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Concept of the Object on the Rorschach Scale

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Relational models of personality development and psychotherapy—that is, theories emphasizing the centrality of relationships, both fantasied and real, with other human beings—are now commonplace in psychoanalysis (e.g., Aron, 1996; Atwood & Stolorow, 1984; Benjamin, 1995; Bromberg, 1998; Mitchell, 1988; Mitchell & Aron, 1999; Ogden, 1997; Orange, Atwood, & Stolorow, 1999; Skolnick & Warshaw, 1992). Such models are widely seen as deriving from a complex mix of British object relations theory, American interpersonal theory, and Kohutian self psychology (see Greenberg & Mitchell, 1983). Indeed, a chief argument of Greenberg and Mitchell's now-classic summary of object relations theories in psychoanalysis is precisely that there is a bifurcation between the drive model posited by classical psychoanalysis and ego psychology on the one hand and the relational models variously proposed by the British theorists, the interpersonal school, and the Kohutians on the other.[1]

[1] A parallel evolution has taken place outside psychoanalysis as well. For example, various cognitive- and schema-based models of personality have begun to integrate more explicitly an interpersonal component (Safran & Segal, 1990).

Unfortunately, this version of psychoanalytic history omits the contributions of psychoanalytic scholars who were influenced by the work of David Rapaport and his colleagues (Rapaport, 1951, 1967; Rapaport, Gill, & Schafer, 1945–1946), and yet these theorists (e.g., Gill & Holzman, 1976; Holt, 1989; Klein, 1976; Schafer, 1976), by rigorously challenging the Freudian metapsychology they learned from Rapaport, were just as essential as were figures like Fairbairn (1952), Sullivan (1953), Winnicott (1958, 1965), and Kohut (1971, 1977, 1984) to the transformation of psychoanalysis from a one-person psychology focused on drive, energy, and structure to a two-person psychology in which the vicissitudes of human relationships are primary. Furthermore, another crucial aspect of the work of many of these post-Rapaportian theorists was their reliance on empirical research as an impetus to their theoretical revisions. Thus, Greenberg and Mitchell's (1983) account of post-Freudian developments in drive and energy theory contains chapter-length discussions of the work of Heinz Hartmann, Edith Jacobson, Otto Kernberg, and Margaret Mahler, all theorists whose ideas in some significant way descend from classic psychoanalytic drive theory, but has scarcely a word about either Rapaport's attempt to systematize the Freudian metapsychology—to wed drive theory and cognitive psychology, motives and thought—or his students' eventual rejection of this effort in favor of what Gill (1983) termed the *person point of view* in psychoanalysis. In their discussion, which Greenberg and Mitchell regarded as a dichotomy between drive/structure and relational/structure theories, they also are explicitly silent on the role of empirical research in sorting out the differences between drive and relationship views and potentially integrating them. Meanwhile, traditional psychoanalytic theorists (e.g., Arlow & Brenner, 1964), in their classic attempt at systematizing Freud's structural and drive theories, did not mention at all Rapaport's efforts at constructing a more rigorous account of the metapsychology.

The purpose of this chapter is to describe the concept of the object on the Rorschach (COR) scale developed by Blatt, Brenneis, Schimek, and Glick (1976) to assess human representation on the Rorschach. Blatt et al.'s development of this scale, like the contributions of other Rapaport-influenced theorists of the time (e.g., Gill & Holzman, 1976; Klein, 1976; Schafer, 1976), is best understood as part of the general shift in psychoanalysis of the 1970s from a psychology dominated by metapschological abstractions to one that focused on the lived experience, once again both real and fantasied, of human relationships or, to use the psychoanalytic term, *object relations*. Readers of this chapter will therefore have a much better grasp of the COR scale if they understand its Rapaportian lineage. Specifically, insofar as it focuses on the developmental construction of Rorschach percepts of human figures instead of

on classical metapsychological concepts like drive-defense expression, the COR scale reflects, as did the work of figures like Gill, Klein, Holt, and Schafer, a break with the Rapaportian past from which it descends. Yet at the same time, it continues this heritage in at least four ways.

First, the COR scale developed out of the Rapaport approach (e.g., Allison, Blatt, & Zimet, 1968; Rapaport et al., 1945–1946; Rapaport, Gill, & Schafer, 1968) to the Rorschach and to psychological testing more generally. Rapaport used psychoanalytic theory to understand not only the ego functions and cognitive capacities but also the experiential world of the testing subject. To understand the testing subject, Rapaport moved from analysis of ordinary verbalizations uttered in the testing context to a hierarchical integration based on a highly sophisticated understanding of the cognitive operations underlying the subject's test responses. Because Rapaport articulated his approach to testing well before the emergence of post-Freudian object relations theories, the COR scale may be seen as an expansion of his approach to consider more recent theoretical contributions not available in the early 1940s. Second, contrary to Greenberg and Mitchell's (1983) argument that drive-based developmental psychologies (e.g., those of Freud,1965; Jacobson, 1964; Mahler, 1968; and Mahler, Pine, & Bergman, 1975) cannot be combined with developmental psychologies derived from object relations theories, Blatt et al. (1976) integrated ego-psychological and object relations concepts in constructing their scale. The development of this scale, as well as the theoretical work by Blatt and colleagues from the 1970s and 1980s (e.g., Behrends & Blatt, 1985; Blatt, 1974; Blatt & Behrends, 1987; Blatt & Shichman, 1983), was quite clearly a part of the growing movement at that time toward a more experiential and relational psychoanalysis. Third, the COR scale relies equally heavily on the cognitive developmental theories of Piaget (1937/1954) and Werner (1957; Werner & Kaplan, 1963) and psychoanalytic object relations theories for its conceptual underpinnings. That is, this measure sees object representation as growing and changing in accordance with the trajectory of cognitive development. Werner's concepts of differentiation, articulation, and integration are central to its logic. Fourth, therefore, like many theorists whose views descended from the work of Rapaport, Blatt et al. were concerned with developing a measure that was not only theoretically and clinically sophisticated but also empirically sound. Thus, in constructing the COR scale, Blatt et al. were entirely consistent with Rapaport's project of integrating psychoanalytic and cognitive theory. In essence, the COR Scale, unlike Exner's (2002) Comprehensive System, derives from a sophisticated theoretical understanding of the link between human relationships and the representation of those relationships on the Rorschach (see Auerbach, 1999). Indeed, this measure prefigures the

movement among post-Rapaportian Rorschach theorists (e.g., Blatt, 1990, 1999a, 1999b; Leichtman, 1996; Lerner, 1998) toward understanding the Rorschach as a representational, rather than perceptual, test.

In this chapter, therefore, we present the COR scale as reflecting a post-Rapaportian theoretical approach to the Rorschach and, more generally, an approach to object relations. First, we discuss the development of the scale. Second, we describe the scoring and interpretation of this measure. Third, we review empirical data pertaining to the scale's validity. Fourth, we evaluate the strengths, weaknesses, and limitations of the COR scale. Finally, we consider directions for further research using this measure.

DEVELOPMENT OF THE COR SCALE

Using a theoretical conceptualization derived from developmental psychology (Werner, 1957; Werner & Kaplan, 1963), Blatt et al. (1976) developed an extensive procedure for evaluating properties of human responses on the Rorschach. They identified three developmentally derived, primary dimensions of responses: differentiation, articulation, and integration. *Differentiation* was defined as the nature of the response with human content, from unrealistic human details through realistic whole humans; *articulation* was the degree to which perceptual and functional characteristics of the response were elaborated; and *integration* was the ways in which the concept of the human object was integrated into a context of action and interaction with other objects.

