzki, G., 80, 84, 361, 363
 Meisner, J. S., 482, 487
 Meloy, J. R., 252, 257, 259, 278, 279, 330, 332, 390, 396, 475, 486, 514, 516, 520
 Meltzer, H. Y., 252, 258
 Meltzoff, J., 427, 443, 428, 444
 Mensh, I. N., 164, 187, 327, 331
 Merolle, P., 276, 279
 Metalsky, G. L., 311, 330
 Metraux, R. W., 163, 185, 319, 331, 360, 362, 427, 441, 510, 519
 Meyer, B. T., 321, 333
 Meyer, G. J., 35, 36, 40, 511, 521
 Meyer, M. M., 17, 27
 Miale, F., 101, 119, 163, 187

- Miller, A. S., 182, 185, 248, 256, 276, 278, 510, 520
 Miller, D. R., 48, 66
 Miller, I. J., 34, 40
 Miller, N. E., 255, 258
 Miller, T. A., 325, 333
 Millon, T., 310, 333
 Milton, E. O., 164, 187
 Mindness, H., 314, 333
 Mirin, B., 429, 443, 437
 Mittman, B., 165, 174, 177, 186
 Molish, H. B., 120, 130, 132, 133, 163, 185, 275, 278, 315, 320, 327, 331, 333, 357, 363, 387, 397, 430, 437, 441, 443, 484, 487, 510, 520
 Montalto, F. D., 250, 258
 Monty, R. A., 168, 187
 Moreland, K., 34, 39
 Morgan, C., 20, 27
 Morgenthau, W., 5, 9, 11
 Mormorston, J., 430, 441
 Morris, H. M., 513, 520
 Morris, W. W., 510, 520
 Mukerji, K., 473, 487
 Murillo, L. G., 249, 257, 316, 320, 325, 332, 387, 396, 476, 486, 481
 Murray, H. A., 18, 20, 27, 31, 40, 161, 187
 Murray, V. F., 393, 396
 Murstein, B. I., 30, 31, 40

 Neel, F. A., 275, 279
 Neisser, U., 168, 187
 Nett, E. W., 393, 395
 Neuringer, C., 276, 279
 Nezworski, M. T., 34, 35, 36, 40, 41
 Nieberding, R., 28, 41

 O'Neill, R. M., 510, 520
 Oberholzer, E., 12, 27, 86, 119, 130, 133, 393, 397, 483, 487
 Ogdon, D. P., 427, 443
 Orange, A., 177, 187
 Orlansky, D., 429, 442
 Orlinski, D. E., 428, 443
 Ornduff, S. R., 514, 516, 520
 Orr, F. G., 250, 258

 Padawar, J. R., 392, 396, 474, 486, 516, 520
 Page, H. A., 428, 443
 Paine, C., 21, 27, 28, 40
 Palmer, J. O., 428, 443
 Pantle, M. L., 325, 333
 Papania, N., 320, 334, 361, 363
 Parker, K. C. H., 36, 40
 Parrill, T., 248, 257

 Parsons, C. J., 6, 11
 Pascal, G., 161, 187, 484, 487
 Paulsen, A., 320, 333, 387, 397, 427, 443
 Pearl, D., 360, 362
 Pellicciotta, A., 477, 485
 Perlman, J. A., 321, 333
 Perry, W., 143, 146, 511, 519, 520, 521
 Peterson, L. C., 49, 66
 Phares, E. J., 49, 66
 Phillips, L., 161, 187, 430, 443, 480, 483, 485, 487, 510, 519
 Piaget, J., 80, 84, 361, 363
 Pierce, G. E., 251, 258
 Pinto, A. F., 389, 397
 Piotrowski, C., 34, 41
 Piotrowski, Z. A., 18, 27, 38, 41, 46, 66, 68, 75, 89, 90, 91, 101, 119, 121, 130, 133, 163, 187, 244, 246, 248, 249, 254, 258, 274, 275, 279, 324, 326, 334, 386, 387, 397, 429, 430, 431, 437, 443, 510, 512, 517, 521
 Pires, A. A., 508, 521
 Pomerantz, J. R., 168, 187
 Potanin, N., 250, 258
 Pottharst, K., 164, 187
 Prados, M., 387, 397
 Prandoni, J., 484, 487
 Pyle, W. H., 6, 11

