To the Graduate Council:

I am submitting herewith a dissertation written by Carol J. Atwater entitled "The Relationship Between Response Appropriateness and Measures of Object Relations on the Rorschach." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Psychology.

Sandra Loucks, Ph.D., Major Professor

We have read this dissertation
and recommend its acceptance:

Accepted for the Council:

Associate Vice Chancellor
and Dean of The Graduate School

THE RELATIONSHIP BETWEEN RORSCHACH MEASURES OF SOCIAL APPROPRIATENESS AND OBJECT RELATIONS

A Dissertation

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Doctor of Philosophy

Degree

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CAROL J. ATWATER

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DEDICATION

This dissertation is dedicated to my husband, Tom Williams, for his unwavering belief in me.

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ABSTRACT

This research examined the relationship between Rorschach measures of Social Appropriateness (form quality) and Object Relations. It was predicted that subjects high and low in Social Appropriateness would show significant differences on measures of object relational functioning. When differences between high and low subjects were increased using the method of polarities, three object relational measures differentiated the two groups. Subjects better in Social Appropriateness had proportionally fewer human responses (the opposite of what was predicted), had proportionally more articulated human responses, and had proportionally more malevolent human responses, than did subjects with poorer Social Appropriateness. A measure of psychopathological symptoms, the Cornell Index, failed to aid in the discrimination of the two groups. The finding that subjects with higher Social Appropriateness had fewer human responses suggests that the expression of human content may be inherently conflictual. A second possible explanation is that subjects who focus on human content may have greater anxiety concerning interpersonal issues. A third possibility

is that this may, in part, represent an adaptive style characteristic of the sample, who were high-achieving college students.

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CHAPTER I

INTRODUCTION

Object relations theory describes the formation and development of internal models of the self and others, and their influence on the personality (Hamilton, 1988). According to this theory, early relationships influence one's initial conceptions of oneself, important others and typical interactions, leaving their imprint on the earliest internalized images of these "objects."

Early interactional experiences that meet the psychological needs of the young child prevent undue anxiety and provide the infant with the expectation that his needs will be met in a predictable and sensitive manner. The internal psychological structures created by these positive experiences become increasingly integrated and complex with development. Future perceptions and relationships are guided by these structures, interacting in a reciprocal manner with external experiences. Conversely, negative experiences lead to less integrated object relational structures that are vulnerable to fragmentation and accompanied by poorly modulated, primitive drive states.

With increasing maturation, autonomous ego functions develop;

these include higher level defenses (particularly repression), impulse control, judgement and reality testing. These ego functions are at the service of the superordinate ego organization, which also organizes the interworkings of object relational structures. "The superordinate ego has the global task of bringing the various structures together into some cohesive and coherent form, and also of assuring that they conform with drive needs and with the requirements of reality" (p. 34, Blanck & Blanck, 1986). To the extent the ego is successful in meeting those objectives in a socially appropriate manner, there exists good ego strength. Poor ego strength may lead to impaired reality testing, due to the overwhelming influence of drives and introjects. Because reality testing and social appropriateness are such important aspects of ego strength, they are widely viewed as being reliable indicators of the quality of overall ego strength.

Object relations theory provided a new way to understand development and to conceptualize psychopathology. Because certain types of psychopathology were seen as reflecting faulty underlying object relational structures -- internal models which were unrealistic, punitive, or minimally articulated or differentiated -- treatment approaches were devised which were designed to address

those problems. This further called for accurate methods of measuring and tracking changes in object relational functioning in patients. This provided crucial information to the clinician seeking to understand his or her patients' psychological functioning, needs, and likely prognosis.

The Rorschach test has been particularly useful in this regard, in part due to the few constraints placed upon the responses. It yields a rich data set reflective of the cognitive and unconscious processes called into play in responding to the ambiguous test demands. In research linking object representations to the Rorschach Test, human content, such as the degree of detail in the image, whether whole or parts of humans are seen, and whether the emotional tone of the image is positive or negative have emerged as being particularly important and revealing of object representations (Blatt, 1976; Blatt & Lerner, 1983).

The Rorschach is a problem-solving test, in which a respondent is asked to describe an image or picture suggested by the inkblot, in response to the question, "What does this look like?" Each response provides a sample of cognitive behavior, in which the person gives a representative sample of how he or she would likely respond in other situations (Weiner, 1977; Erdberg, 1990; Exner, 1986). It also

provides a stimulus to fantasy, allowing the person an opportunity to project material related to internal need states onto the ambiguity of the ink blots. The response can then be analyzed and quantified according to a scoring system, and compared to established norms. The test data and pattern of scores provide a picture of psychological functioning which can be linked to behavior outside the test situation based on a large body of validity studies.

This study uses Rorschach measures to look at object relational functioning in subjects with good and poor social appropriateness. It was hypothesized that subjects with high and low Rorschach scores of Social Appropriateness would demonstrate significant differences in object relational functioning, as reflected in Rorschach measures of Interpersonal Expectations.

In this study, Rorschach measures that provide qualitative indicators of object relational functioning, as well as one non-Rorschach measure of psychopathological symptoms, were used to attempt to discriminate between the two groups of subjects (those with high and low Social Appropriateness). The object relational measures involved human content and interpersonal expectations, as well as cognitive complexity. Similar measures have repeatedly been shown to have object relational significance, particularly in

research by Blatt (1976) and Mayman (1967).

The Burstein-Loucks Rorschach scoring system will be utilized, as it integrates measures assessing interpersonal expectations into the scoring approach while also addressing problematic areas found in other scoring systems. The measures which will be used to differentiate the two groups include: Cognitive Complexity (particularly Arbitrary and Diffuse responses), the proportion of Human responses, the type of Human content (such as Whole Human and Human Face as compared to other types of Human content), the degree of articulation of Human content, the Motivational Valuation of all responses and of highly articulated Human responses, and the level of the Cornell Index, an independent measure assessing pathological symptoms.

The present study is part of a larger effort aimed at gathering Rorschach data from different populations, to provide validation and normative data on the Burstein-Loucks scoring system while examining a variety of questions highlighted by the test.

Subjects included in the study were College Scholars and Honors students at the University of Tennessee in Knoxville, TN, who volunteered their participation. Each student was given the Rorschach Test, as well as several pencil and paper tests, over two

testing sessions. The data used in this study was collected from 1984 to 1990.

CHAPTER II

REVIEW OF THE LITERATURE

Psychoanalysis and Object Relations Theory

In recent years, a growing interest in object relations theory, as described by Fairbairn (1952), Winnicott (1965), Kernberg (1976), Mahler (1968) and others, has been accompanied by the desire to apply this theory to clinical diagnosis and treatment.

Object representations are complex mental schemata, based on real-world experiences with people from the past and present, and influenced by affects, drives, and developmental level. As individuals develop and mature, their capacities for object relatedness also develop, and the internal schemata become increasingly differentiated, articulated and integrated (Lerner, 1986). As Lerner states, "Higher-level representations both reflect and provide psychological structure for the modulation of affects and for the capacity to transcend the immediate environment." In this way, well-developed and integrated psychological structure is created by good early object relations and largely determines the quality of object relations of which a person is capable later in life.

An adequately developed level of internalized self and object representations implies that the self is integrated; that there are not parts of the self that must be split off and repressed because of their unacceptability or "badness"; and that perceptions of others are likewise integrated into cohesive wholes and are perceived realistically rather than as projections of internal objects. A person's object relational capacity (based on the underlying structure) is expressed in an individual's experience of him or herself and in the perceived and actual relationships to others. To appreciate the shift in conceptual understanding within psychoanalytic theory created by object relations theory, it is useful to look at the historical framework from which it has evolved.

The Historical Development of Psychoanalytic Theory

Psychoanalytic theory was first developed by Sigmund Freud in the late 1890's (1949). The basic premise of his theory is that behavior is meaningful and understandable, resulting from compromises between multiple motivations. Some of these motives are conscious and reality-based, and others are unconscious.

Unconscious feelings, drives and fantasies reveal themselves through dreams, errors and in overt psychopathology. Psychological development is phasic, with successful resolution of previous stages needed to provide the stable foundation for higher-level development.

Important elements of Freud's theory include: the tripartite structural theory of id, ego and superego; the developmental theory of psychosexual stages and infantile sexuality (emphasizing the importance of oedipal conflicts); the topographic model of the mind (conscious, preconscious, and unconscious); and the drive theory of libido and aggression.

The unconscious drives and fantasies of the id come into conflict with reality-based considerations mediated by the ego and with internalized parental prohibitions of the superego. Unconscious conflicts cause anxiety, and defenses arise to allay anxiety and strengthen the ego. Unconscious motivations and their infantile origins may be understood, and conflicts resolved, through psychoanalysis using free association and interpretation. Freud's theory emerged in his work with patients in clinical situations, aided by his own self-analysis. As he developed his model, he increasingly came to appreciate the importance of unconscious

defenses against change, both in the patient's life, and by resistance to the therapeutic process, which took various forms.

It was not until relatively late in his career that Freud began to acknowledge the importance of the infant's tie to his or her mother, and he did not explore the nature of this to any great extent (Bowlby, 1969). Until the early 1920s, Freud had held that libido was overwhelmingly and solely auto-erotic, except for a brief period in which the infant related to the mother's breast as an object. And, in fact, Freud stated his opinion that children did not really miss people, during their absence.

"Anaclitic" is what Freud called the earliest object attachment in which the infant depends upon the mother and looks to her for care. While increasingly recognizing its importance, Freud nevertheless believed that the emotional attachment was secondary to the mother's function of protecting the child from danger, instead of a more primary relational need. He believed the infant's anxiety when separated from the mother was due to the child's inability to discharge sexual excitation in isolation. Later, Freud developed his signal theory, in which separation anxiety was seen as a signal intended to minimize any traumatic separation, a secondary response to the loss of the need-satisfying mother, and therefore a

learned reaction rather than a primary one.

By the end of Freud's life, the broad outline of psychoanalytic theory was firmly in place, and much of it remains to this day. There were, however, problems and limitations with the theory. The nature and importance of the ego was minimally defined, with relatively little recognition of the contribution of conscious processes and reality considerations. Early developmental processes leading to both normal and pathological outcomes were sketchy. The roles of environmental influences on development and functioning were scarcely recognized. The importance and function of early relationships in guiding development also needed to be defined.

Psychoanalytic theory expanded along several fronts following Freud's seminal writings, particularly through the work of American ego psychologists such as Heinz Hartmann (1939) and early British object relations theorists such as Melanie Klein (1948).

As a counterbalance to Freud's emphasis on unconscious processes, ego psychologists described the role of conscious awareness and, more fundamentally, of the ego in psychological functioning. Hartmann proposed that the ego developed from an undifferentiated matrix at birth, arising out of inborn capacities.

The organizing process of the ego promotes differentiation and integration. Out of conflicts between primitive drives and wishes, superego prohibitions and reality constraints, defenses emerge which further adaptation. Adaptation is also promoted through conflict-free ego functions such as the cognitive capacities of thinking, memory and perception.

Providing information directly relevant to clinical practice, ego psychologists explored the issues of transference neurosis and the therapeutic alliance, the relative importance of conscious motivations and reality factors in regulating a myriad of psychological functions, and techniques for addressing resistance in therapy (A. Freud, 1936; Kris, 1951). Kris developed the concept of regression in the service of the ego and started a longitudinal observational study of children at Yale University.

Anna Freud's The Ego and the Mechanisms of Defense described in detail a variety of defense mechanisms which could be directed against drives and affects as well as external dangers. These include repression, regression, reaction formation, introjection and projection. Writing in 1954 on issues of attachment and object relations, Anna Freud, echoing her father's belief, stated: "The relationship to the mother is not the infant's first relationship to

the environment...In the struggle for satisfaction of the vital needs and drives the object merely serves the purpose of wish fulfillment, its status being no more than that of a means to an end, a 'convenience.'" She believed this process did serve to turn narcissistic libido into object libido, when all proceeds normally.

Bowlby added to the increasing recognition of the importance of social interactions through his attachment theory, which describes the propensity of humans to form strong affectional bonds to particular primary caretakers. His theory also examines the many forms of emotional distress resulting from experiences of unwilling separation or loss (1958,1969,1973,1980). He believed that many forms of neurosis and character disorders could be attributed to maternal deprivation or discontinuities in the child's relationship with his mother.