Specifically, the system calls for scoring human or humanoid responses according to developmental principles of differentiation (i.e., types of human figures perceived: quasi-human part properties, human part properties, quasi-human full figures, and full human figures), articulation (i.e., number and type of perceptual and functional features attributed to figures), degree of internality in the motivation of action attributed to the figures (i.e., unmotivated, reactive, and intentional action), degree of integration of the object and its action (i.e., fused, incongruent, nonspecific, and congruent action), content of the action (malevolent, benevolent), and the nature of any interaction (i.e., active-passive, active-reactive, active-active interactions) between human or humanoid figures. In each of these six categories, responses are scored along a developmental continuum. This developmental analysis is made separately for those human or humanoid responses that are accurately perceived (*F+*) and for those that are inaccurately perceived (*F–*).

Differential weighting for scores within each of the six categories assessing the concept of the object reflects a developmental progression, with higher scores indicating higher developmental levels. Score values are as follows. For differentiation: For a quasi-human detail, *Hd* = 1; for a human detail, *Hd* = 2; for a full quasi-human figure, *H* = 3; and for a full human figure, *H* = 4. For articulation, perceptual attributes = 1, and functional attributes = 2. For motivation, unmotivated = 1, reactive = 2, and intentional = 3. For integration of object and action, fused = 1, incongruent = 2, nonspecific = 3, and congruent = 4. For content of action, malevolent = 1, and benevolent = 2. For nature of interaction, active-passive = 1, active-reactive = 2, and active-active = 3. A detailed presentation of this scoring system is provided in the next section. Table 4.1 summarizes the COR scale.

This developmental analysis is made for those responses with any human features that are accurately perceived (*F+*) or inaccurately perceived (*F–*). Scores in the six categories are converted to standard scores,[2] and a residualized weighted sum and an average developmental score (mean) for each of the six categories is obtained for *F+* and *F–* responses separately. The composite weighted sum (developmental index) and the developmental average (mean) of the differentiation, articulation, and integration of accurately perceived human forms (*OR+*) assess the capacity for investing in appropriate interpersonal relationships; the composite weighted sum (developmental index) and the developmental average (mean) of differentiated, articulated, and integrated inaccurately perceived human forms (*OR–*) assess the degree of investment in inappropriate, unrealistic, possibly autistic fantasies, rather than realistic relationships.

CURRENT CONTROVERSY REGARDING THE RORSCHACH

Much of the current criticism of the Rorschach focuses on the validity of Exner's Comprehensive System and the use of the Rorschach for making clinical diagnostic distinctions (Dawes, 1994; Garb, 1998; Garb, Wood, Lilienfeld, & Nezworski, 2002; Grove & Barden, 1999; Hunsley & Bailey, 1999; Wood & Lilienfeld, 1999). In addition to concerns about reliability, Wood, Lilienfeld, Garb, and Nezworski (2000) suggested that six methodological issues may be especially widespread and problematic for Rorschach researchers: (a) comparing diagnostic groups to normative data (rather than a comparison group), (b) basing criterion diagnoses on procedures other than clinical or structured interviews, (c) failing to blind diagnosticians thoroughly to both direct and indirect influence of Rorschach scores, (d) failing to blind Rorschach administrators and scorers to study hypotheses, (e) performing large numbers of statistical tests without adequate adjustment of alpha, and (f) using parametric rather than nonparametric tests for skewed data and small

[2]Standard scores are a way of placing a series of raw scores into a common context by converting them to *z* scores with a mean of 0 and a standard deviation of 1.

TABLE 4.1
Summary of the Concept of the Object Scale

Categories of Analysis	*Subcategory I*	*Subcategory II*
Accuracy of response	*F+ or F–*	
Differentiation	Types of figures perceived	Quasi-human detail Human detail Quasi-human Human
Articulation	Perceptual attributes	Size or physical structure Clothing or hairstyle Posture
	Functional attributes	Sex Age Role Specific identity
	Degree of articulation	Number of features articulated Number of responses
Integration	Motivation of action	Unmotivated Reactive Intentional
	Integration of object and action	Fusion of object and action Incongruent action Nonspecific action Congruent action
	Content of action	Malevolent Benevolent
	Nature of interaction with another object	Active-passive Active-reactive Active-active

samples. We address each of these issues in evaluating the validity of the COR scale.

VALIDITY OF THE COR SCALE

Reliability

In Blatt et al.'s (1976) initial study, reliability was assessed with percentage of agreement, with a minimum of 90% agreement found between two raters in all but two categories. For those two categories, the agreement figures were 84% and 82%. Ritzler, Zambianco, Harder, and Kaskey (1980) also used agreement percentages to assess reliability and found values between 75% and 91%. Lerner and St. Peter (1984) reported similar reliabilities on a subset of twenty protocols. Thus, the early studies of the COR scale reported agreement percentages as the reliability metric. Although at the time of the Blatt et al. and Ritzler et al. studies, agreement percentages was an acceptable metric of reliability, it is now considered a problematic statistic because it ignores chance agreements and does not allow for testing statistical significance. Three studies have used the kappa (K) or the Pearson r in addition to agreement percentage to calculate reliability (Greco & Cornell, 1992; Hibbard, Hilsenroth, Hibbard, & Nash, 1995; Stuart et al., 1990). Greco and Cornell found 98.5 % agreement between two raters and a K of = .97, and Stuart et al. found Ks ranging from .62 to .96, with an average K of .80. These levels of reliability are in the good to excellent range (Fleiss, 1981). Hibbard et al. found 84% agreement and Pearson correlations ranging from .89 to .95. Thus, prior research indicates that these COR variables can be scored reliably and that the reliability of the subscales has been consistently replicated.

Blatt, Ford, Berman, Cook, and Meyer (1988; cf. also Blatt & Ford, 1994) trained a senior undergraduate, untrained with and uninformed about the Rorschach, to score the COR scale on data collected at the Austen Riggs Center. This student achieved an item alpha intraclass correlation coefficient (ICC) of .70 or greater in scoring all six categories of the COR scale when her ratings were compared with those of an expert scorer. This same student also scored the COR scale on Rorschach data collected as part of the Menninger Psychotherapy Research Project (MPRP; Blatt, 1992; Wallerstein, 1986), and in both of these investigations, this rater scored only the COR scale. The evaluations of the other Rorschach dimensions (e.g., thought disorder, accuracy of the responses) were scored by separate raters.

Construct Validity

Developmental Changes. The COR scale was first used to study the development of human responses on the Rorschach in a longitudinal study of normal subjects over a 20-year period from early adolescence to young adulthood (Blatt et al., 1976). Thirty-seven normal subjects had been given the Rorschach at ages 11–12, 13–14, 17–18, and 30; these protocols were analyzed in a repeated measures design. The results indicated that formal properties of the human responses show consistent changes with development. The number of well-differentiated, highly articulated, and integrated human figures increased significantly with normal development, from preadolescence (age 11–12) to adulthood (age 30). The attribution of activity congruent with important characteristics of the figures and the degree to which the object was seen as in-

volved in constructive and positive interactions also increased significantly with age. Developmentally, differentiation of the object, fuller articulation of attributes, integration of action, and interactions that were reflective, motivated, purposive, and benevolent significantly increased with age. The number of inactive human figures decreased significantly over time, with a trend toward less distorted or partial human figures. This developmental progression in the quality of human responses with age is consistent with the developmental model upon which the COR scale is based, and it demonstrates the construct validity of this scoring system for the Rorschach as an assessment of psychological development.