 Quinlan, D. M., 310, 331

 Rabie, L., 509, 520
 Rabin, A. I., 164, 187, 320, 324, 334, 361, 363, 484, 486
 Rabinovitch, M. S., 315, 334
 Rabinovitch, S., 252, 258
 Rafferty, J. E., 29, 41
 Rapaport, D., 18, 27, 38, 41, 46, 61, 67, 68, 69, 75, 80, 84, 89, 119, 121, 130, 133, 134, 146, 254, 258, 275, 279, 319, 320, 323, 327, 334, 361, 363, 386, 388, 397, 430, 443, 480, 487, 517, 521
 Ray, A. B., 510, 521
 Raychaudhuri, M., 46, 473, 487
 Reading, E., 120, 133, 386, 396
 Rees, W. L., 430, 443
 Reisman, J. M., 61, 67
 Renner, K. E., 31, 41
 Reznikoff, M., 34, 39
 Richard, S., 325, 331
 Richardson, H., 510, 521
 Richter, R. H., 428, 443
 Rickers-Ovsiankina, M., 323, 334, 387, 397
 Ridgeway, E. M., 248, 258, 277, 278, 279
 Robins, E., 391, 398
 Robinson, K. J., 510, 519

- Rorschach, H., 3, 6, 11, 12, 27, 80, 84, 86, 90, 114, 119,
130, 133, 314, 319, 323, 334, 360, 361, 363, 385,
393, 397, 427, 428, 430, 431, 436, 443, 483, 487
- Ros Plana, M., 482, 487
- Rose, R. B., 473, 486
- Rose, R. J., 31, 41
- Rosen, E., 327, 334, 483, 487
- Rosenthal, M., 316, 334
- Rosenthal, R., 35, 36, 40, 41
- Ross, D. C., 439, 444
- Rotter, J. B., 29, 41, 320, 333
- Roy, A. B., 275, 279
- Ruesch, H., 161, 187, 484, 487
- Rush, J., 33, 40
- Russell, W. F., 252, 258
- Rybakov, T., 6, 11
- Sakheim, G. A., 439, 443
- Salmon, P., 277, 279
- Sanderson, M. H., 164, 187
- Sanglade, A. A., 245, 252, 255, 257, 313, 314, 316, 324,
332, 474, 482, 486
- Sapenfield, B., 321, 334,
- Sarason, S. B., 49, 65, 276, 278
- Sarbin, T. R., 46, 67
- Saretsky, T., 390, 397
- Sargent, H., 31, 41
- Sawyer, J., 30, 41
- Schachtel, E. G., 48, 67, 323, 334
- Schachter, W., 361, 363
- Schafer, R., 18, 19, 27, 38, 41, 46, 48, 66, 68, 75, 80, 84,
89, 119, 130, 133, 134, 146, 254, 258, 275, 279,
319, 334, 361, 363, 388, 397, 430, 443, 480, 484,
487, 509, 517, 521
- Schlesinger, H. G., 428, 442
- Schmidt, H., 357, 363, 429, 443
- Schon, M., 276, 279
- Schreiber, H., 439, 444
- Schreiber, M., 244, 249, 258, 275, 279
- Schulman, I., 427, 443
- Schultz, L., 245, 256
- Schumacher, J., 248, 257, 476, 486
- Schumer, F., 32, 41, 68, 75
- Schuyler, W., 134, 146
- Schwartz, F., 276, 279
- Sechrest, L., 484, 488
- Seitz, C. P., 429, 442
- Seligman, M. E. P., 255, 258, 310, 334
- Selye, H., 255, 258
- Semmel, A., 255, 258
- Sender, S., 16, 27, 90, 119
- Senders, J. W., 168, 187
- Sendin, C., 393, 397
- Shaffer, T. W., 35, 41, 167, 186, 196, 197, 214, 516, 521
- Shalit, B., 182, 188, 275, 279
- Shapiro, D., 323, 334
- Shatin, L., 480, 487
- Shavzin, A. R., 49, 65
- Sherman, M. H., 320, 334, 387, 398, 510, 521
- Silberg, J. L., 330, 334, 430, 441, 443, 482, 487
- Silva, D., 171, 188, 321, 334
- Silverman, L. H.,
- Singer, J. L., 161, 187, 315, 334, 428, 431, 443, 444,
483, 487
- Singer, M. T., 428, 443
- Sloan, W., 387, 398
- Sloane, K., 512, 520
- Smith, A. M., 477, 487
- Smith, J., 483, 487
- Smith, J. G., 161, 187, 430, 443, 483, 487
- Smith, S. R., 393, 398, 525, 584
- Solanto, M. V., 389, 395
- Sommer, D. T., 249, 258, 325, 334, 427, 444
- Sommer, R., 249, 258, 325, 334, 427, 444
- Spiegelman, M., 254, 257
- Spitzer, R. L., 391, 398
- Spivack, G., 429, 443
- Spohn, H., 315, 334, 428, 444
- St-Laurent, C. M., 312, 331
- Stanley, F. B., 359, 362
- Steele, N. M., 428, 444
- Stein, M. I., 46, 67, 171, 188
- Steiner, M. E., 250, 258
- Steisel, I. M., 325, 334
- Stejkal, W. J., 34, 35, 36, 40, 41
- Stern, G. G., 46, 67
- Sterne, S. B., 248, 259
- Sternklar, S., 481, 486
- Stewart, L. M., 49, 66
- Stiff, M., 321, 330
- Strischer, B., 319, 332
- Storment, C. T., 325, 334
- Stotsky, B. A., 61, 66, 325, 334, 430, 442, 444, 510, 521
- Strauss, M. E., 49, 67
- Stricker, G., 34, 35, 36, 41, 61, 67, 276, 278, 483, 486
- Sundberg, N. D., 20, 27
- Suttell, B., 161, 187, 484, 487
- Swank, P. R., 477, 486
- Swartz, J. D., 31, 40
- Swift, J. W., 320, 334
- Symonds, P. M., 31, 41
- Tamarin, S., 430, 443
- Tanaka, F., 427, 444
- Taulbee, E. S., 387, 398
- Thomas, C. B., 439, 444