Early attachment behavior is distinct from feeding and sexual behavior, according to Bowlby, and is equally important, in distinct contrast to the classical view that attachment is secondary. Attachment behavior is defined as any form of behavior that aids a person in maintaining or gaining proximity to a particular preferred individual. This leads to affectional bonds, which, once formed, can persist throughout life. Attachment behavior in the child is elicited

only when needed, particularly when confronted by strangeness, fatigue, a frightening situation, or the loss of an attachment figure. Noting that the responses of children aged two and three to maternal separation were similar to those found in older individuals who had endured separations earlier in life, Bowlby further observed that this resulted in either an emotionally detached child, one clinging and demanding of his mother, or both in an alternating fashion. He noted that if the child believed there might be further separations, he or she would become quite anxious. In children and adults who had experienced deficient maternal availability, the results were people who were anxious, angry and demanding, or those who were unable to form deep relationships with others. The processes involved in the child were comprehensively reviewed and described in Bowlby's three-book series on attachment.

The Contribution of the Object Relations Theorists

Melanie Klein was the progenitor of the British school of object relations. Klein (1935) stated that the infant was, from birth, capable of internalizing objects from the processes of introjection and projection, and that these internal objects governed

the psychological growth of the infant. This earliest period of psychological development, termed by Klein the "paranoid-schizoid position," was characterized by aggressive and destructive fantasies, and by the use of splitting and projection as defenses against the fantasies. The earliest internalized object, in Klein's view, was the maternal breast, which the infant experienced as split into two components, a "good breast" and a "bad breast." Splitting was the infant's way of protecting an internalized good object from destruction and contamination by the accompanying bad object.

As the developing child accumulated good experiences, he or she was able to integrate good and bad aspects of the same object, recognizing them as aspects of a whole. In so doing, the child's self and object world became better integrated and defined. Klein saw this process as a developmental milestone, which she termed the depressive position.

Overall, Klein emphasized the importance of a person's inner reality, particularly internalized objects; like Freud, Klein based her theory on observations of patients (in this instance, children in play therapy). She felt that successful adaptation to external reality depended upon a previous mastery of the inner world of conflictual object relationships. While few theorists agree with her complex

formulations concerning infant mental life, her emphases on the inner world of objects and the process of splitting formed an important stepping-stone for later theorists, such as Fairbairn, Winnicott and Kernberg.

Sigmund Freud (1926) appeared to acknowledge the importance of objects in Inhibitions, Symptoms and Anxiety through his descriptions of perceived threats to the ego, such as the fear of losing an object, fear of losing the love of an object, castration anxiety, and superego anxiety. However, he never described in detail the internalized object or its structural role.

Fairbairn (1952) was the first to create a truly object-relational theory. Discarding drive theory, Fairbairn believed that the goal of libidinal strivings was to further object relatedness rather than to obtain gratification. He went so far as to declare instinct theory an unnecessary construct, given the new understanding provided by his theory of object relations. His theory viewed impulses as merely the dynamic aspects of ego-structures, which were fundamentally object-relational in nature.

Contrary to later object-relational theorists, Fairbairn believed internalized object images were merely compensations for deficiencies in external relationships, which at the earliest stages

were focused around the maternal relationship. He saw the innate goal of being human as having full contact with real other human beings, starting with the mother, thus emphasizing the crucial role of early caretakers in determining future psychological health or psychopathology. When the early maternal relationship was insufficient to satisfy the inherent object-relational needs of the child, internal objects were formed in compensation. While optimally, given satisfying external experiences, there would be no need for internalized objects, Fairbairn acknowledged that deficiencies inevitably existed, thus initiating the cycle of internalized objects, corresponding splits in the ego, and residual oral fixations throughout adult life. The created internal object would automatically have a "bad" or frustrating aspect (as well as an enticing aspect); both of these fantasied part-objects, although unconscious, resulted in ego splits, causing intrapsychic conflict and psychopathology.

In Fairbairn's view, psychosexual stages merely described the development of object love and were important only in how they related to satisfactory real object relationships. Psychological growth consisted of replacing infantile dependence and a merger with the object, with mature object dependence based upon object

differentiation and respectful reciprocity.

Donald Winnicott, expanding upon the theme of psychological development in earliest life, explored the close bond between the mother and infant, and the crucial role it plays (1965). While Winnicott is viewed as an object relations theorist, his theory of infant psychological development introduced many of the concepts which were later addressed by theories of the self.

Winnicott discussed the requirements for a cohesive sense of self, which he believed was determined by the quality of the earliest mother-child bond. He felt that this earliest object-relationship provided an environment in which complex but essential processes in the infant's self could be completed. "Good enough mothering" provided a psychological matrix or "holding environment" which sheltered the infant from disabling anxiety and protected it from the psychological separateness which must eventually occur. The mother's support and nurturance promotes in the infant a permanent, built-in sense of belonging, relationship, and security at heart, which Winnicott called basic ego-relatedness.

The gradual process of object-relational development takes the young child through the period of the transitional object. Objects reminding the infant of the mother are used as symbolic

replacements of the mother, allowing the child to soothe and reassure him- or herself. Another crucial development occurs during this period, when the mother allows the child to play in her presence without her intrusion. In this manner, she promotes the child's ability to create his or her own personal space. The infant is thus able to internalize the maternal holding environment, or sense of personal safety and integrity, developing the capacity to be alone. Here, the mother is absent as an object but is present as an environment.

In Winnicott's schema, the third stage of dependence upon the mother is that of whole-object relatedness. Here, the infant's task is to discover the mother as an independent, autonomous object. For Winnicott, the infant is born with a vague, structural readiness to perceive and relate to need-fulfilling objects. Like Fairbairn, Winnicott sees that the infant creates internal objects in response to anxiety and helplessness when faced with premature awareness of his or her own separateness. These images are altered in a growth-promoting way when the mother continues to exist, regardless of the infant's fantasied destruction of her. In this way, the child discovers the external world, the realistic limits of his or her own power, and empathy for the other.

Margaret Mahler made an important contribution to object relations theory with her description of the earliest psychological development of infants — valuable because it integrated psychoanalytic theory with extensive child observation studies (Mahler, Pine & Bergman, 1975). She and her co-workers described the separation-individuation process of the infant, based upon their observations.

Her theory described and delineated the process in which the child becomes, psychologically speaking, an individual with a stable sense of identity and defined ego boundaries. The phases of this growth process are: autism (not to be confused with clinical autism in children and adults), from birth to two months of age; then symbiosis, lasting from two to six months of age; followed by the separation-individuation process, occurring at 6-24 months of age. Separation-individuation is composed of the following subphases: hatching, from 6-10 months; practicing, from 10-16 months; and rapprochement, from 16-24 months. Last, the child enters the open-ended stage known as developing object constancy, spanning particularly the period of 24-36 months of age, although this process continues to some degree throughout the entire lifespan.

This process tracks the infant's dawning awareness of

external objects and his or her separateness and object relationship. The first step begins with the dawning awareness of an external need-satisfying object in the second month; the infant behaves as though he or she and the mother were one. When the infant's mother is sufficiently present, the infant can associate his wishes and needs with her presence, as if wish and fulfillment were identical (Hamilton, 1988). This leads to the development of a feeling of power and omnipotence, which aids in organizing the child's internal world.

In the symbiotic phase, the dual presence of the mother and infant helps launch organizational and structuring processes. "The structures that derive from this double frame of reference represent a framework to which all experiences have to be related before they are clear whole representations in the ego of the self and the object world" (Lerner, 1991, p. 209, quoting from Mahler, Pine & Bergman, 1975, p. 57). Lerner commented upon the considerable evidence suggesting that inadequacy of the maternal holding behavior at this early stage can result in later problems with affective relatedness and interest in the environment, cognitive deficits, and problems in understanding the world in human terms. He further predicted that the Rorschachs of such adult persons would be strikingly devoid of

human content, populated instead by fantastic creations that were quite unhuman-like or would show vague, lifeless and amorphous images.

The start of the separation-individuation process, called hatching, is marked by a new attentiveness and alertness in the infant. This period of differentiation is characterized by efforts at exploration focused on the mother's face and body. The second subphase of separation-individuation is the practicing period, so named because the child appears to delight in exercising autonomous ego functions in the form of newly discovered skills. The child's motor functions allow independent movement away from the primary attachment figure, but he or she also makes sure to check back visually, especially at first. Mother is the "home base" to whom the child returns for emotional refueling.

The rapprochement subphase brings a new awareness to the child of its vulnerability and dependence on the mother. The young child may shadow her, alternating this with warding-off behavior that is more active and conflictual than the dashing-off of the practicing subphase (Hamilton). The child learns to say no, and does so often. Even the child's dependency has a demanding quality. The feeling of omnipotence crumbles and there may be temper tantrums.

The transitional object of previous subphases now is jealously guarded.

The resolution of this period comes when the child finds the optimal amount of distance from the mother that feels comfortable and sufficiently secure. Late in the subphase, the child is more emotionally modulated, with a new capacity for concern for another. He or she may begin to play with other children or engage in symbolic activities. The acquisition of language reestablishes the child's sense of control. The use of simple sentences, with a subject, verb, and object, demonstrates the increasing organization of the child's internal world as well as his cognitive competence. The child's playing activities with dolls and make-believe demonstrate the ability to take an "as-if" stance, without losing a sense of identity.

Mahler's last stage is that of object constancy, in which the child is able to maintain a stable internal image or concept of the mother and other objects, whether they are present or absent, gratifying or frustrating. This stage is accompanied by increasing individuality, accompanied by a stable sense of self across various situations and moods. This allows goal-oriented, sustained activity. As noted previously, this is an open-ended phase that continues

throughout life.

In any review of the foremost object relations theorists, Otto Kernberg (1966) is among the most influential. His theory, which links the development of object relations with instinctual drives and places it within a framework of a superordinate ego, describes how the internalization process results in the formation of psychic structures (which he conceptualizes as ego structures). According to Kernberg, object relationships create the structuralization of the internal world by the taking-in processes of introjection, identification, and ego identity formation. These processes build upon each other, becoming increasingly complex.

Introjection is the earliest, most primitive level of internalization and depends upon cognitive functions of perception and memory. An interaction with the environment is retained by an organized cluster of memory traces, which involve the image of an object, an image of the self in interaction with that object, and an affect coloring both the object-image and the self-image, provided by the drive present at the time of the interaction. Kernberg, like Fairbairn before him, believed that self- and object-representations do not exist independently, but rather in units, involving a self-representation, an object representation, and an accompanying

affect or drive (Kernberg, 1976).

Initially, there are many splits in these ego structures, primarily on good-bad dimensions. Splitting can also occur in a defensive way, to separate mutually incompatible or threatening self and object images. The affective coloring determines the valence of the introject (the self-object-affect unit), and, over time, introjects of similar valence fuse and coalesce. For instance, introjects of positive valence concerning libidinal instinctual gratification would coalesce and form the "good internal object." This contributes to the differentiation of self and object, defining ego boundaries. In this way, introjects grow in complexity.

A higher level process is that of identification. Kernberg conceptualizes the identification process to include drive derivatives, so that the internalized object-relational units involve an image of an object in a role relevant to the self, an image of the self in a reciprocal role clearly differentiated from the object, and an associated affective tone. This process becomes especially developed in the second year of life. As the child matures, identification becomes increasingly selective, and in fact continues throughout adulthood. "Throughout life, identification is a way to remain open to other people and allow them to influence us and help

us change" (Hamilton, 1988).

The formation of ego identity is the highest level in the internalization processes, because it is under the synthetic function of the ego. "...Identity implies revision, exclusion, generalization, and integration of the products of previous internalizations, and these are a series of structure-forming processes that are oriented as much toward the future as they are toward the past" (Shafer, 1973, p. 40).

Ego identity involves the consolidation of self and object images that provide a sense of continuity of self, a consistent conception of the "world of objects," and a sense of consistency in one's own interpersonal interactions. Drives exert less of a disruptive influence, instead being consciously directed in adaptive ways to realistic goals.

Object relations theory was well-established when a new theoretical orientation began to attract attention: that of Kohut's theory of Self Psychology. The theory evolved and changed rather dramatically during his lifespan. His early conceptualization proposed a two-factor theory in which a self psychology complemented traditional psychoanalytic theory. "Broadly speaking, Kohut's main theoretical departure from traditional theory is to

posit a separate line of development independent of and prior to psychosexual and ego development" (Eagle, P. 35, 1984). This details the process whereby a cohesive sense of self is created, through the joint processes of mirroring and idealization. This allows the child to transform his initial archaic grandiosity and exhibitionism into "healthy narcissism." This includes having a cohesive self, which is not vulnerable to fragmentation from disappointments and slights; having good regulation of self-esteem; and having ambitions, values, and ideals.