Comparisons Across Diagnostic Groups. The COR scale was also used to study the human response in the Rorschach protocols of a sample ($N = 48$) of seriously disturbed adolescents and young adults hospitalized in a long-term, intensive treatment facility (Blatt et al., 1976). Although no significant relationships were found between the degree of thought disorder on the Rorschach and any aspects of accurately perceived human responses, more seriously disturbed patients, as compared with both less seriously disturbed patients and normal participants, gave significantly more inaccurately perceived human responses that were more fully articulated, had more unmotivated and nonspecific action, depicted interactions that were primarily active-passive and active-reactive, and contained both benevolent and malevolent content. Thus, significant relationships were found in seriously disturbed patients between severity of psychopathology and aspects of inaccurately perceived human figures (Blatt et al.). Unexpectedly, the patient group provided developmentally lower level responses when they gave accurately perceived human responses and developmentally higher level responses to more inaccurately perceived human responses. These unexpected findings led Blatt et al. to hypothesize two independent dimensions in the psychotic experience. First, psychotic individuals trying to grapple with consensual reality maintain interpersonal contact function at a developmentally lower level, in which reality is experienced as distorted, malevolent, and destructive. Second, when such persons are absorbed in unrealistic fantasies, they are able to function at a developmentally higher level, in which the world is experienced as benevolent. For only the most seriously disturbed patients, as defined by severity of thought disorder, were both inaccurately and accurately perceived humans experienced as distorted and malevolent. These findings were replicated by Ritzler et al. (1980).

The COR scale has been used in several studies of clinical samples. Blatt, Berman, et al. (1984) and Blatt and Berman (1990) applied the measure to a sample of 53 patients with opiate dependence in an attempt to

differentiate subgroups in this population, rather than regarding the population of opiate-dependent patients as homogeneous. Cluster analysis identified three subgroups that could be distinguished along dimensions derived from the COR scale: a first group characterized primarily by disturbances in interpersonal relatedness, a second group characterized primarily by affective lability, and a third group characterized by an orientation toward fantasy-generated perceptions. Blatt et al. (1988) and Blatt and Ford (1994) applied the COR scale to identify changes in 90 seriously disturbed, treatment-resistant patients in long-term inpatient treatment. They distinguished between two clinical groups, anaclitic patients preoccupied with issues of interpersonal relatedness and introjective patients preoccupied with issues of self-definition and self-worth (e.g., Blatt, 1974, 1990, 1995b; Blatt & Shichman, 1983). Blatt et al. (1988) found that clinical change in introjective patients was associated with improved cognitive functioning, whereas clinical improvement in anaclitic patients was associated with improved interpersonal relationships, as indicated by a reduction in both the developmental mean and the developmental index for *OR*– responses on the COR scale. Greco and Cornell (1992) compared the Rorschach protocols of 55 adolescents who committed either homicide or nonviolent offenses. Although the adolescents who committed homicide did not differ from nonviolent delinquents in the quality of their object differentiation, adolescents who committed a homicide during another crime (such as robbery) had worse object differentiation than adolescents who committed a homicide in the context of an interpersonal dispute. Piran (1988) applied the COR scale to differentiate between 65 restricting and bulimic anorexics. Although the two groups did not differ in terms of differentiation, the bulimic group produced significantly more malevolent responses.

Research on the COR scale has contributed to the construction of a developmental model of representation (e.g., Blatt, 1991, 1995b; Blatt & Shichman, 1983) that posits a continuum of psychopathology from neurotic to borderline to psychotic. Spear and Lapidus (1981) studied 55 inpatients that they classified into three groups: obsessive-paranoid borderline personality, hysterical-impulsive borderline personality, and nonparanoid, undifferentiated schizophrenia. The obsessive-paranoid borderline group had developmentally higher levels of object representation. Farris (1988) applied the COR scale to differentiate between 18 narcissistic and 18 borderline patients. He found that narcissistic participants produced significantly more differentiated, articulated, and integrated responses than did borderline participants. Hymowitz, Hunt, Carr, Hurt, and Spear (1983) found that borderline patients diagnosed by the Diagnostic Interview for Borderlines (Gunderson, Kolb, & Austin, 1981) evidenced higher total

developmental scores on the COR scale, as compared to schizophrenic patients. Johnson and Quinlan (1993) compared 31 normal subjects with 42 schizophrenic patients on a role-playing task scored with the COR scale (16 paranoid, 11 intermediate, and 15 nonparanoid). They reported that, although the normal group's representations were the most differentiated, integrated, and complex, no differences were found between normal and paranoid schizophrenic patients on the developmental level of representation. The paranoid schizophrenic patients, however, were found to be at a higher developmental level on the COR scale than were the nonparanoid schizophrenic individuals. This finding is consistent with research indicating that a paranoid orientation can be organizing, as compared with the more diffuse orientation of nonparanoid schizophrenic patients (Blatt & Wild, 1976; Blatt, Wild, & Ritzler, 1975).

Lerner and St. Peter (1984) studied the Rorschach protocols of 70 patients classified into four groups: outpatient neurosis, outpatient borderline personality, inpatient borderline personality, and inpatient schizophrenia. They found that, as predicted, less severe psychopathology was correlated with developmentally higher level responses on responses with good form level accuracy. The inpatient borderline group, however, had greater investment in responses with poor form level. They had high levels of differentiation on inaccurately perceived human responses. The inpatient borderline group also had the most malevolent content and was the only group to produce inaccurate malevolent responses. In contrast, the outpatient borderline group's responses were more accurate but were primarily quasi-human figures, rather than whole humans. Lerner and St. Peter noted that the outpatient borderline group may defensively maintain distance from people to avoid painful interactions that might threaten their connection to reality. In contrast, because the inpatient borderline group seems unable to mobilize defenses that would allow them to establish this distance, their contact with reality suffers.

In comparing the two inpatient groups, Lerner and St. Peter (1984) found that the inpatient borderline groups produced significantly more (accurate and inaccurate) human responses and significantly more malevolent responses than did the inpatient schizophrenic group. Citing Blatt et al. (1976) and Ritzler et al. (1980), they noted that, unlike schizophrenic patients, who could withdraw from a painful reality filled with malevolent objects into an idiosyncratic but benevolent internal reality, inpatient borderline patients seemed unable to mobilize defenses that would protect them from a malevolent world.

Psychotherapy Effects. Blatt and his colleagues also used the COR scale as an outcome measure of change in psychotherapy research. In a

reanalysis of the data from the MPRP, Blatt (1992) evaluated 33 Rorschach protocols obtained before the beginning and at the end of either a supportive-expressive psychotherapy (SEP) or psychoanalysis. Statistically significant differences were found between anaclitic and introjective patients at the beginning of treatment, with introjective patients showing a greater investment in inappropriate, unrealistically perceived human forms than did anaclitic patients. Furthermore, a significant treatment main effect was found for the developmental level of accurately perceived figures, with greater improvement for introjective patients in psychoanalysis, rather than in psychotherapy. A similar nonsignificant trend was noted for anaclitic patients, with greater change also in psychoanalysis, as opposed to psychotherapy.

Further analyses of the data from the MPRP by Blatt and Shahar (2004) indicated a significant treatment effect, as evidenced by a significant increase in adaptive representations, measured by the developmental index of *OR+* responses for both anaclitic and introjective patients in psychoanalysis, rather than in SEP. Whereas these two treatments had different effects on changes in the two groups' adaptive interpersonal schemas, as measured by the developmental mean of *OR+*, no significant changes were noted for *OR–* in either anaclitic or introjective patients in psychoanalysis and SEP. It is important to note that the developmental level of accurately perceived human responses (*OR+*) was more relevant in the study of the therapeutic response of outpatients, the groups studied in the MPRP, whereas the developmental level of inaccurately perceive human responses (*OR–*) was more relevant in the study of the therapeutic response of the more seriously disturbed inpatients in the Riggs-Yale project (Blatt & Ford, 1994).