- Thomas, E. A., 175, 177, 178, 186, 188, 245, 251, 257, 277, 278, 315, 317, 318, 319, 322, 332, 389, 396, 431, 442, 477, 483, 486, 487, 517, 518, 520, 521
- Thomas, H. F., 430, 444
- Thomas, R. W., 430, 442
- Thompson, G. M., 249, 258
- Thompson, L., 33, 40
- Thorpe, J. S., 31, 40
- Toal, R., 276, 278
- Toman, K. M., 516, 520
- Townsend, J. K., 325, 334
- Tsugawa, R., 393, 398
- Van de Castle, R. L., 38, 41, 46, 67
- Van-Patten, K., 441, 444
- Vanhamaki, S., 249, 257
- Varvel, W., 357, 363
- Vernon, P. E., 46, 67, 177, 188
- Viglione, D. J., 35, 36, 37, 41, 143, 146, 177, 186, 245, 247, 251, 257, 258, 277, 279, 315, 321, 332, 393, 394, 396, 427, 442, 511, 519, 520, 521
- Vincent, K. R., 477, 486
- Vinson, D. B., 510, 521
- von Baeyer, C., 255, 258
- Von Lackum, W. J., 164, 186, 321, 331
- Waehler, C. A., 389, 397
- Wagner, E. E., 429, 444
- Walker, E. J., 182, 186, 248, 257, 275, 276, 278
- Walker, E. L., 48, 66, 480, 486
- Walker, R. G., 483, 487
- Walker, R. N., 163, 185, 319, 331, 360, 362, 427, 441, 510, 519
- Wallach, J. D., 484, 487
- Wallen, R., 324, 334
- Waller, P. F., 250, 259, 276, 279
- Wallis, R. R., 21, 27, 28, 40
- Walters, R. H., 510, 521
- Warshaw, L., 248, 259
- Watkins, C. E., 28, 41
- Watson, A., 474, 487
- Watson, M., 484, 487
- Weber, A., 254, 259
- Weber, C. A., 252, 259, 278, 279
- Weigel, R. B., 325, 334
- Weiner, I. B., 31, 36, 41, 51, 66, 134, 146, 178, 183, 186, 245, 252, 255, 257, 259, 276, 278, 311, 313, 315, 316, 319, 324, 330, 332, 334, 361, 362, 387, 388, 389, 394, 396, 398, 427, 430, 439, 442, 444, 474, 477, 482, 483, 486, 488, 517, 520
- Weiss, A. A., 480, 488
- Weiss, L. J., 473, 486
- Welsh, G. S., 174, 186
- Werner, H., 80, 84, 361, 363
- West, S. G., 35, 41
- Wetherhorn, M., 437, 444
- Wheeler, W. M., 483, 488
- Whipple, G. M., 6, 11
- White, D. O., 514, 521
- White, M. A., 439, 444
- Whittenberg, T., 508, 520
- Wickes, T. A., 164, 188
- Wiener-Levy, D., 246, 259, 431, 444
- Wiggins, J. S., 31, 41
- Williams, M. H., 49, 67
- Wilson, G., 358, 363
- Winnik, H. Z., 480, 488
- Winter, L. B., 473, 488
- Winter, W. D., 428, 443
- Wisham, W., 246, 257, 430, 442
- Wishner, J., 357, 360, 363, 387, 398
- Witkin, H. A., 429, 431, 444
- Wittenborn, J. R., 360, 363
- Wohl, J., 23, 27
- Wood, J. M., 34, 35, 36, 40, 41
- Wundt, W., 29, 33, 41
- Wylie, J. R., 171, 186, 248, 253, 257, 330, 332, 389, 396, 437, 438, 440, 442, 444, 476, 479, 486
- Young, G. R., 429, 444
- Young, M. H., 508, 521
- Zalis, T., 248, 257
- Zamansky, H. J., 387, 398
- Zax, M., 61, 67
- Zelin, M., 484, 488
- Zolliker, A., 480, 488
- Zubin, J., 32, 41
- Zuckerman, M., 325, 334
- Zukowsky, E., 390, 398
- Zulliger, I., 27
- Zuroff, D., 310, 331