Kohut described how, early in his or her development, the child relates to others not as if they were fully separate and autonomous, but almost as if they were an extension of the child. Kohut's term for the child's experience of these objects is "selfobjects," which are relied upon by the child for psychological functions such as regulating positive self esteem, maintaining self cohesion, and managing tension.

In normal development, the child gradually develops the inner resources to carry out these psychological functions autonomously. However, Kohut theorized that, due to failures in parental responsiveness (i.e., to mirror the child's grandiosity and to provide a model for idealization), the child sometimes continues to rely on

self-objects, and remains vulnerable to poor self-esteem and fragmentation.

Initially, Kohut (1971) conceptualized the self as part of the ego. The self psychology applied to early development, and traditional drive-conflict theory addressed later psychosexual development; difficulties arising during that later period would be reflected in oedipal conflicts later in life.

However, by 1977, he believed that the self was a superordinate structure with its own drives and defenses. Thus, all drives became secondary to, and arose out of, the push of the self to maintain cohesion and positive self esteem.

Therapy goals and approaches for addressing issues related to faulty self structure were significantly altered as well. The process involved allowing the patient to use the therapist as a selfobject to shore up his own fragile and incompletely developed self structure. Then, through the process of transmuting internalizations, the patient incorporated those new abilities into his own self structure, developing idealized goals and healthy self-esteem in the process.

Many theorists and clinicians, while appreciating the new attention to issues of the self, had difficulty with Kohut's later

theory, which negated the utility of drive theory, the conflict model, and oedipal issues. Object relations issues were given some acknowledgement by Kohut, but in a drastically altered form from what, for example, Kernberg would describe. However, theorists also recognized a need to pay attention to issues of the self — such as self esteem, identity, and poor or vulnerable self boundaries — based on their own clinical experiences. Referring to Mahler's work as well as his own writings on object relations, Masterson commented, "Although acknowledgement was given to the self tangentially in this theory of separation-individuation, the perspective emphasized object relations, not the self. The self seemed to tag along just for the sake of completion" (1985, p. 4).

With increasing awareness and interest in object relational functioning came the wish to apply it more directly in treatment decisions. This required that the clinician be able to measure and track object relational functioning in patients. Clinicians and researchers began to search for ways to measure these important psychological constructs. The Rorschach Test was found to be particularly revealing of object representations, through the rich oppportunity the test provided for the projection of internal images onto the ambiguous inkblots.

Human Content, Object Representations and the Rorschach

The presence and quality of human content in Rorschach responses is widely acknowledged to have object relational significance. "There is reason to believe that a person's fund of internalized images of others, that is, of human "object representations," and the feelings tied up in these images, bear the imprint of his formative interpersonal history, and reveal something of his ingrained relationship predispositions. if we assume that a person's Rorschach images comprise a somewhat representative sample of internalized objects, then they have much to tell us about the person's internalized sense of participation in or alienation from his social milieu, as well as his preferences and expectations regarding the composition of that milieu" (p. 18, Mayman, 1967). Mayman has emphasized that a qualitative examination of human content for indications of warmth, reciprocity and a high degree of differentiation in human content is particularly revealing of the subject's object relational world.

Ames' finding that human content increases gradually during the early developmental years to the age of 10 (at which point it plateaus) is consistent with the developmental schema of object

relations theory (1971; Exner, 1986) Exner noted that the absence of human content is unusual in a Rorschach protocol. "The absence of human content appears to signal a marked lack of interest in and/or detachment from people which, except for the very young child, probably has some psychopathological features, and will almost always indicate problems in identity and/or self-image. Lower than average frequencies of human content are more common among subjects who do not appear to identify closely with typical social values." (p. 401). This finding was particularly true of convicted criminals, both adult and adolescent. However, schizophrenics were noted to have a similar number of human responses on the Rorschach as did a nonpatient norming sample.

Exner also stated that the ratio of pure H responses to other types of human content appeared significant, with whole human content indicating that the social views and interests were based on real experiences (rather than fantasies), regardless of whether the experiences were positive or negative. The ratio of whole human content was noted to increase with age and with the lack of psychopathology. Human detail responses are thought to indicate a defensive cognitive constriction or compulsiveness (Beck, 1945; Klopfer, 1954; Molish, 1967). Nonpatient adult Rorschach records

normally contain more than three whole human responses for every human detail response. Little research has been done concerning the significance of a human detail involving a face compared to other human parts. This situation is likely due to the fact that most scoring systems do not score directly for human face, thus blurring the distinction.

There have been numerous efforts in recent years to develop object relational scales. Two research groups have been particularly influential: that of Mayman and Urist at the University of Michigan (Krohn & Mayman, 1974; Urist, 1977), and Blatt and his colleagues at Yale (Blatt & Lerner, 1983; Blatt, Brenneis, Schimek, & Glick, 1976). Mayman (1967) recommended asking the following types of questions regarding Rorschach content to describe object relational functioning: what is the qualitative "world" created by the percept; what objects fill that world; what type of action or interaction is preferred by those objects; what is the psychosexual level of the images created; and what type of emotional content is expressed.

Urist, a student of Mayman, designed the Mutuality of Autonomy Scale (MOA), which examines qualitative dimensions of interactions in Rorschach percepts between humans, animals or

objects. Each interaction is rated on a single, seven-point scale, on a continuum ranging from mutual, empathic relatedness to malevolent engulfment and destruction. The average score is thought to represent the person's usual quality of interpersonal relatedness. The MOA scores have been found to correlate with independent ratings by clinical staff regarding interpersonal functioning of patients (1977) and with psychopathological severity according to symptom checklists and DSM-III (1980) diagnoses (Harder, et. al., 1984). Kavanagh found no change in mean or single best or worst MOA scores before and after treatment (1985). An advantage of the scale is its use of all Rorschach responses showing interactions (including those for animal content or inanimate content), making it particularly useful in assessing children (Ryan, Avery, & Grolnick, 1985). A drawback is that the range of responses is obscured, as are different scores received on varying types of content within the same protocol.

A recent study using the MOA highlighted the importance of malevolent content (termed motivational valuation in the Burstein-Loucks scoring system) in terms of overall psychopathology and impaired reality testing (Blatt, Tuber & Auerback, 1990). MOA measures used were the mean score for all responses, the single

most disrupted score, and the single most adaptive score. "...The portrayal of at least one intensively malevolent and destructive interaction on the Rorschach is correlated primarily with measures of thought disorder and impaired reality testing, whereas not giving at least one mutual and benevolent interaction response is correlated with impaired capacity for social adaptation (e.g., inappropriate interpersonal behavior and unmodulated affect)" (p. 711). Blatt, et. al. further observed that this scale appeared to measure aspects of psychopathological symptoms and thought disorder more than object relations and interpersonal functioning. The more malevolent the mean MOA score, the more likely inaccurately perceived human content would be highly articulated. The study also found that the more malevolent the worst MOA score, the more disrupted would be the patient's reality testing, as seen in F+% (and with other Rorschach measures of thought disorder). Given these findings, the mean MOA score was seen as a reflection of investments in inappropriate interpersonal relationships; it did not provide much information regarding the capacity for constructive, adaptive interpersonal relationships.

A recent study used Blatt's Concept of the Object Scale to examine differences in the Rorschachs of neurotics, inpatient

borderlines, outpatient borderlines, and schizophrenics (Lerner & St. Peter, 1984). Schizophrenic patients produced the fewest human responses. Accurate and inaccurate human content were examined separately, a process that aided the differentiation of patient groups. "Response accuracy appears to be a central dimension for distinguishing outpatients from inpatients, and, coupled with an assessment of degree of differentiation, discriminates between groups along a continuum of psychopathology" (p. 348). The greater the psychopathology, the less accurate the human content that was perceived. One result of the study was that inpatient borderlines were found to perceive more inaccurate human detail than outpatient borderlines; surprisingly, this human content was highly articulated. In terms of the emotional tone of the human content, inpatient borderlines tended to see more malevolent accurate human content than the other groups. One objection which can be raised about this and similar studies involves their patient grouping of "neurotics." This could potentially lump together extremely diverse groups, obscuring important characteristics.

On Blatt's Concept of the Object Scale, Rorschach human content is scored for the degree of differentiation, articulation and integration (including the feeling tone or expectation inherent in the

percept), form level, and the degree of intentionality of the motivation or action. Differentiation addresses the question of whether human content is quasi-human, human detail, or whole human, while articulation assesses the degree and type of human attributes in the percept. Integration looks at the intentionality of the action, the integration of the object and the action, and the activity/passivity dimension of that action.

Note that one problem with this scoring approach is the failure to provide object relational scoring for animals engaged in typically human-like interactions, such as "two bears dancing" (a common response on one card). This is a glaring omission, given that Ames et. al. (1971) found that about half of children's responses and slightly less than half of adolescents' responses are of animals, and Beck et. al. (1961) found that about 45% of adult responses included animal content (Exner, 1986). Children are especially likely to use animals instead of people in an interactional sense; such revealing information would be lost in this system.

One longitudinal study of 20 years demonstrated that subjects' Rorschachs showed an increase in well-differentiated, articulated and integrated human images accompanied by more constructive and positive human interactions, moving up the developmental continuum of scores over time (Blatt, Brenneis,

Schimek & Glick, 1976). They also reported that responses given by seriously disturbed people differed significantly from those given by normals. The disturbed group showed proportionately more human responses which were quasi-human, distorted, passive, incongruent, and malevolent. An interesting finding of this study, which has been replicated (Ritzler, Zambianco, Harder & Kaskey, 1980), is that moderately disturbed patients gave developmentally higher (more articulated) responses to malevolent human content that was inaccurately perceived; more accurate responses were rated as developmentally lower (more vague and passive), although benevolent. This finding held for all but the most seriously disturbed patients, in which the human percepts were less articulated and accurate for both benevolent and malevolent responses.

Blatt and Lerner (1983) have applied the scale to the Rorschachs of patients representing different diagnostic groups; they found unique patterns of object relational functioning in each diagnostic category which were congruent with clinical and theoretical expectations. Evidence also exists that Rorschach indicators of object representations parallel changes observed in treatment (Lerner, 1986; Kavanagh, 1985).

There is much that links human movement to ideational potential and the ability to delay responses or impulses. Human movement responses also serve as an expression of fantasy (Mayman, 1977) and of self-expression (Schachtel, 1950); the determination of what the figure in the imagery represents can be quite important for understanding the significance of the response. Finally, the human movement response reveals information about the person's capacity for empathy. This is particularly seen in the quality of the movement responses, more than in the absolute number (Mayman). An example of this is the finding that seriously disturbed patients, when they do provide human responses which have benevolent human content, often describe those in vague terms, while malevolent responses may be much more elaborated (Blatt, 1983; Lerner, 1986).

Exner stated that the more detailed meaning of the response needs to be fleshed out by noting other qualities of the movement response, such as whether it portrays something real or unreal, single or multiple, aggressive or competitive, active or passive. Such detailed scoring is included in some of the object relational scoring (Blatt, 1976; Mayman, 1967), and is also included in the Interpersonal Expectations scoring section of the Burstein-Loucks

system (1989).

Concerns about the above studies relate to the scoring inconsistencies and confusion that exist in several areas in other Rorschach scoring systems. The Social Appropriateness scoring is not given for all percepts, despite the fact that all responses, even involving only color, shading or black and white aspects, can be consensually validated. As an example, on card IX — a color card — responses such as fireworks or flowers are not uncommon despite the fact that those responses could be justified only on the basis of the color aspect of the card. Those responses would escape a rating for the degree of consensual validation present in other systems (and perhaps those are some of the responses in which this information is most needed, as color is thought to be more revealing of emotionality).

The interpersonal expectations scoring category in the Burstein-Loucks system provides detailed scoring for human content. Human articulation provides four levels, ranging from a vague human content to a full social role. Motivational articulation, scored when human movement or emotion is present, ranges from vague allusions to human activity to human activity in a complex situational context. Finally, motivational quality, whether

explicitly or implicitly present, is assessed as benevolent, neutral, or malevolent.

The Relationship Between Social Appropriateness and Ego Strength on the Rorschach

Social Appropriateness (called form quality in other scoring systems) is conceptualized as reflecting the extent to which a response is consensually validated and appropriate. While other scoring systems believe the measure reflects perceptual accuracy, that aspect of the response is assessed in the Burstein-Loucks system by another measure. The Burstein-Loucks system assesses all responses for Social Appropriateness, instead of only those involving form, in contrast to other scoring approaches.