Critique and Future Directions

Several studies have examined the relationship between the quality of human object representation, as measured by the COR scale, and psychopathology. Hibbard et al. (1995) evaluated Rorschach protocols, using the COR scale, and Thematic Apperception Test (TAT; Morgan & Murray, 1935) protocols, using the Social Cognition and Object Relations scales (SCORS; Westen, 1989), of 94 patients from the University of Tennessee clinic files and 15 participants from a previous study of children of alcoholics. The structural scales of the COR significantly correlated with the structural scales of the SCORS, independent of IQ. Although the COR scale as a measure of object representations was validated, little support was found for a relationship between developmentally low-level responses as indicated by the COR scale and pathology as indicated by the Minnesota Multiphasic Personality Inventory (MMPI; Hathaway & McKinley, 1983). No significant correlation was

found between the structural scales of the COR and the individual scales of the MMPI. In addition, no correlation was found between the COR Scale and the Psychotic Triad, which aggregates the MMPI Paranoia, Schizophrenia, and Hypomania scales as an index of more severe psychopathology.

When Hibbard et al. (1995) related the COR scale to the Millon Clinical Multiaxial Inventory (MCMI; Millon, 1983), they found a significant correlation between the Motivation and Content of Interaction scales of the COR and a participant's highest score on the MCMI's three severe personality disorder scales (Schizotypal, Borderline, and Paranoid).[3] Stuart et al. (1990) compared the Rorschach protocols of 9 borderline patients, 13 depressed patients, 12 depressed borderline patients, and 26 normal participants. Like Lerner and St. Peter (1984), Stuart et al. found that borderline participants provide cognitively sophisticated but distorted and malevolent representations of human objects.

Westen (1990) cited evidence that borderline patients construct more malevolent representations than even do schizophrenic individuals but also exhibit cognitive sophistication that exceeds that produced by healthier participants. Westen noted that such findings contradict traditional notions of pathology as falling along a single developmental continuum from neurotic to psychotic. He contended that different pathologies are best understood as each having progressed differently along multiple developmental lines. With regard to the development of object relations, Westen noted the need for a distinction between cognitive and affective development. However, his own research (Stuart et al., 1990) raises the question of the degree to which borderline patients evidence actual cognitive sophistication. Westen himself noted that borderline patients often evidence a hypercomplexity or pseudocomplexity, but the program of empirical research on projective measures that Westen described does not seem to include any correction for this.

[3]These modest relationships between projective scores and self-report test scores could be interpreted as representing evidence for the discriminant validity of the measure (Bornstein, 1999; McClelland, Koestner, & Weinberger, 1989). This interpretation is consistent with findings across a number of subfields of psychology (e.g., studies of memory, personality, attachment, emotion, motivation, psychopathology, and attitudes) that have found a distinction between measurement of explicit and implicit processes. For example, research on self-esteem finds that self-report measures and priming procedures tend to correlate minimally with one another but that both predict relevant criterion variables (Bosson, Swann, & Pennebaker, 2000). Similarly, research on adult attachment finds that self-report measures and interview measures scored primarily by noting awkward pauses, gaps in memory, incoherent discourse, and other signs of defensiveness are only moderately correlated (Shaver, Belsky, & Brennan, 2000) but that both also predict relevant criterion variables (Bartholomew & Shaver, 1998; Crowell, Fraley, & Shaver, 1999). Thus, projective test scores should correlate modestly with self-reports; strong correlations would be conceptually problematic in most instances (Bornstein, 2001; McClelland et al., 1989).

Fonagy, Gergely, Jurist, and Target (2002) noted the hypercomplexity of some patient groups and the impact this style has on an individual's ability to reflect on the mental state of another person (see also Louis Sass, 1992, in this regard). For example, in the scoring of Reflective Function (Fonagy, Target, Steele, & Steele, 1998)—that is, the ability to reflect on one's own mental states and those of others—on the Adult Attachment Interview (George, Kaplan, & Main, 1985), the rater is instructed to consider factors like a hyperanalytic quality and a sureness of the other's mental state as signs that genuine mentalization (i.e., genuine understanding of mental states) might not be present.

Fritsch and Holmstrom (1990) applied a modification of the COR scale scoring that corrects for this very issue. In a sample of 84 adolescent inpatients, they found that, although good form accuracy correlated with adjustment potential, poor form accuracy did not have such a linear relationship. As Blatt et al. (1976), Ritzler et al. (1980), and Lerner and St. Peter (1984) noted, individuals with severe psychopathology may be able to display good differentiation, but only in the context of inaccurate responses. Fritsch and Holmstrom modified the COR scale to weight form level to correct for decreased maturity of inaccurate responses, whether differentiated or not, because such responses do not conform to consensual reality. In other words, a highly differentiated, integrated, and articulated response with poor form would receive a low weighted value, despite its high absolute value on the structural scale. With this modification, they found that developmentally advanced levels of human responses differentiated nonpsychotic from psychotic patients and correlated significantly with independent ratings of high interpersonal relatedness and less severe psychopathology.

We have contended in this chapter that, in contrast to the approach embodied in the Comprehensive System, the Rorschach is best viewed as a theory-driven evaluation of the content and structural organization of an individual's representational capacities, rather than an atheoretical, empirically based test. Although it is of course also our belief, as this chapter demonstrates, that empirical validation is still necessary for clinical propositions derived from the Rorschach, we nevertheless argue that the clinical information obtained through the Rorschach is meaningful only to the extent that one has a theoretical understanding of the psychological operations involved in constructing responses to the test. Alternatively, the Rorschach is best regarded as a representational assessment (Blatt, 1990, 1999b; Leichtman, 1996), a task through which the testing participants construct or reveal their representational, relational, and experiential worlds (see Lerner, 1998). On this perspective, the many scores and ratios that constitute the Comprehen-

sive System would have greater meaning if they had some underlying theoretical perspective. And it is precisely a theoretical perspective that is currently absent from the Comprehensive System use of Rorschach responses. The COR scale, as discussed in this chapter, involves an integration of psychoanalytic, experiential-phenomenological, and cognitive-developmental theoretical concepts.

As we have therefore argued, the COR scale is one example of a family of post-Rapaportian approaches to the Rorschach (e.g., Leichtman, 1996; Lerner, 1998) that have emerged as part of the general movement in the psychoanalytic world since 1970 toward a more relational and experiential model of psychological functioning. But whereas the COR Scale was meant primarily to measure level of object relations, empirical research with this instrument has shown that object representation is in fact a multidimensional construct that cannot be reached through an atheoretical approach like that exemplified by the Comprehensive System, the MMPI, or many self-report measures. Thus, it is perhaps unsurprising that, as Blatt et al. (1976) showed in their initial study of the COR scale, object representations show increasing differentiation, articulation, and integration as testing participants grow from children to adults. One needs only a cognitive developmental theory like those of Piaget or Werner to account for this developmental progression. But this cognitive developmental model does not account for Blatt et al.'s finding, confirmed by Ritzler et al. (1980) and Lerner and St. Peter (1984), that accurately and inaccurately perceived human responses serve diverging psychological functions. Specifically, by differentiating between accurately and inaccurately perceived human responses on the Rorschach, Blatt et al. found that highly disturbed patients gave more differentiated, articulated, and integrated responses when their human percepts had poor form quality (i.e., were inaccurately perceived). To explain this seemingly paradoxical finding, Blatt et al., Ritzler et al., and Lerner and St. Peter turned to psychoanalytic object relations theory—specifically, to the idea that investment in unrealistic object relations was crucial to the psychological functioning of such individuals. For schizophrenic patients, this investment in unrealistic object relations reflects a withdrawal from a painful reality filled with malevolent objects into a world of idiosyncratic but benevolent fantasies. For borderline patients, the presence of inaccurate malevolent responses suggests this group of patients is unable to use unrealistic fantasies to contain negative object relations. Later research (e.g., Stuart et al., 1990) is also consistent with the observation that object representation is in fact multidimensional, and thus results from the COR scale, originally meant to be only a measure of a construct, object relations, have forced us to conclude that object representations are more complex

and sophisticated than we had initially believed. In short, research with the COR scale, a measure derived from an integration of cognitive developmental theory with psychoanalytic object relations theory, has produced a more detailed view of psychoanalytic object relations theory and has elucidated aspects of psychopathology and the nature of therapeutic change.