Subject Index

- Abstract content (*AB*), 141–142
- Achromatic color responses, 101–103
 - achromatic color-form response (*CF*), 103
 - form-achromatic color response (*FC*), 104
 - pure achromatic response (*C*), 103
- Achromatic color variable (*SumC*), 254–255
- Active passive movement (a, p), 91–96
- Active-passive ratios (a:p, $M^a:M^p$), 153, 182, 406–407, 436–439, 492–493, 508–510
 - cognitive flexibility, 438–439
 - snow white syndrome, 439
- Adjusted *D* score (*Adj D*), 152, 233–234, 236–237, 255–256, 265–269
- Adjusted Experienced Stimulation (*Adj es*), 152, 233–234, 241, 246–247, 263–264
- Administration procedures, 47–65
 - brief records, 53–54
 - children and, 50, 60
 - difficult subjects, 63
 - inquiry, 58–65, 70
 - instructions, 51
 - introducing the test, 49–51
 - lengthy records, 55–56
 - location sheet, 51, 60, 64–65
 - questions, 52, 58–63
 - prompting, 52–53, 59–63
 - recording responses, 51, 56–58, 64
 - rejections, 54–55
 - response phase, 51–52
 - seating, 47–49
 - subject preparation, 49–51
- Affect, 153, 280–330
 - blends and, 303–308
 - capacity for control, 285–290
 - interpretive routine, 283–308
 - modulation in expression, 302–303, 326–327
 - negativism, 302–303, 326–327
 - research and concepts, 310
 - summarizing findings, 308–314
 - variables related to, 280
 - white space responses, 302–303, 326–327
- Affective ratio (*Afr*), 153, 157, 294–296, 320–322
- Age adjustments for children, 157
- Aggressive movement response (*AG*), 142
 - interpersonal perception, 501–503, 512–514
- ALOG*, 139–140
- Ambitent, 197, 204–206
- An+Xy*, 453–454, 480–481
- Anatomy contents (*An*), 127, 453–454, 480–481
- Animal movement response (*FM*), 90, 247–249, 461
- Approach summary, 150
- Aspirational ratio (*W:M*), 154, 346–374
- Avoidant styles, 207–209, 238–241

- Blend responses, 114–116, 117, 271, 327–329, 303–305
 - color-shading, 271–273, 306–307, 329–330
 - related to situational stress, 305–306
 - shading, 307–308, 329–330
- Blot difficulty, 164
- Body concern, 453–454, 480–481
- Brief records, 53–55

- Case illustrations:
 - Case 1: capacity for control, 234–243
 - Case 2: substance abuse, 235–243
 - Case 3: custody dispute, 261–274
 - Case 4: job reinstatement, 262–274
 - Case 5: recent widower, 262–274
 - Case 6: tension and anxiety, 281–308
 - Case 7: depression, 282–309
 - Case 8: depression, 282–310
 - Case 9: issue of reality testing, 336–354, 367–385, 401–425
 - Case 10: interpersonal problems, 337–354, 367–385, 401–426
 - Case 11: alcohol abuse, 338–354, 367–385, 401–427