A Rorschach response can be viewed as the product of external perceptions interacting with the subject's inner needs and fantasies (Meyer and Caruth, 1970). Differences in the appropriateness from one response to another provides information about areas of stimuli which the subject may find disturbing. Social Appropriateness reveals much about the success with which a subject uses a particular form of expression (whether form, color, shading or

imagined movement), and whether the percept is appropriate to the blot and to the testing situation. Beck's form quality tables are the basis for scoring Social Appropriateness. While there have been some differences detected between Beck's tables and those used by Exner's Comprehensive Scoring system, the differences are relatively minor (Kinder et. al., 1982).

An important use of the Rorschach is as an indicator of a person's overall ego strength, through the measure of Social Appropriateness or form quality (Beck, 1967). "Form quality describes the individual's ability to operate conventionally and realistically in the world, a sort of conflict-free ego function" (p. 392, Erdberg, 1990). Developmentally, this ability emerges fairly early in life and is reflected on the Rorschach responses of children. Exner and Weiner (1982) found the form quality of five-year-olds to be very similar to that of 16-year-olds and adults.

Reality testing and the ability to understand and respond to a situation in an appropriate manner are important aspects of overall ego strength, although not the only aspects. ". . . The degree to which the subject is attentive to, or departs from, the "reality" represented in the blots can therefore be taken as a measure of the subject's ability to deal with, and his respect for, reality in general.

In this general sense, it becomes a measure of ego strength, or at least the central component of reality testing. Accurate form perception is a necessary, if not sufficient, characteristic of a strong and mature ego" (p. 160, Korchin & Larson, 1977).

Frank noted there was good support for Beck's hypothesis that form quality was related to ego strength (1979). While form quality didn't correlate with Barron's Ego Strength Scale, it did correlate with the subject's ability to tolerate and respond appropriately to realistic stresses. Subjects with higher form quality tolerated sensory deprivation situations better than those with lower form quality (Goldberger, 1961). Overall, Frank thought form quality reflected a person's capacity to function well in the world.

Form quality has been repeatedly shown to discriminate schizophrenics from normals (Weiner, 1960; Exner, 1986; Beck, 1938; Rickers-Ovsiankina, 1938). The mean form quality for responses involving any form was about 80%, whereas the mean form quality for schizophrenics was 53%.

A more difficult differentiation involves distinguishing different diagnostic groups among inpatients. Harder and Ritzler found that Beck's form quality measure failed to distinguish psychotics from non-psychotic inpatients, whereas form quality

scorings that had finer gradations (such as Mayman's six-level form quality scoring) could make this distinction (1979). They concluded that higher form quality was related to the subject's ability to relate effectively to others, which indicated a better prognosis.

Korchin and Larson viewed form quality as an index of ego functioning, as seen in the subject's ability to form hypotheses and to test, critically evaluate and communicate them while appropriately addressing reality constraints. This capacity requires that the subject successfully delay impulses and block the intrusion of unconscious and emotional impulses. Poor form quality may be a function of poorly modulated drives or defensive maneuvers against conflictual impulses, seen in impulsivity, avoidance or denial.

Subjects vary in their willingness to be creative and personally expressive in their Rorschach responses. Some people are able to maintain a flexibility in their ego control that allows regression in the service of creativity and emotional expression, while others need to maintain much tighter intellectual control. While this presentation appears appropriate on superficial examination, it suggests an underlying ego weakness that depends on rigid conformity. A third group cannot refrain from giving drive-laden responses, or, in choosing to express themselves, do so in an

inappropriate manner; in either case, Social Appropriateness will likely suffer.

Form quality in a Rorschach response demonstrates the success and effectiveness of a person's cognitive and defensive style. Some people relax stringent standards of reality testing willingly in the service of creativity, while others ease up on reality testing because of ego weakness and the press of needs and wishes. Still others rigidly resist any relaxation of standards for fear of losing control.

Schachtel (1966) and Mayman (1970) take the view that form quality provides a reliable sample of the attitude a person takes to his or her object world. Mayman created a more articulated form level scoring system involving six levels. He interpreted his form level categories as reflecting qualitatively distinct modes of reality testing or appropriateness, ranging from reality adherence to reality abrogation. His form level scores involved excellent responses, ordinary but acceptable responses, minimally acceptable responses, vague responses, minimally unacceptable responses, spoiled responses, and totally arbitrary responses. Scores on his scoring system have been successfully related to several measures of adaptive capacity and ego strength, including being a main

component of Holt's defense effectiveness and adaptive regression measures. By close inspection of variations in form quality, Mayman believed one can determine the range, general level, and flaws of a person's capacity to test reality and function adaptively, to show where the ego is strong, flexible, brittle or weak. Form level scores using his system have been shown to correlate significantly with levels of psychosexual development, anxiety tolerance, ego strength, motivation, and quality of interpersonal relationships.

Rorschach's Test

The Rorschach ink blot test was introduced by the Swiss psychiatrist Hermann Rorschach in 1921. His goal for the test was understanding how a person experiences both internal and external reality. He believed that a person's perceptual responses to the ink blot provided clues to their basic modes of psychological functioning when viewed in the framework of a systematic orientation toward the test (Rickers-Ovsiankina, 1977). "The Rorschach was viewed primarily as a perceptual test from which one attempted to infer tendencies toward behavioral responses that would indicate aspects of personality organization and function. For example, a tendency to

perceive either parts or the whole stimulus, or to perceive the stimuli accurately or inaccurately, or to respond to certain perceptual determinants of the stimuli (e.g., color, form, or shading), or the tendency to be interested in particular content (e.g., human or animal forms) reflected certain personality traits" (Blatt, 1986, p 344).

In a 1982 survey, the Rorschach test ranked as the fourth most frequently used psychological test (Lubin, 1984). Piotrowski, Sherry and Keller surveyed members of the Society of Personality Assessment, and found the Rorschach ranked as the second most frequently used psychodiagnostic test (1985). Although the Rorschach has been a durable test, its history has been anything but peaceful. Critics have accused the test of being unreliable and poorly validated, sampling irrelevant behavior in an artificial situation. The controversy stimulated Rorschach researchers to reexamine their approaches to the test, and to clarify what the test can reasonably be expected to do and what are its inappropriate uses.

A recent study compared the average reliability, stability and validity of the MMPI, WAIS-R, and Rorschach Inkblot Test in articles published in the Journal of Personality Assessment and the Journal

of Clinical Psychology between 1971 and 1980 (Parker, Hanson & Hunsley, 1988). The review study found that the reliability and stability of all three tests were approximately equivalent, and were at acceptable levels according to traditional psychometric standards (generally greater than 0.80). The Rorschach was found to be equally conceptually valid compared with the MMPI. Convergent validity estimates were found to be generally equivalent for the Rorschach and the MMPI; both of these were lower than for the WAIS-R. In keeping with Exner's views, the authors of the above study stated, "More than anything else, the issue is to take time and care to select a validated scale for the purpose at hand and to use that scale in a methodologically sound manner" (p. 373). Several researchers reviewing Rorschach studies have found that research guided by theory and/or prior investigations tended to support the Rorschach, while studies lacking an empirical or theoretical rationale often did not yield positive findings (Parker, 1983; Atkinson, Quarrington, Alp & Cyr, 1986).

Examining the criticism, Weiner (1977) has identified four approaches to Rorschach validation. One of the oldest methods involves the empirical sign approach, in which Rorschach "signs" were identified that might differentiate specific diagnostic groups

of patients. Weiner noted that this type of research was frequently characterized by differentiation of diagnostic groups for which there was little clinical need, such as differentiations between clearly schizophrenic and apparently normal subjects. He noted that the clinical need is instead to differentiate "subtle shades of schizophrenic and non-schizophrenic disturbance in emotionally troubled patients who are neither obviously schizophrenic nor apparently normal" (pp. 578-579). He further observed that there can be much variation within many diagnostic categories, such as level of functioning and chronicity in schizophrenia. Finally, he noted that much research was published based on a single comparison study, without regard for the shrinkage that will inevitably occur when a test score is utilized with samples other than the one from which it was initially derived. Taking into account these problems, as well as the limited reliability of diagnostic categories, critics were provided ample opportunities to conduct negative validity studies of Rorschach through the use of poorly conceptualized and executed research.

Weiner (1977) noted that scoring refinements are extremely important in clarifying the significance of particular scores. He gave the example of the whole response signifying different things

if it is vague or well articulated, of good or poor form quality, simple or complex. Thus, when all whole responses are lumped together, no meaningful results emerge; however, when whole responses are given more detailed scoring, it is noted that accurate, integrated whole responses correlate significantly with measured IQ and with problem solving efficiency (Blatt and Allison, 1963; Allison and Blatt, 1964; Marsden, 1970). Similar scoring issues have emerged with the human movement response. Weiner noted that poor form level has proven extremely robust in differentiating schizophrenic from non-schizophrenic subjects, despite all the problems involving the empirical sign approach.

A second approach to Rorschach validation involves combining Rorschach scores into clusters and configurations for increased power in making replicable and valid differentiations. One advantage of this approach is that scoring refinements in interrelated variables can be employed. However, a recurrent problem with this research approach involved contamination of the independent and dependent variables, such as a situation in which test scores being evaluated may have played a role in the determination of the subject's diagnosis. Also, continuing problems existed with the use of inappropriate or unreliably categorized

criterion groups. True replication studies were rare, and sample sizes were often small.

A third approach was the global impression approach, in which the Rorschach was used as an aid in making clinical judgements, along with many other bits of clinical information. While experienced Rorschach examiners may be able to employ the Rorschach usefully in this manner, the results are significantly influenced by the examiner's level of training and experience. Studies taking this approach do not differentiate the cause of negative findings, whether due to the instrument or the deficiencies of the examiner.

Weiner noted that a problem common to much Rorschach validation work was the attempt to use the Rorschach to predict behavior inappropriately. He emphasized that the Rorschach is a tool for appraising personality processes, and that behavior results from a complex interaction between these processes and numerous uncontrolled and unmeasured situational factors. Thus, he emphasized that the Rorschach should not be expected to predict behavior except in situations where personality factors are known to account for the behavior predicted and where the influence of unmeasured situational factors is minimal. For example, the number

of Rorschach responses in a person's protocol appears to be a fairly good predictor of the ability of that person to engage effectively in verbal psychotherapy (Endicott and Endicott, 1963, 1964). Weiner stated, "Negative studies of Rorschach validity can be generated almost at will by attempting to predict broad and complex behavioral criteria of this kind, but the results of such studies have negligible bearing on the validity of the Rorschach for measuring personality processes" (1977, p. 594).

An increasingly important approach now being used with the Rorschach involves a conceptual approach, in which a theoretical formulation provides the linkage between Rorschach data and the condition being evaluated or the behavior being predicted. This is successful only to the extent that the Rorschach measures being examined assess relevant personality factors that are responsible for a substantial part of the condition or behavior. An example of this is impaired reality testing, which is one of the defining characteristics of schizophrenia. Inaccurate perceptual functioning is reflected in the Rorschach in the form of poor form level (Bellak, 1969; Weiner, 1966). This provides a construct validation study, in which a positive outcome simultaneously validates both the theoretical formulation and the Rorschach test. As previously

indicated, this is an increasingly widely used approach to Rorschach research. Examples include the Holt Primary Process Scoring (1966), Klopfer's (1951) Rorschach Prognostic Rating Scale and Blatt's (1976) Concept of the Object Scale.

The Rorschach Response Process

Rorschach responses are formed through an associational multi-step process in which memory traces are integrated with sensations created by the ink blot (Exner, 1986). The first step involves a visual scanning of the ink blot, with subsequent encoding of the stimulus field. The next step involves a classification of the stimulus and/or its parts, using information from memory to classify or misidentify aspects of the ink blot. Potential responses are rank ordered, and answers that have a low ranking are discarded. Other responses are discarded through censorship. "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 [response] sets about the test and value judgement concerning the acceptability of answers" (p. 42). However, this censorship is not absolute, and

other factors may override the ranking and censoring processes. In particular, personality characteristics that influence a person's coping, problem solving, and decision making come into play.

While the different ink blots are clearly not equivalent stimuli and differ in complexity and in the type of responses they are likely to generate, a working hypothesis for the Rorschach is that people do have preferred response styles that will be expressed in the majority of their responses, and that these styles will be consistently evident in repeated testings (Exner). The stability of scores over time has been carefully studied, and in adults most scores are quite stable, while a few others, such as shading responses, likely reflect more short-term psychological states than enduring traits. The last step in the process of formulating a Rorschach response is strongly influenced by both personality traits and psychological state, with the final response chosen to reflect and accommodate needs and motivations.