Having described in some detail the consequences that research on the COR scale has had for object relations theory, we now turn, in closing, to the connections between the concepts of this measure and relational currents in psychology more generally. As we argued at the beginning of this chapter, psychoanalysis in the past 30 years has taken a relational turn, a shift from a one-person to a two-person psychology, and the COR scale was part of that shift within psychoanalysis and psychological assessment. The COR scale is important, however, not only because of the part it played in this paradigm shift in psychoanalysis, but also because it is congruent with a more general shift within psychology as a whole toward a relational understanding of human functioning. This development is particularly important because it reverses long-standing biases in Western thought toward autonomous individualism in our psychological theories. Perhaps most prominent in this shift is Bowlby's (1982) attachment theory (see Cassidy & Shaver, 1999) because Bowlby's ideas make the profound claims that the human desire for relatedness derives from Darwinian processes and that disturbances in attachment increase the likelihood for the development of psychopathology. Furthermore, although Bowlby's ideas on attachment are firmly rooted in psychoanalysis, he also formulated his theories in a manner that made them readily subject to empirical test. Indeed, a meta-analysis (Van IJzendoorn, 1995) showed that parents' attachment style can be used to predict the attachment styles of their children with a classification accuracy of approximately 75%, and a subsequent meta-analysis (Van IJzendoorn & Bakerman-Kranensburg, 1996) found that 55% of adults in the nonclinical population have secure attachments, as opposed to only 8% of participants from clinical samples. Because Bowlby's ideas, like those of Blatt, derive largely from psychoanalysis, it should come as little surprise that, although he has not updated the COR scale, Blatt and colleagues (e.g., Blatt, 1995b; Blatt, Auerbach, & Levy, 1997; Blatt & Levy, 2003; Diamond & Blatt, 1994; Levy & Blatt, 1999; Levy, Blatt, & Shaver, 1998) incorporated the findings of attachment theory and research into their current understanding of object representation. This was a surprisingly easy accomplishment because Blatt, like Bowlby, has long been interested in the psychological representation of emotionally significant relationships, as well as in the empirical test of psychoanalytic theories.

Attachment theory, however, is not the only perspective within psychology that reflects the field's recent relational turn. For example, two recent books published by the American Psychological Association (Horowitz, 2004; Joiner & Coyne, 1999) argued for the interpersonal or interactional nature of psychopathology, and in neither volume was there a specific link to psychoanalysis and its growing cadre of relational thinkers. Meanwhile, if we turn from the psychopathology literature to the literature on psychotherapy and treatment, we find a similar growth in relational thinking. For example, among radical behaviorists (e.g., Hayes, Strosahl, & Wilson, 1999; Kohlenberg, Hayes, & Tsai, 1993; Kohlenberg & Tsai, 1991), there is a new interest in the therapeutic relationship, conceptualized in terms of mutual operant processes, as a means of producing therapeutic change. Cognitive theorists (e.g., Migone & Liotti, 1998; Safran & Segal, 1990) are also writing about how cognitive change occurs in an interpersonal context, and in more recent writings, cognitive theorists like Safran and Muran (2000), increasingly influenced by relational currents within psychoanalysis, have begun to describe therapeutic change as an essentially relational process. Thus, in response to the movement for empirically validated treatments, psychotherapy researchers have martialed an impressive body of empirical evidence that factors like the therapeutic relationship and the therapeutic alliance are crucial to the process of therapeutic change (see Norcross, 2002; Wampold, 2001). For example, Klein et al. (2003) recently found, in a study of the cognitive behavioral analysis system of psychotherapy, that early therapeutic alliance predicted improvement in depressive symptoms but that symptomatic improvement did not predict the subsequent level or course of the alliance (see also Zurolf & Blatt, 2004). According to these results, the therapeutic relationship is a crucial factor in producing therapeutic change, not an artifact of symptomatic improvement. Meanwhile, in the psychoanalytic tradition, the process research of Jones and Price (1998) has pointed to the central role of what Jones (1997) termed *interaction structures* in psychoanalytic and psychodynamic treatments.

Indeed, the previous two paragraphs barely do justice to the many new relational currents within not only psychoanalysis but psychology as a whole, but it does bear reiteration that this relational turn began as a movement within psychoanalysis and that the COR scale was part of that movement, a part that has also insisted on the role of empirical scrutiny of the new movement's theoretical claims. Nearly three decades after this measure first appeared in the published literature, the COR scale remains surprisingly relevant, even in an age in which the Rorschach and other projective tests are under renewed criticism for their alleged empirical inadequacies (Dawes, 1994; Garb, 1998; Garb et al., 2002; Grove & Barden, 1999; Hunsley & Bailey, 1999;

Wood & Lilienfeld, 1999; Wood, Nezworski, Lilienfeld, & Garb, 2003). Sadly, space precludes a full discussion of the issues raised by recent Rorschach critics, although we note here that we are in agreement with many of their critiques of the Comprehensive System, perhaps most of all because we believe that the Rorschach is best regarded as a theoretical instrument with complex variables, rather than as the atheoretical, empirically driven test that Exner (2002) envisioned. We agree with many of the empirical critiques that these writers have leveled against the Comprehensive System as well. In this literature, concerns are raised about such topics as scoring reliability, test-retest reliability, validity, the extent and stability of the Comprehensive System's normative database, incremental validity, differential diagnosis, clinical utility, and accessibility of research results. In our opinion, the last of these issues is perhaps most important because it speaks to an essential issue in the process of scientific inquiry: the matter of review by one's academic peers. Unfortunately, many of the studies that Exner cited in support of his scoring system have never been peer reviewed and are published in his own private publication series, the Rorschach Workshops. A little over a decade ago, therefore, Sidney Blatt (personal communication, 1992) stated that, in his judgment, the Comprehensive System had initially saved the Rorschach because it appealed to the empirically oriented academic community but that Exner's atheoretical, non-peer-reviewed empiricism could eventually be responsible for the Rorschach's demise. It seems that Blatt's view of the Comprehensive System has proved to be prophetic.

Despite our concerns about the problems with the Comprehensive System (see Auerbach, 1999; Blatt, 1995a), we not surprisingly believe that there is significant evidence in support of the Rorschach as a method for assessing complex psychological processes and behaviors. Indeed, an important meta-analytic review (Hiller, Rosenthal, Bornstein, Berry, & Brunell-Neuleib, 1999) supports the validity of this means of personality assessment, and the volume in which this chapter appears stands as a testament to the creativity of Rorschach researchers in developing theoretically compelling, empirically validated means of using this assessment procedure. These approaches have demonstrated that the Rorschach is useful for what it discovers about psychological operations like object relations and cognitive processes like thought disorder and perhaps less so for its use in empirical prediction of behavior or diagnostic status, although there are several good examples available regarding the utility of Rorschach methods (e.g., the Thought Disorder index: Holzman, in press; Johnston & Holzman, 1979; the Rorschach Oral Dependency scale: Bornstein, 1996; Lilienfeld, Wood, & Garb, 2000; Masling, 1986; the Rorschach Prognostic Rating scale: Meyer & Handler, 1997) in psychodiagnosis and the prediction of objective behaviors.