- Case illustrations (*Continued*)
 Case 12: bipolar disorder, 446–472, 490–506
 Case 13: panic disorder, 447–472, 490–507
 Case 14: stress problem, 526–540
 Case 15: anxiety attacks, 540–556
 Case 16: issue of psychosis, 556–569
 Case 17: failure in school, 569–583
 Chromatic color responses (*FC, CF, C, Cn*), 95, 97–102, 323–326
 color-form response (*CF*), 97–99
 color naming (*Cn*), 101
 color use, 100–101
 FC:CF + C ratio, 153, 298–301
 form-color response (*FC*), 99
 pure color response (*C*), 95, 97, 301–302
 step-down principle, 100
 Coding. *See* Scoring
 Cognitive mediation, 364–394
 form quality table, 364–366
 interpretive routine, 367–385
 prerequisites, 368
 research and concepts, 385–393
 response process and, 364, 368
 summarizing findings, 385
 variables related to, 366–368
 Cognitive triad:
 information processing, 335–361
 cognitive mediation, 364–394
 ideation, 399–441
 integrating findings, 424–427
 Color projection (*CP*), 144–145, 297–298, 326
 Color shading blends, 271–273, 306–307, 329–330
 Color shading determinants, 104–111
 Common Details (*D*), 77–78
 Complexity ratio (*Blends:R*), 153
 Constellations worksheet, 155–157
 Constriction ratio (*SumC':WSumC*), 153, 293–294, 326
 Contamination (*CONTAM*), 138–139
 Contents, 69, 125–128, 150
 coding multiple contents, 126
 embellishment, 459–460
 self-image, 141–143
 specific categories, 127
 symbols and criteria, 127–128
 unusual contents, 128
 Controls and stress tolerance, 231–256
 concept of, 231–232
 capacity for, 232–233
 variables related to, 233–234
 interpretive routine, 236–243
 research and postulates, 244–256
 summarizing findings, 243–244
 Conventional form use (*X+%*), 154, 382–385
 Cooperative movement response (*COP*), 142, 501–503, 514–516
 Coping deficit index (*CDI*), 155–157, 284–285
 affect and, 310–314
 controls and, 233–234, 236–237
 interpersonal variables, 491–492, 507–508
 Coping styles, 285–290
 Critical distal features, 167, 169–171
 D Score (*D*), 152, 233–234, 255–256, 265–271
 differences, 263–266
 Dependency, 493–494, 509–510
 Depression, 183, 476, 439–440
 Depression index (*DEPI*), 155–157
 affect and, 284–285, 310–314
 Descriptive statistics:
 ambitents, 204–205
 extratensives, 201–202
 high Lambdas, 207–208
 introversives, 198–99
 nonpatients, 192–193
 Detail responses:
 common details (*D*), 77–78
 white space details (*S*), 79, 302–303, 326–327
 unusual details, (*Dd*), 78–79, 361, 372–374
 Determinants, 60, 69, 70, 85–118, 150
 achromatic color (*C', CF, FC'*), 101–104
 coding, 85–117
 criteria, 87–88
 chromatic color (*C, CF, FC, Cn*), 95, 97–102
 diffuse shading (*Y, YF, FY*), 110–112
 form (*F*), 86–89
 form dimension (*FD*), 111–112
 movement (*FM, M, m*), 89–96
 pair (*2*), 112–113, 115
 reflection (*Fr, rF*), 112–115
 shading-dimensionality (*V, VF, FV*), 107–110
 texture (*T, TF, FT*), 105–107
 Developmental Quality (*DQ*), 70, 79–83, 150, 361
 and cognitive operations, 349–350
 distribution, 349–352
 form demand (*o, +*), 82
 sequencing, 352–354
 synthesis responses (*+, v/+,*), 81–82
 Deviant response (*DR*), 136–138
 inappropriate phrases, 136–137
 circumstantial responses, 137–138
 Deviant verbalizations (*DV*), 135–136
 Diffuse shading response, 110–112
 form-shading response (*FY*), 111
 pure shading response (*Y*), 110
 shading-form response (*YF*), 111
 Distorted form (*X-%*), 154, 372–374