Rorschach Scoring Approaches

Scoring systems access five basic dimensions of the response: location, organizational activity, determinants, content, and

qualitative observations (Burstein, 1989). Blatt (1986) has noted that as the well-established empirical-perceptual orientation to the Rorschach has approached a high level of refinement and consolidation, a newly emerging orientation has been increasingly influential in understanding the Rorschach, based on psychological theory and cognitive processes. Rather than emphasizing the role of perceptual processes as predictors of behavior, this new approach has focused on how each individual constructs meaning and reality out of his experiences, and on the identification of each individual's unique tendencies in that regard. "Although perception and representation are clearly interrelated in complex ways, representation and cognitive construction go beyond perception. Modes of representation indicate how perceptual experiences are organized into cognitive schemes that transcend momentary experiences. These cognitive schemes express the basic structures through which individuals organize their life" (p. 345). Thus the Rorschach presents the individual with ambiguity and allows the tester to observe and quantify how a subject constructs meaning from that ambiguity. In this usage, the Rorschach becomes an experimental procedure in which the relationship between cognitive constructions or mental representations and the personality

organization is under examination. Exemplifying this approach are the various scoring systems reflecting object representations (Mayman, 1970; Blatt et al, 1976).

Each scoring system has tended to emphasize certain scoring aspects over others. At the coding level, Beck's (1967) behavioral training emerged in his insistence on normative and validational backing for the various scoring elements. Klopfer's (1942) phenomenological background allowed examiners greater leeway in using their own experience for reference and for coding the same material. Rapaport (1968), Hertz (1970) and Piotrowski (1957) used methodological approaches combining aspects of both Beck and Klopfer. At the interpretive level, Rapaport's extensive utilization of psychoanalytic concepts separates his work from the less theory-based interpretive strategies of the other four systems. In 1974, Exner developed the Comprehensive System to provide the fragmented Rorschach community with a common methodology and language. He reviewed the literature contributing to all five major systems and undertook new research to form his new system.

The Burstein-Loucks Scoring System

The Burstein-Loucks scoring system (1989) is another approach to Rorschach scoring, arising out of noted inconsistencies and contradictions in existent scoring systems (1978, 1989). Besides addressing several problematic areas, this system has also incorporated some of the newer scoring approaches in its assessment of interpersonal expectations, cognitive complexity, drive expression and defense effectiveness.

In his review of Rorschach's test, Burstein (1978) identified many problems with current Rorschach scoring systems that interfere with the test's ability to highlight cognitive functioning. Burstein faults other scoring systems on these points: 1) lack of a clear theoretical matrix; 2) an internally inconsistent approach to understanding a response, so that justifications (often called determinants) are confused with more imaginal qualities ascribed to the blot; 3) a confusing approach to location scoring that intermingles scoring for size of the area chosen with the frequency of the percept and with other factors; and 4) inadequate elaboration of perceptual-cognitive characteristics of the responses. The Burstein-Loucks scoring system attempts to address and correct

those problems.

Much of the Rorschach's strength lies in its ability to illustrate constructs of psychological functioning, which by definition are influenced by psychological theory. The description and interpretation of a Rorschach builds upon the foundation provided by the scoring system. Any system inherently reflects a theoretical bias in its selection of what data to score and how to score them; the scoring approach further provides an opportunity to score in a manner which is theoretically revealing of underlying psychological constructs. The Burstein-Loucks system is based on psychoanalytic theory, particularly Kernberg's view of object relations theory. This system's scoring categories will be reviewed here, along with their conceptual and theoretical relevance.

Cognitive Complexity

Organizational activity is scored separately, under the heading of cognitive complexity. This eliminates the misleading implication in some scoring systems that whole responses are necessarily complex, when some are quite straightforward (i.e., "bat"). Cognitive complexity categories are: integrated (seeing distinct

things in relationships), articulated (seeing an object with component parts), arbitrary (reflecting spoiled or poor integration of different things), simple (neither integrated nor articulated response), and diffuse (inherently shapeless object).

Social Appropriateness

Another fundamental and extremely important score addresses the "goodness of fit" between the blot and the percept. This score is commonly called form quality in other scoring systems; issues of clarity and precision are also included in the score determination of these systems. Because the Burstein-Loucks scoring system addresses those issues in the cognitive complexity scoring section, this scoring dimension is referred to as "Social Appropriateness," because it refers to "the social appropriateness of a specific context to a specific area" (Burstein, p. 24). It should also be noted that the Burstein-Loucks system scores all responses for Social Appropriateness, unlike other scoring systems that render form quality scoring only for responses involving form.

The Burstein-Loucks scoring system uses Beck's (1961) system for determining plus or minus form quality. Form quality is

widely viewed as an indicator of the adequacy of reality testing. Beck believed that this necessarily also involved social aspects. "Insofar as the patient sees the form which healthy persons see, he perceives as they do. Extended into the function of judgement, the testee's judgement is like that of healthy persons. A further inference is that his values are consistent with those of people about him, of his society" (Korchin and Larson, 1977). Beck believed the categorization of good versus poor form should be based upon empirical results. His form quality table is based upon a normal representative sample of the community, with the requirement that a response must be seen by three or more persons in the normative sample to be scored F plus. This table was later expanded, and it now contains 5,226 total responses that are classified as either plus or minus in form quality.

A study by Kinder et. al. (1982) comparing the Exner and Beck form quality readings noted that the Exner table contained 2,834 entries. This study compared the scores generated by each system on the same set of Rorschach protocols. The study found a significant difference between the scoring systems in the percentage of good form quality for responses using determinants other than form. Specifically, they noted that the Beck method

yielded a significantly lower level of form quality compared to the Exner system. In attempting to account for this, it was hypothesized that the Beck table might be slightly more biased toward minus form quality responses, and that the tables were derived somewhat differently. This information needs to be taken into account when examining research findings.

Interpersonal Expectations

The Burstein-Loucks scoring system for the Rorschach has incorporated many of the elements in Blatt's Concept of the Object Scale into its scoring (Burstein, 1989). The Burstein-Loucks scoring dimension designed to assess the subject's level of internal object representation is the Interpersonal Expectation category, which examines the experiential quality of the person's internal world. This dimension, scored on responses with human content, rates the degree of human articulation (ranging from vague human content to a full social role); it also rates motivational articulation, which is measured when human emotion or movement are scored. The scoring on this ranges from vague allusions to human activity to human or human-like interactions in a complex situational context. A third

scoring category, called motivational valuation, examines the quality of the expectations anticipated from others or the overall affective tone of the response. Each response is given a score of benevolent, neutral, or malevolent, which is further scored as either explicit (if human emotion or motivation is scored) or implicit.

Statement of the Problem

Given the prominence and clinical utility of object relations theory, instruments for assessing object relational functioning become increasingly important. The Rorschach has been demonstrated to be quite useful in this regard, particularly in measures of Social Appropriateness, Cognitive Complexity, and Human content. However, existing Rorschach scoring systems have inherent problems, such as internally inconsistent scoring for Determinants and Imaginal Aspects (which are combined in other systems), a lack of scores clearly designed to measure psychologically relevant constructs (such as object relations and drive expression), a failure to score Social Appropriateness for all responses, a failure to score animal content with human-like interactions for object relational significance, a lack of

motivational valuation scoring for all responses, inadequate scoring for perceptual-cognitive characteristics, and an intermingling of location scoring with frequency scoring of that part of the blot. The Burstein-Loucks system is a comprehensive system that is theoretically based. The Interpersonal Expectation scoring section provides detailed scoring for human content. Additional information relevant to object relational constructs is found in the Cognitive Complexity scoring and the Social Appropriateness scoring. Research using these recently designed measures will assess their construct validity as well as the utility of the measures in assessing object relational functioning.

Persons who are lower in object relational development are more likely to give Rorschach responses containing malevolent images; these ranges are often accompanied by greater articulation. Their responses are more likely to be spoiled (diffuse or arbitrary), and to have a lower proportion of human content. Human content is more likely to be fragmented (as seen in human detail) instead of occurring as whole human images. It is hypothesized that subjects lower in ego strength would show a concomitant decrease in object relational functioning, due to the fact that object relational integrity is one aspect of ego strength. It is also hypothesized that

the Cornell Index of psychopathological symptoms would reflect both ego strength and object relational functioning.

Diffuse answers can be viewed as a reflection of defensive maneuvers or poorly articulated internal images. A lack of interest in human activity accompanies low object relational capacity and poorly developed empathic ability. Following treatment, patients have shown increases in human content (Pruitt & Spilka, 1964), increases in well-articulated and benevolent human content, and in whole humans (Kavanagh; Applebaum, 1977). Little has been reported about the difference between human face and other human detail, although it is intuitively clear that a Rorschach image of a human face shows more interpersonal interest than the image of, say, a foot. It is believed by this writer that human face is similar to a whole human developmentally, and when combined, will help differentiate subjects with good and poor ego strength.

Can subjects who score high and low on a measure of general functioning (Social Appropriateness) be distinguished by object relational measures examining vague and spoiled responses, proportion of human responses, type of human content, level of articulation of human content, and anticipatory tone of human content and overall responses? These are the questions this study

seeks to answer.

Hypotheses

1. Persons lower in Social Appropriateness on Rorschach responses involving both form only responses and on those based on more than just form will have a higher proportion of Arbitrary and Diffuse responses than persons higher in Social Appropriateness.

2. Subjects lower in Social Appropriateness will show evidence of less interest and involvement with others, as manifested by a lower proportion of human responses than subjects higher in Social Appropriateness.

3. The proportion of Whole Human and Human Face content compared to other human content will be lower in subjects lower in Social Appropriateness.

4. Subjects lower in Social Appropriateness will have a significantly lower proportion of highly Articulated Human responses, proportionally, than subjects higher in Social Appropriateness.

5. Subjects lower in Social Appropriateness will have a greater proportion of Malevolent highly Articulated responses than

subjects higher in Social Appropriateness.

6. Subjects lower in Social Appropriateness will have a higher proportion of Human responses that are scored Malevolent than subjects higher in Social Appropriateness.

7. Subjects lower in Social Appropriateness will have a higher proportion of responses that are scored Malevolent (Implicit or Explicit) than subjects higher in Social Appropriateness.

8. Subjects lower in Social Appropriateness will score higher on the Cornell Index, showing a greater number of psychopathological symptoms, than subjects higher in Social Appropriateness.

9. Subjects lower in Social Appropriateness can be differentiated from those higher in Social Appropriateness by a combination of the above measures, reflecting Interpersonal Expectations and Cornell scores.

CHAPTER III

METHOD

Subjects

The subject pool for the current study was recruited from the College Scholars and the Honors Programs in Chemistry at the University of Tennessee in Knoxville, TN, from the years 1984 to 1990, as part of a larger project studying characteristics of academically talented undergraduate students. These students were invited to participate in this research project initially by letter. This was followed up with a phone call to each College Scholar or Honors student, informing them of the nature of the study. Included in this explanation was the length of time their participation would require — two sessions of two to three hours' duration each, scheduled at their convenience. The subjects were notified that their repeat participation might be requested at a later time, but not more often than every two years, and that their participation was, as always, optional. No financial incentive was provided to the students.

Each student signed an informed consent for his or her participation. Feedback was offered to subjects at their request after the testing. Confidentiality of individual results and identity was guaranteed. A University of Tennessee application for permission to pursue research on human subjects was approved prior to testing. No subjects were younger than 18 years of age, and almost all were in their late teens and early 20s. No effort was made to balance the proportion of males and females, although the gender of the subject was noted for each Rorschach so that comparisons of differences related to sex could be determined. The data pool contained the Rorschachs of 212 subjects.

Instruments

The instruments were the Rorschach Inkblot test, scored by the Burstein-Loucks system, and the Cornell Index.

The Cornell Index is a 101-item pencil and paper self-report instrument which assesses the presence and extent of psychological and physical symptoms, including psychosomatic illness, anxiety, sleep disturbance, behavioral problems, and psychological distress. The total Cornell Score is the sum of endorsed items. In this study,

it is seen as reflecting psychological health in a general way. The cut-off level of 13 was used in instances when Cornell data needed to be grouped into high and low groups; this was one of two cutoff levels described in the manual; the other being a cut-off score of 23.

Rorschach scoring categories are: Location, Cognitive Complexity, Justifications, Imaginal Aspects, Social Appropriateness, Content, Interpersonal Expectations, Psychosexual Drive and Defense Effectiveness, and Perceptual-Cognitive Characteristics.