As for the COR scale, its importance lies not only in its having garnered empirical support as a measure of object relations but also in its congruence with the relational turn within psychology. Indeed, two recent reviews of Blatt's contributions to the Rorschach and to projective testing in general conceptualize its contributions—theoretical, clinical, and empirical—in terms of these relational currents (Lerner, in press; Ritzler, in press). As a measure of object relations, the COR scale has helped to clarify the nature and function of object representations. Specifically, through its differentiation of realistic (*OR+*) and unrealistic (*OR—*) responses, the COR scale demonstrates that human representation is complex and multidimensional, and that a well-differentiated, articulated and integrated response may change dramatically in meaning, depending on whether it is accurately or inaccurately perceived. The original validation research for this measure also showed, in accordance with classic psychoanalytic thinking, that object relations and representations grow in sophistication—in differentiation, articulation, and integration—through the processes of normal development. Most of all, therefore, the value of the COR scale as a measure of psychological development and functioning, in both clinical and nonclinical contexts, speaks to the centrality and complexity of interpersonal relatedness in human affairs.

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Appendix
A Developmental Analysis of the Concept of the Object on the Rorschach

The importance of the human response on the Rorschach has been noted often in a variety of contexts, but generally with a minimum of theoretical elaboration. Aspects of these responses may have particular relevance for the study of the development of the concept of the object and its impairment in psychopathology. This scoring system is an attempt to apply developmental principles of differentiation, articulation, and integration (Werner, 1948/1957; Werner & Kaplan, 1963) to the study of human responses given to the Rorschach.

Differentiation is defined as the nature of the response with human content; *articulation* is defined as the degree to which the response was elaborated; and *integration* is defined as the way the concept of the object is integrated in a context of action and interaction with other objects. Within each of these areas, categories are established along a continuum based on developmental levels. Within each category, ratings range from developmentally lower to developmentally higher levels.

CATEGORIES OF ANALYSIS AND SCORING PROCEDURES

I. Selection of Responses

A. Human and quasi-human responses

All human (*H*) and quasi-human ([*H*]) responses are scored. Human and quasi-human details are scored if they: (a) involve human activity (e g., talking, pointing, struggling), (b) involve a substantial portion of the card and not just small, rare, or edge details, and (c) contain some description of explicit human or humanoid characteristics. Thus, independent of their location, the following responses would be scored:

"the face ... of an old man with wisps of hair on the side"
"a man with sunglasses on"
"a girl's head"
"a baby's face"
"baby's hands with mittens on"
"face with a large hooked nose"
"faces of two angels"

B. Animal responses

In some rare instances, animal responses are classified as quasi-human if the animal is explicitly given qualities that only a human could have. The exceptional quality of this classification must be emphasized. It is not meant to include all responses scored as Animal Movement (*FM*). Though the following responses might be scored FM, they would not be included as a human or quasi-human response:

1. Humanlike actions that could be achieved as the result of special training and that might, therefore, be expected in the context of a circus act.
2. Activities that humans perform but that can also be performed by animals (e.g., rubbing noses). The human content must be explicit. If, for example, "Bugs Bunny" is given as a response, it is scored only if Bugs Bunny is engaged in a clearly human action. Thus, Bugs Bunny crying or talking would be scored as quasi-human ([*H*]) response.

Applying these criteria, the following animal responses would be scored as quasi-human:

"a hookah-smoking caterpillar ... from *Alice in Wonderland*"
"two drunken penguins leaning on a lamppost ... they're definitely sloshed"
"two lobsters coming out of a saloon ... and they kind of have their arms around one another"

"seagull ... laughing, making fun of somebody"
"two frogs ... tête-à-tête ... two angry frogs, their mouths are downcast"
"spiders (at an insect ball) eating spareribs"

II. Scoring Procedures

A. Accuracy of the response

Responses are classified as perceptually accurate or inaccurate (*F+*, *F±*, *F−+*, *F−*). *F+* or *F±* responses are classified as accurate, and *F−* responses and *F−+* responses are classified as inaccurate (Allison, Blatt, & Zimet, 1968); Rapaport, Gill, & Schafer, 1945).

B. Differentiation

Here responses are classified according to types of figures perceived–whether the figures or subjects of the action are quasi-human details, (*Hd*); human details, *Hd*; full quasi-human figures, (*H*); or full human figures, *H*.

1. Human responses: To be classified as a human response, the figure must be whole and clearly human. Examples are:
"people"
"men"
"baby"
"African slaves"
2. Quasi-human responses: Here the figures are whole but less than human or not definitely specified as human. Examples are:
"witches"
"dwarfs"
"two opposing forces, sticking out arms and hands. Opposing forces, pitted against each other ... looking at each other. With complicated ... of talons, appendages, arms raised in combat .... Person maybe ... standing there, being very offensive and attacking."
3. Human details: Here only parts of human figures are specified. Examples are:
"hands strangling"
"faces staring at each other"
4. Quasi-human details: Here only part of a quasi-human figures is specified. Examples are:
"angel's face"
"witch's head"
"devil face"

C. Articulation

Here responses are scored on the basis of types of attributes ascribed to the figures. A total of seven types of attributes are con-

seem to provide information about human or quasi-human figures. The analyses are not concerned with the sheer detailing of features or with inappropriate articulation. The analyses are concerned only with articulations that enrich human or quasi-human responses, and that enlarge a listener's knowledge about qualities that are appropriate to the figures represented. For example, a response that states that a man has a head, hands, and feet does not enlarge the listeners' knowledge about the man. Possession of these features is presupposed by the initial response, "man." An articulation such as "a man with wings" is not scored as an articulation because it is an elaboration that does not add to the specifications of the human or quasi-human features of the figure.[4]

There are two general types of articulation: the articulation of perceptual and functional attributes.

1. Perceptual characteristics

a. Size or physical structure: For this aspect to be scored as articulated, descriptions of the figure must have adjective status. Thus, no credit is given in a response where an examinee only says that a man has feet or that a hand has fingers. Size or structure is scored as articulated only if there is a qualitative description of aspects of body parts of the whole body. Descriptions of bodies or body parts as "funny" or "strange" are not scored as indicating articulation of body structure.

Certain aspects of facial expression can be scored as articulations of size or structure. Included in this category are responses like "eyes closed" or "mouth open," in which the description of facial expression amounts to something more than just a description of physical appearance.

Applying these criteria, the following responses would be scored as articulations of size or physical structure:
"slim men"
"big feet"
"the top of the body is sort of heavy and her legs are real, real teeny"
"slanted eyes"
"chins protruding down from the face"
"eyes closed"
"mouths open"
"tongue was sticking out"

[4]Inappropriate articulations were not scored in the initial research with this manual (Blatt et al., 1976). In subsequent research it may prove useful to score both appropriate and inappro-

By contrast, the following responses are not scored as articulations of size or structure:
"women with breasts"
"they're shaped like people"
"eyes, nose, mouth"
"woman doesn't have a head"
"a pervert with bunny ears"
"person with wings instead of arms"

b. Clothing or hairstyle: For this aspect to be scored as articulated, there has to be a qualitative description of some aspect of either clothing or hairstyle. It must enrich the description of the figure. Simple mention of items of clothing implied by the response does not enrich one's understanding of the figures and is, therefore, not scored as an articulation. Using these criteria, the following responses are scorable as articulations of clothing or hairstyle:
"some kind of moustache ... right above its mouth"
"girls with ponytails"
"hair and the things sticking out of them, feathers"
"their pants would have to be skin tight and when they lean down, their jackets go pointing out, makes it look like a very tight jacket"
"a couple of witches with red hats"
"wearing a black coat and a homburg hat. Black coat is sort of billowing behind him ...."
"a full-tailed coat"
"two little girls all dressed up in their mother's things"
"Gay 90s type women ... both wearing a long bustle and feathers in hair"
"an American Indian in some ceremonial costume with wings and paraphernalia"
"a man ... with sunglasses on"

By contrast, the following responses would not be scored as articulations of clothing or hairstyle:
"two women with skirts on"
"shoes on"

c. Posture: Posture is scored if the response contains: (a) a description of body posture that is separate from the verb describing the activity of the figures or (b) a description of facial expression that goes beyond mere articulation of the physical appearance of features in that it contains a sense of movement or feeling. Posture is

not scored if body posture is implied in the verb rather than being separately articulated or if it is simply a description of a figure's position in space (e.g., facing outward).