- EA:es relationship, 152
- EB Pervasive (*EBPer*), 151–152, 290–291, 405–406, 431–436
- Economy Index (*W:D:Dd*), 154, 341–343
- Ego impairment index (*EII*), 511
- Egocentricity Index ($3r+(2)/R$), 155, 450–451
- age adjustments, 157
- related research, 475–478
- Erlebnistypus style (*EB*), 151, 181, 238–241, 285–290, 303–305, 314–318, 339, 402–405, 430–431
- ambitent, 197, 286, 316
- extratensive, 197, 201–203, 285–286, 431–436
- introversive, 197, 285, 431–436
- Examiner influence, 48–49, 164
- Experience Actual (*EA*), 151, 233–234, 237–238, 244–246, 263–264
- Experience base (*eb*), 152, 241–243, 246–247
- ideation and, 403–431
- left-side value, 409–412
- right-side value, 291–293
- Experienced stimulation (*es*), 152, 233–234, 263–264
- Extratensive, 197, 201–203, 285–286, 431–436
- Eye scanning, 168–169
- FM* variable, 90, 247–249, 461
- Fabulized Combination (*FABCOM*), 138
- Food responses (*Fd*), 493–494, 509–510
- Form appropriate-common areas (*WDA%*), 154, 368–371, 390–393
- Form appropriate extended (*XA+%*), 154, 368–371, 390–393
- Form-color ratio (*FC:CF+C*), 153, 158, 181, 298–301
- Form Dimension response (*FD*), 111–112, 452–453, 478–480
- Form Quality, 69, 70, 80, 120–125, 150, 386–389
- criterion, 364–365
- extrapolation, 123–124
- intercoder agreement, 125
- minus (-), 124, 377–379, 460
- multiple object responses, 124
- no form (*FQxnone*), 371–372
- ordinary (*o*), 123
- plus (+), 123, 381–382
- proportions, 389–390
- symbols and criteria, 122
- table of, 585–637
- unusual (*u*), 123
- WDA%*, 154, 368–371, 390–393
- XA%*, 154, 368–371, 390–393
- X+%*, 154, 382–385
- X-%*, 154, 372–374
- Xu %*, 154, 382–385
- Form response (*F*), 86–89
- Form shading response (*FY*), 111
- Frequencies, 69–70, 176
- ambitents, 206
- children and adolescents, 663–665
- D response, 77–78
- extratensives, 203
- high Lambda, 209
- introversives, 200
- nonpatients, 196
- FQx+*, 381–382
- FQx-*, 372–374
- FQxS-*, 372–374
- H+(H)+Hd+(Hd)*, 155, 496–499
- H: (H)+Hd + (Hd)* ratio, 155, 455–457, 482–483
- History of the test, 5–11
- Homogeneity issues, 374–377
- Human content (*H, Hd, (H), (Hd), Hx*), 127, 155, 455–459, 461, 482–483, 496–499, 510
- Human movement response (*M*), 89–90, 461
- Human representational responses (*GHR/PHR*), 143–144, 499–501, 511–512
- Hypervigilance index (*HVI*), 155–157, 339, 355–356, 407–409, 448–449, 492
- Ideation, 153, 399–441
- defensiveness, 439
- EB* and, 430–431
- EBPer*, 431–436
- fantasy abuse, 439
- flexibility, 406–407
- intellectualization, 414, 440
- interpretive routine, 401–422
- M response and, 427–430
- pessimism, 407–409
- research and concepts, 427–441
- summarizing findings, 421–424
- variables related to, 399–400
- Inanimate movement (*m*), 266
- blends, 271
- research and postulates, 274–278
- Inappropriate combinations:
- contamination (*CONTAM*), 138–139
- fabulized combination (*FABCOM*), 138
- incongruous combination (*INCOM*), 138
- Inappropriate logic (*ALOG*), 139–140
- Information processing, 335–361
- Dd* response, 361
- interpretive routine, 339–354
- location sequences, 343–346
- overincorporation, 348
- prerequisites, 339–340
- quality and efficiency, 349–354