All responses are scored for Social Appropriateness, based on Beck's form quality tables published in Rorschach's Test (1961); scoring is plus or minus. This score indicates the "goodness of fit" between the response and the percept, reflecting whether the response is consensually validated. In contrast to other form quality scoring systems, Burstein and Loucks (1988) do not believe the score should be addressing issues of clarity, or frequency of occurrence of a particular response; those issues are addressed in other scoring categories in their system.

Beck designed his classification system to be able to discriminate between psychotic and healthy groups of subjects, based on the percentage of the plus scores for their responses. He

revised the tables on the basis of survey responses, collected from several hundred clinicians.

Responses are scored plus or minus by finding the response in the tables. If the response is not listed for that area, then the scorer finds the closest percept conceptually for that area of the blot, and scores accordingly.

There are two groups of responses for which Social Appropriateness is scored. Responses using form as the sole elaboration make up the category of the F responses. The other category involves the B responses, comprised of all other responses. These could have been justified on the basis of color, shading or black-white aspects of the blot; additionally, the subject might have given a response involving movement, emotion, texture or vista. For each class of responses (F and B), the percentage of responses in that category that have good Social Appropriateness is calculated, yielding the B+% and F+%.

Cognitive Complexity scoring reflects the organizational activity present in the percept. Scores are: Integrated (seeing distinct things in relationships), Articulated (seeing an object with component parts), Arbitrary (reflecting spoiled or poor integration of different things), Simple (neither integrated nor articulated

response), and Diffuse (inherently shapeless object).

Interpersonal Expectations are scored on responses with human content. The scoring category evaluates four components: one involving human percepts, two for percepts involving human movement or emotion, and one evaluating the emotional tone or ambience of non-human images. These variables are called Human Articulation, Motivational Articulation, Explicit Motivational Valuation, and Implicit Motivational Valuation.

Human Articulation (HA) scoring rates the degree of elaboration of human content. Scores range from one to four, with a score of one reflecting the presence of vague, unelaborated human content (such as "someone," or "they"). A score of two occurs when one clear attribute (such as age or sex) accompanies the human content. A score of three is given when more than one attribute accompanies the human content. A score of four indicates that the human content was given a specific identity or full social role (such as "a policeman," "my mother," "a vampire's teeth").

Motivational Articulation (MA) is scored when Human Movement or Human Emotion were scored, and provide additional information about that aspect of the response. A score of one is given for a vague reference to human activity, or to postural

movement or tension. A score of two is given for a clearly specified activity, or a human emotion or motivational state. A score of three occurs when a clear activity has motivational or emotional components, even when Human Emotion was not scored (as in "a crying face"). A score of four indicates human or human-like interactions in a specific context, or more complex, story-like actions.

While the Motivational Articulation score is part of the Interpersonal Expectations Category, this particular score was not used in the study being described.

Explicit Motivational Valuation is scored when Human Movement or Human Emotion were scored, and rates the motive, emotion or affect present in the image. The Benevolent score is given for positive or constructive fantasies. The Neutral score is given when the motive, affect or action is indefinite, neutral, or mixed. Malevolent Motivational Valuation is scored when the fantasy is negative, dangerous, death-related, or destructive.

Implicit Motivational Valuation is a final score in the Interpersonal Expectations category. It is scored for all responses not containing Human Movement or Human Emotion; and describes the quality of the non-interpersonal environment. Because these

judgements are unavoidably subjective, a table is provided in the manual, giving the rating for 200 content categories. The table is based upon the results of a survey by Friedlander (1984), in which college and technical students indicated their like or dislike for each content.

Implicit Motivational Valuation is given for images which are positive, constructive, gratifying, attractive or life-promoting. Implicit Neutral Valuation is given for images which are neutral, mixed or indeterminant. Implicit Malevolent scores are given for images which are negative, dangerous, predatory, destructive, depriving, ugly, distorted or pain-promoting.

In the study being described, Explicit and Implicit Motivational Valuation scores of Malevolent and Benevolent were combined in calculating three different measures.

A final category is that of Perceptual-Cognitive characteristics. This category contains many scorings, such as Affective Toning, Bizarre Content, Loss of Distance, Popular Response, Card Rejection, Incorporation of White Space, and Verbal Peculiarity. In this study, the score, Contradiction of Reality was involved in one measure. This score is given when an image combines odd parts to create a new organism which doesn't exist in

reality, or when parts are added or distorted. The score may be earned when an image violates logical spatial organization or is of a size or proportion not occurring naturally. It may also be scored when percepts are mixed inappropriately, when there are internal conceptual contradictions, or when an inapporpriate color is assigned to an image.

Rorschach protocols were independently double-scored, and any scoring discrepancies were examined and resolved. The summary sheet was completed and summary scores, such as F+% and B+% (described above), were calculated.

Procedure

The testing took place in two sessions at the University of Tennessee - Knoxville Department of Psychology (Austin Peay Building), each lasting approximately two hours. The first session consisted of the group testing, in which the pencil-and-paper tests that were part of the test battery were administered. At that time, a second individual testing session was scheduled to allow for administration of the Rorschach test. At the second session, an advanced clinical psychology graduate student individually

administered the Rorschach inkblot test to the subject. No other persons were present except the subject and the tester.

Data Analysis

Hypotheses were tested using discriminant function analysis or regression analysis, and t-tests or Mann-Whitney tests.

The independent or predictor measures in the discriminant analysis were:

1. Proportion of Arbitrary and Diffuse (MCRBDIF), defined as the sum of Arbitrary and Diffuse responses divided by the sum of total responses, eliminating arbitrary responses that were not accompanied by the Contradiction of Reality special scoring. Unless modified as described, this is often accompanied by a minus Social Appropriateness score, thus confounding the dependent and independent variables.

2. Proportion of human responses (MHUM), defined as the sum of human responses divided by the sum of total responses.

3. Ratio of human and human face to other human content (RHHF), defined as the sum of human whole and human face responses divided by the sum of all other human content for each subject.

4. Proportion of high Human Articulation (HIGHA), defined as the sum of HA3 and HA4 (highly articulated) human responses divided by the sum of human responses.

5. Proportion of highest articulated human content that are Malevolent (PMLH4), defined as the sum of Malevolent HA4 human responses divided by the sum of HA4 responses.

6. Proportion of Malevolent human (PMLVH), defined as the sum of Malevolent human responses divided by the sum of all human responses.

7. Proportion of Malevolent responses (RMPXP), defined as the sum of Implicit and Explicit Malevolent responses divided by the sum of total responses (irrespective of content category).

8. Cornell Index total, divided into a high group consisting of scores greater than 13, and a low group consisting of scores equal to or lower than 13.

The data were analyzed by using discriminant function analysis. The two groups being differentiated by the predictor measures were subjects with high levels of Social Appropriateness on both F+% and B+% and subjects with low levels of Social Appropriateness on F+% and B+%. This was accomplished by using high and low groups on the measure of Social Appropriateness

divided at the median, and also by using half a standard deviation above and below the mean to create more sharply defined high and low groups.

Additional analyses involved a comparison of the means on each measure in the higher and lower Social Appropriateness groups, using either a t-test or a Mann-Whitney test, depending upon whether the variable was normally distributed.

A final analysis involved a regression analysis using the sum of the B+% and F+% in the two groups as the dependent variable, and the values of the Interpersonal Expectation measures as independent variables.

CHAPTER IV

RESULTS

The initial subject group was 212 college students. Of this sample, 77 were selected for analysis by the following criteria: subjects who had fewer than 12 or more than 99 responses were omitted from the study, with the purpose of eliminating outliers. Form-only responses (F%) had to constitute a minimum of 10% of the total responses and a maximum of 90% (by definition, the same is true of the "B" responses, those involving other than only form).

The high and low groups for F+% and B+% were initially defined by whether they scored above or below the median score for the sample on that measure. Thus, the higher functioning subjects on Social Appropriateness scored above the median on both F+% and B+%, and the lower functioning subjects scored below the median on F+% and B+%. Subjects who had one score above the median and one score below the median were omitted from this study.

In a second discriminant function analysis using the method of polarities, the higher and lower functioning subjects were more restrictively defined, by being at least one-half standard deviation

above or below the mean for both F+% and B+%.

Descriptive statistics were obtained on the sample, and are provided in Table 1, on all measures.

Table 1: Descriptive Statistics

VARIABLES	MEAN	SD	RANGE	SKEW	DISTR.
F+%	66.082	19.131	77.780	-.161	not normal
B+%	67.054	16.841	81.820	-.619	neg skew
F+% & B+%	134.798	33.489	150.280	-.370	normal
Cornell	9.352	9.271	46.000	1.534	pos.skew
Arb & Diff Prop	.082	.071	.286	.762	not normal
Sum H	.301	.127	.622	.213	normal
H Malev %	.354	.233	1	1.023	normal
H & Hf	1.670	1.081	5.000	1.203	not normal
HA3 & HA4	.823	.179	.667	-.840	not normal
HA4 Malev Prop	.405	.342	1.000	.473	not normal
Prop Mal R	.348	.131	.676	.414	normal

Pearson product moment correlations were examined for predictor variables, to insure sufficient independence of variables and avoid multicollinearity. The variable reflecting the proportion of Malevolent responses was not included in the discriminant function analysis because it was highly correlated with the variable reflecting the proportion of malevolent human responses. See Table 2.

Table 2: Pearson Correlations between Variables.

1) P. Arb & Diffuse	2) P. Human	3) P. Malev. Human	4) P. Hum. & H. Face	5) P. HA3 & HA4	6) P. Mal. HA4	7) P. Malev Response	8) F+%	9) B+%	10) F+% & B+%	11) Cornell
1) 1	-.1101	-.1371	-.0200	-.0476	.0039	-.0813	-.0634	-.1246	-.0785	.0349
2)-.1101	1	.0764	.0673	.0107	.1025	.0933	-.1170	-.1303	-.1337	.0101
3)-.1371	.0764	1	-.0551	.2290	.6019*	.7117*	.0196	-.1613	-.0662	-.0934
4)-.0200	.0673	-.0551	1	.0178	.0321	-.1506	-.0603	-.1107	-.0900	-.1396
5)-.0476	.0107	.2290	.0178	1	-.0353	.0336	-.1061	-.1023	-.0147	-.0350
6) .0039	.1025	.6019*	.0321	-.0353	1	.5135*	.0833	-.1008	.0016	.0657
7)-.0813	.0933	.7117*	-.1506	.0336	.5135*	1	.-.0776	-.1736	-.0371	-.0293
8)-.0634	-.1170	.0196	-.0603	-.1061	.0833	.0776	1	.6859	-.9360	.0225
9)-.1246	-.1303	-.1613	-.1107	-.1023	-.1008	-.1736	.6859	1	.8981	.1319
10)-.0785	-.1337	-.0662	-.0900	-.0147	.0016	-.0371	.9360*	.8981*	1	.0774
11).0349	.0101	-.0934	-.1396	-.0350	.0657	-.0293	.0225	.1319	.0774	1

Starred indicated one-tailed significance at .001.

A stepwise discriminant analysis was performed on the two groups of subjects, those with high Social Appropriateness on both B+% and F+%, and those with low Social Appropriateness on B+% and F+%. Because of concern that the Cornell Index would be so strong a predictor as to overshadow the effects of Rorschach variables, the discriminant analysis was performed with and without the Cornell Index variable. Other predictor variables were: the porportion of Arbitrary and Diffuse responses, the sum of Human responses, the

proportion of Malevolent Human responses, the proportion of whole Human and Human Face within the Human responses, the proportion of highly articulated Human responses, and the proportion of Malevolent HA4 Human responses. There were 71 cases in the analysis.

Discriminant analysis allows one to establish which characteristics are important for distinguishing between two groups of subjects (Norusis, 1985). The process of discriminant analysis maximizes the ratio of between-group variability over within-group variance by assigning a discriminant weight or constant by each variable's relative weight, in a linear combination. This is then totalled to arrive at a discriminant score for each subject to obtain a group mean or "centroid" against which each subject within a group is compared. Wilks' lambda is the ratio of the within group sum of squares to the total sum of squares, indicating the proportion of the variance not explained by differences between the groups. It ranges from 0 to 1, with values close to 0 occurring when most of the total variability is due to differences between the means of the two groups. A stepwise variable selection process uses the minimization of Wilks' lambda at each step to select the variable that results in the smallest Wilks' lambda for the discriminant

function. Wilks' lambda provides a test of the null hypothesis that the population means are equal. "Small differences may be statistically significant but still not permit good discrimination among the groups" (p. 90).