Thus, the following responses are scored as articulations of posture:
"arms flung wide"
"head tilted"
"standing with legs spread apart"
"leaning on a lamppost"
"shoulders hunched"
"somebody hanging ... dangling down, dropped, formless, shapeless"
"eyes look piercing"
"gritting teeth"
"smiling"

The following responses are not considered articulations of posture:
"sitting"
"standing"
"doing a high dive"
"back to back"
"facing outward"
"mouth closed"

2. Functional characteristics
a. Sex: For sex to be scored, there has to be either a specific mention of sex of the figure or an assignment to an occupational category that clearly implies a particular sexual identity. If the final sexual identity is not decided but alternatives are precisely considered, sex is scored as articulated. If, however, the indecision is based on a vague characterization of the figures with an emphasis on the sexual nature of the figure as a whole, sex is not considered articulated. In the following responses, sex is scored as articulated:
"man"
"girl"
"witch"
"mother"
"priest"
"either an old man or an ugly woman"
"two boys putting on a disguise kit or a girl with her makeup kit"

By contrast, sex is not scored as articulated in these responses:

"Well, these look like two human figures. I think when you look at the breasts there, they're girls. Then down here could look like phalluses. I don't know. It's rather ambiguous, confusing ... protrusions from the thorax, you know."

"Looks like two people. Could be a woman or a man. I debated this for a minutes. [sic, meaning?] Well, this form could be women or the costuming of man. [?] Well, I guess it would be tights and sort of loose shirt. I don't know exactly."

"Two people beating drums in a way like both might be women. In another way, like men. Doesn't seem to be any real indication whether they are male or female. The rather extended chests seem to represent breasts of women and protuberance on bottom seems to be leg. There is something barbaric about the figures. Seems to be something of a representation of gods or something like that. They seem to be wearing high-heel shoes. Both of figures seem to be very awkward and look as though they're doing some clumsy movements in beating the drums. The heads also don't look human—look as though they're some kind of bird's heads."

b. Age: For this aspect to be scored, specific reference must be made to some age category to which the figure belongs. Thus, age is assumed to be delineated in the following responses:
"child"
"baby"
"old woman"
"young girl"
"little boys"
"teenagers"

By contrast, although some indication of age is implied in the following responses, the references are not specific. Thus, age is not scored in these responses:
"man"
"girls"
"boys"
"priests"

c. Role: When figures are human, a clear reference to the work a figure does (occupation) is scored as an articulation of role. With regard to quasi-human figures, role is scored if the manner in which the figure is represented implies that it would engage in certain activities rather than others. Thus, role is assumed to be articulated in the following responses:[5]

[5]When sexual identity is clearly indicated in a role designation, both sex and role are scored as articulated. Such a situation exists in the following responses: "mother," "witch," and "priest."

"soldier"
"priest"
"Spanish dancer"
"ballet dancer"
"princess"
"mother"
"witch"
"devil"
"elves"

Role is not scored in the following responses because there is no clear indication that they refer to occupation rather than a momentary activity:
"dancer"
"singers"

d. Specific identity: Here a figure must be named as a specific character in history, literature, and so on.[6] Examples are:
"Charles DeGaulle"
"Theodore Roosevelt"

3. Degree of articulation: This is the simple enumeration of the total number of types of features articulated. In the preceding section, seven types of attribution were described (size, clothing or hairstyle, posture, sex, age, role, and specific identity). Thus, for any single Rorschach response, a total of seven types of features could be articulated. The average number of features taken into account in each human or quasi-human response constitutes the score for the degree of articulation of individual figures. If, for example, a subject gave four human responses and attributed a total of ten types of attributes to them, his score for degree of articulation would be 2.5.

D. Integration

Integration of the response was scored in three ways: (a) the degree of internality of the motivation of the action (unmotivated, reactive, and intentional); (b) the degree of integration of the object and its action (fused, incongruent, nonspecific, and congruent); and (c) the integration of the interaction with another object (malevolent-benevolent, active-passive, active-reactive, and active-active). These analyses can be applied only to figures engaged in human activity.

[6]To the degree that age, sex, and occupation are clearly indicated in the specific identity, these features are also scored as articulated. Thus, in the response "Charles DeGaulle," sex and occupation are specified. Such is not the case in the response "piglet."

1. Motivation of action: The articulation of action in terms of motive implies a developmentally advanced perception of action as differentiated from but related to the subject. Moreover, motive can be ascribed in two ways: as reactive or as intentional. Reactive explanations involve a focus on past events, and behavior is explained in terms of causal factors; one assumes that, for a certain prior reason, an individual had to do a certain thing. By contrast, intentionality is proactive and implies an orientation toward the present or future. The individual chooses to do something to attain a certain end or goal. The ability to choose between motives and to purposively undertake an activity implies a greater differentiation between subject and action than is the case when an individual is impelled to take an action because of past occurrences. For this reason, the analysis of action considers whether a motive was provided and whether the motivation was reactive (causal) or intentional.

a. Unmotivated activity: Here action is described with no explanation of why it occurs. Examples are:
"two people kissing each other"
"women looking at each other"
"men leaning against a hillside"

b. Reactive motivation: Here perceived activity is described as having been caused by a prior situation (internal or external), and the subject is seen as having little choice in his reaction. Examples are:
"A German soldier on guard duty. I think he sees something and points his gun at it."
"Arabs recoiling from an Israeli bomb"
"a person afraid of a snake, standing on a rocky cliff with arms upraised as if he's going to hit with something"
"two women struggling over ownership of a garment"

c. Intentional motivation: For motivation to be scored as intentional, the action must be directed toward some future moment and subjects must be seen as, in some sense, choosing their action rather than having to react. Examples are:
"Halloween witches, making incantations over the fire, in preparation for All Hallows Eve"
"an orchestra conductor, his arms raised, about ready to begin"

2. Object-action integration: In this analysis, four levels of integration of the object with its action are distinguished (fused, incongruent, nonspecific, and congruent).

a. Fusion of object and action: For a response to be included within this category, the object must be amorphous and only the activity articulated. In such situations, object and action are fused. The object possesses no separate qualities of its own. It is defined only in terms of its activity. This type of response is exemplified here. In both instances, nothing is known about the object except what it is doing:
"Two opposing forces, sticking out arms and hands. Opposing forces, pitted against each other ... looking at each other. With complicated ... of talons, appendages, arms raised in combat ... Person maybe ... standing there, being very offensive and attacking."
"figures there with hands, standing with legs spread apart, reaching out with hands as if trying to grab something"

b. Incongruent integration of object and action: For a response to be included within this category, there should be some separate articulation of object and action. Something must be known about the object apart from its activity. Nevertheless, the activity is incongruous, unrelated to the defined nature of the object. The articulation of action detracts from, rather than enriches, the articulation of the object. Examples are:
"a great big moth, dancing ballet"
"two figures, one half-human and one half-animal holding two sponges"
"a little baby throwing a bucket of water"
"a satyr-thing bowling"
"two sphinxes pulling a decapitated woman apart"
"two beetles playing a flute"

c. Nonspecific integration of object and action: Inclusion within this category also requires some separate articulation of object and action. However, the relationship between the two elements is nonspecific. The figures, as defined, can engage in the activity described, but there is no special fit between object and action. Many other kinds of objects could engage in the activity described. Thus, although the articulation of action does not detract from the articulation of the object, neither does it enrich it. Examples are:
"one big person standing with arms raised"
"a knight, standing ready to do his job"
"cavemen leaning against a hillside"
"two figures dancing"
"two older women trying to pull something away from each other"