- Information processing (*Continued*)
 research and concepts, 355–361
 summarizing findings, 354
 underincorporation, 348
 variables related to, 336
W response, 360–361
Z scores and, 356–360
- Inquiry, 58–64
 comments by subject, 64
 examiner and, 63
 key words, 61–62
 location sheet, 60, 64–65
 procedure, 59–60
 questions, 60–63
 resistance in, 63–64
 testing limits, 65
- Instructions, 59–60
- Integrating findings, 522–583
- Intellectualization Index (*2AB+(Art+Ay)*), 153, 296–297, 414, 440
- Interpersonal interest, 155, 496–499
- Interpersonally passive style, 437–438
- Interpersonal perceptions, 489–519
 interpretive routine, 490–506
 research and concepts, 507–519
 summarizing findings, 506–507
 variables related to, 489–490
- Interpretation, 217–230
 case illustrations (*see specific cases*)
 barely yield phenomenon, 222–223
 by clusters, 223–229
 cluster search order, 225, 227–229
 key variables, 228–229
 tertiary variables, 229
 deviation principle, 219–220
 guidelines, 218–219
 hypotheses, 224–227
 integrity of data, 220–223
 integration of findings, 229–230, 522–523
 prerequisites, 217–218
- Interpretive routine:
 affect, 280–330
 cognitive mediation, 364–394
 controls and stress tolerance, 231–256
 ideation, 399–441
 information processing, 335–361
 interpersonal perception, 489–519
 self perception, 445–485
 situationally related stress, 260–278
- Interscorer agreement, 74, 77, 81, 91, 117–118
- Introversive, 197–200
- Isolation Index (*Isolate/R*), 126, 155, 504–505, 517–519
- Lambda (*L*), 151, 238–241, 303–305, 339, 368, 402–405
 high style and, 207–209, 238–241, 318–320
 as related to response styles, 285–290
- Lengthy records, 55–56
- Location sequence, 343–346
- Location sheet, 60, 64–65
- Location coding (*W, D, Dd, S*), 69–70, 76–79, 83, 150
 developmental quality, 150
 multiple (*D*) areas, 79
 numbering for detail areas, 77–79
 structural summary, 150
- Logical Analysis Device (LAD), 432–436
- Ma:Mp* ratio, 412–414, 438–439
- Minus responses, 124, 377–379, 460
 distortion levels, 377–379
- Morbid content (*MOR*), 142–143, 407–409, 439–440
 influence on thinking, 407–409, 439–440
 self-image, 454, 460–461, 481–482
- Movement responses, 89–96, 427–430
 active-passive coding, 91–96
 animal (*FM*), 90, 247–249, 461
 form quality of, 421
 human (*M*), 89–90, 461
 inanimate (*m*), 90, 266, 274–278, 461
 quality of responses, 421–424
 self-image, 461
 types of, 89–90
- Normative data, 189–214
 adult nonpatient sample, 196–209, 211–214
 characteristics of nonpatient sample, 190–196
 children and adolescents, 638–663
 demography, 190
 design for collecting data, 190, 210, 214
 descriptive statistics, 191–193
 integrity of sample, 196–197, 210
 standard deviations, 191, 194
- Obsessive style index (*OBS*), 155–157, 339, 355, 368, 407–409, 448–449
- Organizational activity (*Z score*), 70, 131–133, 150, 356–360
 overincorporation, 348
 underincorporation, 347
 values, 132
 weighted *ZSum*, 148
Zd, 154, 347–348, 356–360
Zf, 150, 340, 356–360
- Pair responses (2), 112–113, 115
M and *FM* and, 505–506

- Perceptual-Thinking Index (*PTI*), 155–157, 390–393, 524–525
- Perseveration response (*PSV*), 140–141, 349
 within card, 141
 content, 141
 mechanical, 141
- Personal response (*PER*), 144, 503–504, 516–517
- Popular responses (*P*), 69–70, 129–131, 379–381, 393–394
 cultural differences, 393
 intercoder agreement, 130–131
- Processing efficiency (*Zd*), 154, 347–348, 356–360
- Projection, 183–185, 459–472
 concept of, 19–21, 28–29
 projective hypothesis, 20
 techniques, 19–21
- Psychological complexity, 306
- Pure *C* response, 95, 97, 301–302
- Pure *H* response, 496–499
- Raw Sum6, 150, 414–417, 440–441
- Reflection responses (*rF*, *Fr*), 113–115
 personality style and, 449–450
 related research, 472–475
- Reinforcement, 164–165
- Reliability, 35–36, 177–182
- Resources, 232–233
- Response phase, 51–53
- Response process, 161–185
 classification, 169–173
 decision choices, 162–164
 discarding, 173–185
 input process, 167–169
 phases, 167, 184–185
 projection and, 183–185
 range of responses, 164
 selecting process:
 psychological states and, 182–183
 rank ordering, 173–176
 styles and traits, 176–182
 standardization study, 165–167
- Rorschach test:
 criticism of, 30–32, 34–37
 concept of method, 161–162
 controversy, 16–17, 28–30, 32–34
 development of, 12–19, 22–26
 figures, 8–10
 intersystem differences, 21–22
 origins of, 5–11
 prerequisites, 3–4
 and projection, 19–21
 systems, 12–26
 and test battery, 38–39, 46
 use of, 37–38, 45
 utility of, 4–5
 validity, 35–36, 53, 55
- Schizophrenia, 7, 9, 10, 430
- Schizophrenia Index (*SCZI*), 391–393, 525
- Scoring, 68–74
 interscorer agreement, 74, 77, 81, 91, 117–118
 as Rorschach language, 68–74
 vs. coding, 69–72
 structural summary sequence, 72–74
- Seating, 47–49
- Self image, 141–143, 445–446, 454
 embellished responses, 459–461
 morbid content, 142–143, 481–482, 454, 460–461
 movement answer contents, 461
- Self perception, 445–485
 analysis of verbiage, 483–485
 anatomy and x-ray, 453–454, 480–481
 egocentricity index, 450–451, 475–478
 form dimension, 452–453, 478–480
 human content, 455–459, 461, 482–483
 interpretive routine, 448–472
 research and concepts, 472–475
 reflection responses, 449–450, 472–475
 summarizing findings, 472
 variables related to, 446
- Sequence of scores, 73, 147–148
- Shading blends, 307–308, 329–330
- Shading form response (*YF*), 110–111
- Shading responses, 104–111
 diffuse (*Y*), 110–112, 274–278
 texture (*T*), 105–107
 vista (*V*), 107–110
- Situationally related stress, 182–183, 260–278
 blends, 305–306
 data related to, 260–261
 interpretive routine, 263–273
 research and postulates, 274–278
 summarizing findings, 273–274
- Space response (*S*), 79, 302–303, 326–327
- Special scores, 70, 134–146
 abstractions (*AB*), 141–142
 aggressive movement (*AG*), 142, 501–503, 512–514
 color projection (*CP*), 144–145, 297–298, 326
 contamination (*CONTAM*), 138–139
 cooperative movement (*COP*), 142, 501–503, 514–516
 deviant responses (*DR*), 136–138
 deviant verbalizations (*DV*), 135–136
 evaluation of, 418–420
 fabulized combination (*FABCOM*), 138