Another statistic, the eigenvalue, is the ratio of between-group to within-group sums of squares, with larger eigenvalues reflecting "good" functions. A third statistic, Box's M, reflects a comparison of the group covariance matrices; a small probability would suggest that the covariance matrices are unequal (equal covariance matrices is an assumption of the discriminant function statistic).

Another way of examining the usefulness of the discriminant function is to examine the classification rate given the model developed. This will show the correct classifications and errors for each group, along with an overall classification rate when using the function. It is important, when evaluating this measure, to compare this to that which would be expected by chance alone.

The discriminant process, which involved 67 cases, was unable to enter any variables, a result which was unchanged regardless of whether the Cornell scores were included.

In order to more sharply define the two groups representing

high and low Social Appropriateness, a second stepwise discriminant analysis was performed, with the low group having Social Appropriateness one-half standard deviation below the mean on both B+% and F+%, and the high group having Social Appropriateness one-half standard deviation above the mean. One unfortunate effect of this was to further decrease the number of cases available for analysis. However, it was done to point to meaningful trends which might be further explored in another study using more subjects. The number of cases available were 31.

At the first step, the sum of Human responses was included in the function (Wilks' lambda = .86133; p = .0610). At step 2, the proportion of HA3 and HA4 Human responses was included (Wilks' lambda = .75452; p = .0392). At step 3, the proportion of Malevolent Human responses was included (Wilks' Lambda = .68911; p = .0390).

The results of the discriminant function analysis can be found in Table 3.

Table 3: Unstandardized Canonical Discriminant Function Coefficients using Hypothesized Variables for Subject Groups Selected by the Method of Polarities

Variable	Function 1
Proportion of Human Responses	6.541596
Proportion of Malevolent Human Responses	2.579555
Proportion of HA3 and HA4 Human Responses	-5.789225

Eigenvalue = .4512
Canonical correlation = .5576
Wilks' Lambda = .6891
Chi Square = 68.378; df = 3; p = .0388
Box's M = 5.0536; approx. F = 0.72227, df = 6, 3180.8; p = .6315

Table 4 gives the classification rate for the discriminant function.

Table 4: Group Prediction and Classification Results for Discriminant Function in the Extreme Groups (N = 31)

Social Appropriateness (Actual Group Membership)	No. of Cases	Pred. Grp Membership Extr. Low	Extr. High
Extreme Low Group	13	11 84.6%	2 15.4%%
Extreme High Group	18	7 38.9%	11 61.1%

In all, 71% of the grouped cases were classified correctly, using these three variables. Again, there was no difference in the results, whether the Cornell Index was or was not included in the model.

Other post-hoc investigations included t-tests, or, where appropriate, Mann Whitney tests for variables not normally distributed. These attempted to determine if there were significant differences between subjects with high and low Social Appropriateness in their scores for variables thought to reflect object relational functioning.

A Mann Whitney test on the proportion of Arbitrary and Diffuse responses indicated no significant difference between the high and low groups, with a $U = 183.0$ ($n = 43$, $p = .2988$).

The variable sum of Human responses was normally distributed, so a t-test was used, showing a t value of .96 ($df = 41$, $p = .713$), indicating no difference between the means.

The proportion of Malevolent Human responses was approximately normally distributed. A t-test showed a t value of -.20 ($df = 41$, $p = .843$), indicating no difference between the means.

The proportion of whole Human and Human Face was not normally distributed; a Mann Whitney test gave a $U = 191.0$ ($n = 41$, p

= .6734), showing no difference between the two groups.

The proportion of HA3 and HA4 Human responses was not normally distributed; a Mann Whitney test revealed a U = 181.5 (n = 43, p = .2714), indicating no difference between the means.

The proportion of Malevolent HA4 responses was not normally distributed; a Mann Whitney test gave a U of 146.5 (n = 40, p = .2117), showing no difference between the means.

The proportion of Malevolent responses was normally distributed. A t-test gave a t value = -.688 (df = 41, p = .501), showing no difference between the means.

The Cornell scores were not normally distributed. A Mann Whitney test gave a U = 205.0 (n = 43, p = .4414), showing no difference between the means.

On the more extremely defined groups of high and low Social Appropriateness, only the sum of Human responses showed significantly different means in post-hoc analyses, with t value = 2.35 (df = 26, p = .027).

Chi-Square analyses for all variables divided by high and low groups were non-significant.

The variable, sum of Human responses, which is the proportion of responses containing human content, is the single variable which

appears most useful in differentiating between subjects higher and lower in Social Appropriateness; however, this occurs in a direction opposite to that which was predicted (i.e., a higher number of human responses are found in the subject group scoring lower in Social Appropriateness). This variable is useful only in distinguishing the extremely high and the extremely low group on both B+% and F+%.

A regression analysis was attempted, to see if any of the Interpersonal Expectations measures could predict the sum of the two Social Appropriateness scores. This was attempted using Social Appropriateness divided at the mean, and also using Social Appropriateness divided one-half standard deviation above and below the mean, and then summing the two values for each subject. The procedure was unable to create a model, using either approach.

CHAPTER V

DISCUSSION

In this study, none of the hypotheses were supported in the initial analysis. When the high and low groups were more restrictively defined, three variables appeared useful in discriminating the two groups: the proportion of human responses, the proportion of highly articulated human content, and the proportion of responses with malevolent motivational valuation. Using these three variables, the discriminant function was able to correctly predict 71% of cases as belonging to either the very high or the very low group on Social Appropriateness. Remarkably, 81% of the lowest functioning subjects were correctly classified, a clinically significant finding indicating that of these relatively well-functioning subjects, those with the poorest reality testing were successfully identified using the Interpersonal Expectations measures.

Going through the findings on each hypothesis, the first hypothesis, predicting a greater proportion of Arbitrary and Diffuse responses in subjects with lower Social Appropriateness, was not

supported.

The second hypothesis, that subjects lower in Social Appropriateness will have proportionally less Human responses, was not supported. The results were opposite that predicted; subjects with higher Social Appropriateness had proportionally more human responses. This surprising finding will be discussed below.

The third hypothesis, that subjects lower in Social Appropriateness will show proportionally more whole Human and Human face responses within the HUman content category, was not supported.

The fourth hypothesis, that subjects lower in Social Appropriateness will have a lower proportion of highly articulated Human content (HA3 and HA4), was supported when the method of polarities was used.

The fifth hypothesis, that subjects lower in Social Appropriateness would show proportionally more highly articulated Human responses (HA4) which were malevolent, was not supported.

The sixth hypothesis, that subjects lower in Social Appropriateness would have a greater proportion of Human responses which were malevolent, was supported when the method of polarities was used.

The seventh hypothesis, that subjects lower in Social Appropriateness would have a greater proportion of malevolent responses overall, was not supported.

The eighth hypothesis, that subjects lower in Social Appropriateness would have higher scores on the Cornell Index, was not supported.

The ninth hypothesis, that subjects lower in Social Appropriateness could be differentiated from subjects higher in Social Appropriateness by a combination of Interpersonal Expectation measures, was supported when the method of polarities was used.

Overall, the study appears to demonstrate the utility of the discriminant analysis procedure with variables which alone would not have shown a significant difference in the two groups, but when combined, were useful in distinguishing higher subjects from lower ones on the Social Appropriateness measure. Interestingly, the two variables reflecting higher articulation and greater malevolent responses were useful, yet the measure which combined aspects of both of these, the proportion of malevolent highly articulated human responses, did not appear to add significantly to the discriminating

power. This particular measure has been shown to be useful in discriminating severe borderlines, a diagnostic group which was probably not significantly repesented in this sample, given their high academic functioning. Alternately, it may have provided little information in addition to that provided by the two separate measures.

Only the proportion of human responses produced a mean significantly different in the two groups, and that was true only in the more restrictively defined high and low groups. Most surprisingly, the results were contrary to expectations; the mean proportion of human responses was significantly greater in the lowest Social Appropriateness group, as compared to the highest group, when comparing the polar groups (the opposite from what was hypothesized).

In sum, it appears there is a modest relationship between high or low Social Appropriateness and proportion of human responses, proportion of highly articulated human responses, and proportion of malevolent responses.

Why should a greater proportion of human responses be found in the low polar Social Appropriateness group? Is there anything about human responses that might even cause a decrease in socially

appropriate judgement? One hypothesis is that the expression of human content taps into conflictual material. An emphasis on human content, as on any specific content or thematic category in the Rorschach, may indicate the presence of anxiety associated with that content area; the overemphasis may be an attempt to work through the anxiety or conflict through anxious perseveration. This hypothesis could be examined in a future study by determining whether increased human content or specific human identity within human content correlate with measures thought to indicate anxiety, such as shading on the Rorschach or external measures.

An increase in human content may not indicate better object relations, but instead more interest and involvement in or conflict over interpersonal issues. For example, schizophrenics, certainly not high in object-relational ability, have about the same number of humans on their Rorschachs as adult nonpatients. Specific information on which types of human content increased might have more relevance than the more general finding of increased human content, in terms of object relatedness. Observed increases in human content following successful treatment might be related to the increased focus and attention paid to interpersonal issues, in

treatment and by the person following treatment, rather than reflecting object relational functioning.

Turning to the Social Appropriateness measure, it should be recalled that the Social Appropriateness score differentiates well between psychotics and normals (Beck, 1950). However, the measure encounters difficulty with finer distinctions between, for example, different diagnostic groups. Harder and Ritzler (1979) noted that the Beck form quality scoring system was unable to distinguish between psychotic and nonpsychotic categories within an inpatient sample, although three other form-level scoring systems which made finer distinctions were able to differentiate among these groups. All of the other systems had at least six levels of response accuracy and differentiation in contrast to the plus or minus options for Beck's system.

One of these systems is particularly interesting from an object relations perspective. Recall that Mayman's form level scoring has seven levels, as opposed to Beck's two levels (1970). The three positive scores in Mayman's system, those of Excellent, Ordinary and Marginally Acceptable responses, are all contained within one category in the Burstein-Loucks system, that of positive Social Appropriateness. Similarly, Mayman's negative categories of

Marginally Unacceptable, Spoiled and totally Arbitrary responses are collapsed into the minus response. His category of Vague is part of the Burstein-Loucks cognitive complexity category. Much of the information incorporated into Mayman's seven-point scale is available within the Burstein-Loucks scoring system, but has not been collapsed into one score range.

Noting subtypes within the plus and minus categories might add additional discriminating power to the Social Appropriateness measure; certainly, subjects in whom Excellent responses predominate are quite different from those whose responses are, for the most part, marginally acceptable. Similarly, marginally unacceptable responses are fundamentally different from totally minus ones that make no meaningful reference to the blot. The drawback of such a change is that the very qualities that so distinguish the Burstein-Loucks system (simplicity and ease of scoring) might be compromised in the process. Furthermore, caution is needed before adding a multiplicity of scores when fewer can serve as well. When finer distinctions are made, the number of instances of any one score will be smaller; research will require a greater number of subjects to show meaningful trends. Having a

greater range of psychopathology in the sample might have resulted in better discrimination using the Interpersonal Expectations scores and the existing Social Appropriateness scoring; this possibility would need to be explored prior to undertaking a redesign of either scoring category.

In the Interpersonal Expectations scoring category, the measures of Human Articulation and Motivational Valuation were incorporated into this study; a third measure within this category, but not examined in the study, is Motivational Articulation. Compared to Blatt's Concept of the Object Scale, the Interpersonal Expectations section pays less attention to qualitative issues such as the degree of internality of motives for action, the degree of integration of the object and its action, and the nature of the interaction (active-passive, active-reactive or active-active).

Comparing the Burstein-Loucks system to Urist's Mutuality of Autonomy (MOA) Scale (1977) in the same way, the MOA Scale categorizes interactions on a seven point scale ranging from autonomous figures in a cooperative interaction to an interaction in which one party is engulfed or destroyed. The MOA scale highlights qualitative aspects of interactions and the degree to which appropriate boundaries are maintained. Such issues are of central

importance in object relational functioning.

While much of this information could be gleaned from the Burstein-Loucks system, it would involve examination of numerous scores instead of having the information collapsed into one scale. Such qualitative information might, it is hypothesized, be more clinically revealing than the current category of human articulation that, in some ways, is redundant with cognitive complexity scores. An alternative approach to redesigning the Interpersonal Expectations section is to create higher-order scoring categories, which combine individual scores within the system in a manner that is both clinically revealing and theoretically sound.