"two men fighting"
"a man running away"
"a person, sort of a girl, standing on her toes"

d. Congruent integration of object and action: For a response to be assigned to this category, the nature of the object and the nature of the action must be articulated separately. In addition, the action must be particularly suited to the defined nature of the object. By way of contrast with the preceding category, the action not only must be something the object might do, it must be something that the object would be especially likely to do. There is an integrated and particularly well-suited relationship between the object and the specified action. Moreover, the articulation of the action enriches the image of the object.[7]

3. Integration of interaction with another object
   a. Content of interaction[8]
      i. Malevolent: The interaction is aggressive or destructive or the results of the activity imply destruction or harm or fear of harm.
      ii. Benevolent: The activity is not destructive, harmful, or aggressive. It may be neutral, or it may reflect a warm, positive relationship between the objects.

   b. Nature of interaction: This analysis applies to all responses involving at least two human or quasi-human figures. In addition, this analysis can pertain to situations where a second figure is not directly perceived, but its presence is necessarily implied by the nature of the action.
      i. Active-passive interaction: Two figures can involve a representation of one figure acting on another figure in an active-passive interaction. One figure is active and the other entirely passive, so, although acted on, it does not respond in any way.
      ii. Active-reactive interaction: In this type of interaction, the figures may be unequal. One figure is definitely the agent of the activity, acting on another figure. The second figure is reactive or responsive only to the action of the other.
      iii. Active-active interaction: In this type of interaction, both figures contribute equally to the activity, and the interaction is mutual.

[7]In situations where the role definition of the object amounts to nothing more than a literal restatement of the action, object and action are not considered integrated. Responses like "dancer 's dancing," or "singer's singing" are scored as nonspecific (Level 3) relationships. However, responses such as "ballerina dancing" or "character from a Rudolph Falls opera, singing" are classified as congruent (Level 4) relationships.

[8]Examples for scoring both the nature and the content of interaction are presented in Table 4.A1. Notations in the left-hand margin indicated scoring for the nature of the interaction (active-passive: *A-P*, active-reactive: *A-R*, active-active: *A-A*). Notations in the right-hand margin indicated the scoring for the content of the interaction (malevolent: *M*, and benevolent: *B*).

COMPOSITE SCORES FOR THE CONCEPT OF THE OBJECT ON THE RORSCHACH

The concept of the human object is assessed for all responses that have any humanoid feature. These responses are evaluated for the degree of differentiation (whether the figure is fully human, quasi-human, or a part feature of a human or quasi-human figure); articulation (the degree to which the figure is elaborated in terms of manifest physical or functional attributes); motivation of action (the degree to which the action of the figure is internally determined—unmotivated, reactive, or intentional action); integration of the action (the degree to which the action is a unique attribute of the figure, e.g., fused, incongruent, nonspecific, or congruent); the content of the action (the degree to which the action is malevolent or benevolent and constructive); and the nature of any interaction with another figure (the degree to which the interaction is active- passive, active-reactive, or active-active, in which mutual, reciprocal relationships are established). In each of these six categories (differentiation, articulation, motivation of action, integration of the object and its action, content of the action, and nature of the interaction), responses are scored on a developmental continuum. This developmental analysis should be made separately for those humanoid responses that are accurately perceived (*F+*) and for those that are inaccurately perceived (*F–*).

Differential weighting for scores within each of the six categories for assessing the concept of the object reflects a developmental progression, with higher scores indicating higher developmental levels. Score values are as follows:

Differentiation: (*Hd*) = 1, *Hd* = 2, (*H*) = 3, *H* = 4.

Articulation: Score 1 for each perceptual feature and 2 for each functional feature

Motivation: unmotivated = 1, reactive = 2, intentional = 3.

Integration of object and action: fused = 1, incongruent = 2, nonspecific = 3, congruent = 4.

Content of action: malevolent = 1, benevolent = 2.

Nature of interaction: active-passive = 1, active-reactive = 2, active-active = 3.

Reliability estimates for the scoring of these six categories in *F+* and *F–* responses in both clinical and normal samples are quite high, ranging from .86 to .97.

To reduce the number of variables in the measurement of the concept of the object on the Rorschach, a factor analysis was conducted on the 12 object representation (*OR*) scores. A weighted sum for each of the six categories was obtained for *F+* and *F–* responses separately. Each of these 12 weighted sums was corrected by covariance for total response productivity. The residualized scores for each of these 12 variables (six categories each for *F+* and *F–* responses) were subjected to a common factors factor analysis with communalities less or equal to 1.00. Using the criteria of eigenvalues greater than 1.00, two factors were retained and rotated for an orthogonal varimax solution. These two factors accounted for 53.52% of the total variance. The factor analysis yielded two primary factors: the developmental level of accurately perceived responses (*OR+*; percent total variance = 27.19) and the developmental level of inaccurately perceived responses (*OR–*; percent total variance = 26.33). All six *OR+* scoring categories had factor loadings on Factor I that exceeded .70, and all six *OR–* scoring categories had factor loadings on Factor I that were less than .20. All six *OR–* scoring categories had factor loadings on Factor II that exceeded .53, and the loadings of the *OR+* categories did not exceed .20 on this factor.

All six residualized scores (that is, weighted sums covaried for total number of responses on the Rorschach) for *OR+* scoring categories should be standardized and then summed to give a total residualized weighted sum score for accurately perceived responses. The same should be done for all six *OR–* scores. The residualized weighted sum of accurately perceived human responses (*OR+*) is viewed as indicating the capacity for investment in satisfying interpersonal relationships. The residualized weighted sum of inaccurately perceived human responses (*OR–*) is viewed as an indication of the tendency to become invested in autistic fantasies rather than realistic relationships.

In addition to the residualized weighted sum of *OR+* and *OR–* scores, a mean developmental level should be obtained for each of the six categories for *F+* and *F–* responses separately. The six mean developmental-level scores for *F+* responses should be standardized and then combined into a total mean developmental-level score for *F+* response. The same should be done for *F–* responses. The mean developmental level for accurately perceived responses (*F+*) is viewed as another measure of the capacity to become engaged in meaningful and realistic interpersonal relations. The mean developmental level of inaccurately perceived responses (*F–*) is viewed as another measure of the tendency

to become involved in unrealistic, inappropriate, and possibly autistic types of relationships.

TABLE 4.A1
Integration of Interaction

Nature	*Example*	*Content*
A-P	A couple of undertakers lowering babies into the pit	M
A-P	A prostitute rolling drunk	M
A-P	Crucified man	M
A-P	A mother holding out her arm and telling her kid never to come back	M
A-P	Two sphinxes pulling a decapitated woman apart	M
A-P	Two people kneeling down with hands extended toward and touching other people	B
A-R	African natives beating a drum; martians applaud	B
A-R	Eve being tempted by a snake (snake seen on card)	M
A-R	Two people with hands up as if trying to ward off the two people coming to get them. Two guys with black capes ... coming in to get the other people	M
A-R	German soldier thinks he sees something and points gun at it	M
A-R	An orchestra conductor, arms raised, just about to begin	B
A-R	A woman crying out for something	M
A-R	A man trying to kill a little girl, who's running away	M
A-A	A woman with a child looking up at her	B
A-A	Someone having intercourse, a man child and a woman child, trying to make love but not knowing how	B
A-A	One person there is pointing and the other is listening	B
A-A	Two people and two martians fighting	M
A-A	Two gremlins ready to hit each other	M
A-A	People placing hands together—like victors, walking along like that	B