Special scores (*Continued*)

- frequencies, 150–151
- human representation responses (*GHR/PHR*), 143–144, 499–501, 511–512
- inappropriate logic (*ALOG*), 139–140
- incongruous combination (*INCOM*), 138
- intercoder agreement, 145–146
- level 1 responses, 135
- level 2 responses, 135
- morbid content (*MOR*), 142–143, 407–409, 439–440
- multiple special scores, 145
- perseveration (*PSV*), 140–141, 349
- personalized answers (*PER*), 144, 503–504, 516–517
- unusual verbalizations, 134–135
- Stimulus demand, 233, 263
- Stress tolerance, 231–256
- Structural summary, 69, 74, 147–157
 - affect section, 153
 - approach summary, 150
 - contents, 150
 - core section, 151–152
 - determinants, 150
 - form quality, 150
 - frequency tallies, 147, 150–151
 - ratios, percentages and derivations, 151–155
 - ideation section, 153
 - interpersonal section, 155
 - location features, 150
 - lower section, 155–155
 - mediation section, 153–154
 - processing section, 154
 - self-perception section, 155
 - sequence of scores, 147–148
 - special indices, 155–157
 - special scores, 150–151
 - upper section, 147–151
- Suicide constellation (*S-CON*), 155–157, 480, 523–524
- SumC'*, 254–255
- SumV*, 252–254, 266–269, 452–453
- SumT*, 250–252, 266–269, 494–496
- SumY*, 266
- SumC'*:*WsumC* ratio, 293–294, 326
- Sum6*, 414–417, 440–441
- Test procedures, 50–51, 59
- Texture response, 105–110
 - form-texture response (*FT*), 107
 - pure (*T*) response, 106
 - texture-form response (*TF*), 106–107
- Texture variable (*SumT*), 250–252, 266–269, 494–496
- Unusual details (*Dd*), 78–79, 361, 372–374
- Unusual form use (*Xu%*), 154, 382–385
- Unusual verbalizations, 134–135
- Verbal material, analysis of, 483–485
- Vista response:
 - form-vista response (*FV*), 108–110
 - pure vista response (*V*), 108–109
 - vista-form response (*VF*), 108–109
- Vista variable (*SumV*), 252–254, 266–269, 452–453
- Visual scanning, 168–169
- W:D:Dd*, 154, 341–343
- WDA%*, 154, 368–371, 390–393
- W:M*, 154, 346–374
- Weighted Sum (*WSum6*), 151, 157, 414–417, 440–441
- White space response (*S*), 79, 302–303, 326–327
- Whole response (*W*), 76–77, 360–361
- Working tables, 585–637
- Weighted sum color (*WsumC*), 151–153, 323–326
- X+%*, 154, 382–385
- X-%*, 154, 372–374
- XA%*, 154, 368–371, 390–393
- X-ray contents (*Xy*), 128, 453–454, 480–481
- Xu %*, 154, 382–385
- Y* variable:
 - blends, 271
 - research and postulates, 274–278
- Zd*, 154, 347–348, 356–360
- Z* frequency (*Zf*), 150, 340, 356–360
- Z* scores, 70, 131–133, 150, 356–360
 - criteria, 131