Kathryn White (1991) reviewed the Interpersonal Expectations section of scores for Human Articulation, Motivational Articulation, and Motivational Valuation in the Burstein-Loucks scoring system. She recommended scoring for the lack of human content on any given card, and proposed a more detailed range of Human Articulation scores, which provided for a more balanced distribution of scores across the range. This effort was undertaken after she noted the strong tendency of Human Articulation scores to cluster in the HA3 and HA4 categories, providing little differentiation. This tendency

was also a likely contributor to the lack of greater prediction from the measure reflecting the proportion of highly articulated human responses.

White created a specific Human Articulation score for the attribution of a specific identity, as the highest level of human articulation (HA6, in her system). Initial research on this measure suggested that this particular response may indicate a defensive reaction to overwhelming material. The interpretation of this finding was unclear - whether it demonstrated an adaptive coping strategy in a subject or was an indication of disordered affect and thought. This example illustrates the danger of assuming that a particular score necessarily indicates "higher" development.

The model in this study assumes a developmental continuum of increasingly articulated, positively toned internal images that correlate with better object relational development and with overall psychological functioning. If, instead of some linear relationship between "severity of disorder" and object relational functioning, there exists a particular pattern of functioning on the object relational measures for specific disorders, then these differences might be obscured in this study. An example of this is the tendency of hospitalized borderlines to have highly articulated malevolent

human content with good form, as reported by Blatt et. al. (1976). Only by looking at a higher order score, that of highly articulated malevolent responses scored for Social Appropriateness, can one detect this response style. Other specific patterns may exist for other diagnostic categories.

The model used in this study proposed that Social Appropriateness was widely recognized as a global measure of overall functioning, and that it would reflect fluctuations on object relational functioning. This assumed that there is a continuum of object relations development. While there is a series of developmental tasks, it may be overly simplistic to believe that people can be rank-ordered on object relational measures.

One important question is why the Cornell Index did not appear to act as the global measure of psychological functioning it was intended to fulfill. If it had behaved as predicted, it would have correlated with Social Appropriateness, a widely-acknowledged global Rorschach measure of functioning. Several explanations are plausible. One is that the failure of the Cornell to predict Social Appropriateness is related to aspects of the sample.

The Cornell Index is comprised of reports of physical and

psychological symptoms, many of which, even given psychopathology, may require time to develop. Because of the young age of college students, these symptoms may not have had time to emerge. While high scorers likely do have problems, it is also likely that few conclusions can be drawn from low scorers. The scatterplot of Cornell Scores plotted accoring to Social Appropriateness appears to show a significant subgroup of subjects who showed little variation in Cornell scores, despite a significant range of Social Appropriateness scores.

Second, we know that College Honors and Scholars are a relatively well-functioning group; presumably, this includes the capacity to handle stress adequately. Some populations can withstand a greater burden of psychological disturbance before showing symptoms; this may be one of those groups.

Third, this may merely illustrate the well-known phenomenon in which people with moderate psychological dysfunction function well on a structured test, yet show a deterioration of functioning on an unstructured one. Because the Cornell items are fairly face-valid, a subject who did not want to acknowledge problems could deny them on the Cornell, yet show impaired functioning on the Rorschach.

Clinical Implications and Suggestions for Future Research

Because identifying the most poorly functioning, "at risk" individuals in a student population is probably most important clinically, these results are encouraging. The most polar group results indicates that the Interpersonal Expectations measures successfully identify students whose reality testing is poorest, despite the low number of subjects in the analysis. Further development of the sensitivity of these measures may further increase the utility of the test for this purpose.

Several questions raised by this study deserve further examination. One is whether increased human content means more than just an interest in relationships, instead (or in addition) suggesting some unresolved interpersonal anxiety. The finding that subjects with the lowest Social Appropriateness scores have a higher proportion of human responses than subjects with the highest Social Appropriateness scores suggests that human content is inherently conflictual, or is more difficult to articulate without incurring cognitive "mistakes." This tendency needs to be explored,

to determine if these findings hold true in other samples and in other populations. Increased human content may have a different meaning when a subject is in treatment than when he or she is outside of a treatment setting, given the strong emphasis in treatment on interpersonal perceptions and realities.

There is no question that the Social Appropriateness (form quality) score is a sound one; it has been in use for almost as long as the Rorschach has existed. However, the more detailed scoring outlined by Mayman and others may augment the measure's ability to provide important information, and to identify important clinical groups. This could be tested by rescoring the protocols used in the above study, using Mayman's format (and perhaps adding to the number of subjects by including one more year's worth of subjects in the analysis). Particularly interesting would be research determining whether subjects would cluster into groups characterized by specific Social Appropriateness scores (asing a more detailed scoring system) and other scores from the Interpersonal Expectations category. This also might reveal important differences within the group of subjects who gave more human responses, such as detection of subgroups in which human responses are more adaptive and accompanied by higher functioning,

and others in which there is clearly decreased functioning, on the Rorschach and on external measures.

A third research issue involves the Interpersonal Expectations section, and how that might be improved to provide better discrimination — by providing a finer breakdown of human content responses for a more even distribution of answers, as White suggested, or by altering the section to provide more qualitative, boundary-relevant information. Yet another alternative would be creation of higher order scores that condense information found in several Rorschach scoring categories into theoretically sound and clinically revealing scores.

Finally, the issue of the utility of the Cornell Index in a college student population needs to be further explored, given the surprising lack of discrimination it provided.

LIST OF REFERENCES

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Allison, J., & Blatt, S. (1964). The relationship of Rorschach whole responses to intelligence. Journal of Projective Techniques & Personality Assessment, 28, 255-260.

Ames, L., Metraux, R., & Walker, R. (1971). Adolescent Rorschach responses. New York: Brunner/Mazel.

Applebaum, S. (1977). The anatomy of change: A Menninger Foundation report on testing the effects of psychotherapy. New York: Plenum.

American Psychiatric Association. (1980). Diagnostic and statistical manual of mental disorders (3rd ed.). Washington, DC: Author.

Atkinson, L., Quarrington, B., Alp, I., & Cyr, J. (1986). Rorschach validity: An empirical approach to the literature. Journal of Clinical Psychology, 42, 360-362.

Beck, S. (1938). Personality structure in schizophrenia: A Rorschach invesigation of eighty-one parients and sixty-four controls. New York: Nervous and Mental Disease Monograph.

Beck, S. (1945). Rorschach's test: A variety of personality pictures (Vol. 2). New York: Grune & Stratton

Beck, S., & Molish, H. (1967). Rorschach's test: A variety of personality pictures. (Vol. 2, 2nd. Ed.). New York: Grune & Stratton.

Bellack, L. (1969). Research on ego function patterns: A progress report. In L. Bellack & L. Loeb (Eds.), The schizophrenia syndrome. New York: Grune & Stratton.

Bellack, L., Hurvich, M., & Gediman, H. (1973). Ego functions in

schizophrenics, neurotics, and normals: A systematic study of conceptual, diagnostic, and therapeutic aspects. New York: Wiley.

Blanck, R., & Blanck, G. (1986). Beyond ego psychology: Developmental object relations theory. New York: Columbia University Press.

Blatt, S., & Berman, W. (1984). A methodology for the use of the Rorschach in clinical research. Journal of Personality Assessment, 48, 226-239.

Blatt, S. J., Brenneis, B., Schimek, J. G., & Glick, M. (1976). Normal development and psychopathological impairment of the concept of the object on the Rorschach. Journal of Abnormal Psychology, 85, 364-373.

Blatt, S., & Allison, J. (1963). Methodological considerations in Rorschach research: The W response as an expression of abstractive and integrative strivings. Journal of Projective Techniques, 27, 267-278.

Blatt, S. J., & Lerner, H. (1983). Investigations in the psychoanalytic theory of object relations and object representations. Empirical studies of psychoanalytic theories. The Analytic Press, 189-249.

Blatt, S., Tuber, S., & Auerback, J. (1990). Representations of interpersonal interactions on the Rorschach and level of psychopathology. Journal of Personality Assessment, 54, 711-728.

Bodoin, N., & Pikunas, J. (1983). A Rorschach form-color percentage and reality testing in adult patients and nonpatients. Journal of Personality Assessment, 47, 583-587.

Bowlby, J. (1969). Attachment and loss: Volume 1: Attachment.

New York: Basic Books.

Bowlby, J. (1958). The nature of the child's tie to his mother. The International Journal of Psycho-Analysis, 39, 350-373.

Bowlby, J. (1973). Attachment and loss. Vol. 2: Separation. New York: Basic Books.

Bowlby, J. (1980). Attachment and loss: Volume 3: Loss. New York: Basic Books.

Burstein, A. Rorschach's test: A review, in Buros, O. (Ed.). The eighth mental measurements yearbook, Vol. 1. Highland Park, N.Y.: Gryphon Press, 1978.

Burstein, A. & Loucks, S. (1989). Rorschach's test: Scoring and interpretation. New York: Hemisphere Publishing.

Eagle, M. N. (1984) Recent developments in psychoanalysis: A critical evaluation. New York: McGraw-Hill.

Endicott, N., & Endicott, J. (1963). "Improvement" in untreated psychiatric patients. Archives of General Psychiatry, 9, 575-585.

Endicott, N., & Endicott, J. (1964). Prediction of improvement in treated and untreated patients using the Rorschach Prognostic Rating Scale. Journal of Consulting Psychology, 4, 342-348.

Erdberg, P. (1990). Rorschach assessment. In G. Goldstein & M. Hersen (Eds.), Handbook of psychological assessment (2nd Ed.). New York: Pergamon.

Exner, J. E. Jr. (1978). The Rorschach: A comprehensive system, Vol. 2. Current research and advanced interpretation. New York: Wiley.

Exner, J. E., Jr. (1986). The Rorschach: A comprehensive system:

Vol. 1. Basic foundations (2nd ed.). New York: Wiley

Exner, J., & Murillo, L. (1977). A long-term follow-up of schizophrenics treated with regressive ECT. Diseases of the Nervous System, 38, 162-168.

Exner, J., Thomas, E., Cohen, J., Ridgeway, E., & Cooper, W. (1981). Stress indices in the Rorschach of patients recovering from myocardial infarctions. Workshops Study No. 286 (unpublished), Rorschach Workshops.

Exner, J., & Weiner, I. (1982). The Rorschach: A comprehensive system. Vol. 3. Assessment of children and adolescents. New York: Wiley.

Fairbairn, W. R. D. (1952). Psychoanalytic studies of the personality. London: Tavistock Publications & Routledge & Kegan Paul.

Frank, G. (1979). On the validity of hypotheses derived from the Rorschach: V. The relationship between form level and ego strength. Perceptual and Motor Skills, 48, 375-384.

Freud, A. (1966). The ego and the mechanisms of defense (revised edition). New York: International Universities Press.

Freud, S. (1923). The ego and the id. Standard Edition, 14, 13-66. London: Hogarth Press.

Freud, S. (1926). Inhibitions, symptoms and anxiety. Standard Edition, 20, 77-178. London: Hogarth Press.

Freud, S. (1914). On narcissism: An introduction. Standard Edition, 14, 73-102. London: Hogarth Press.

Freud, S. (1949). An outline of psycho-analysis. New York: Norton.

Friedlander, S. (1984). Measuring hedonic tone in the Rorschach:

The implicit motivational value score. Paper presented at the Eleventh International Rorschach Conference, Barcelona, Spain.

Gedo, J. (1986). Conceptual issues on psychoanalysis: Essays in history and method. Hillsdale, NJ: the Analytic Press.

Glatt, C., & Karon, B. (1974). A Rorschach validation study fof the ego regression theory of psychopathology. Journal of Consulting and Clinical Psychology, 42, 569-576.

Goldberger, L. (1961). Reactions to perceptual isolation and Rorschach manifestations of the primary process. Journal of Projective Techniques, 25, 287-302.

Goldman, R. (1960). Changes in Rorschach performance and clinical improvement in schizophrenia. Journal of Consulting Psychology, 24, 403-407.

Hamilton, N. (1988). Self and others: Object relations theory in practice. Northvale, NJ: Aronson.

Harder, D. & Ritzler, B. (1979). A comparison of Rorschach developmental level and form-level systems as indicators of psychosis. Journal of Personality Assessment, 43, 347-354.

Harder, D., Greenwald, D., Wechsler, S., & Ritzler, B. (1984). The Urist Rorschach Mutuality of Autonomy Sclae as an indicator of psychopathology. Journal of Clinical Psychology, 40, 1078-1082.

Hartmann, H. (1939). Ego psychology and the problem of adaptation. New York: International Universities press.

Hertz, M. (1970). Frequency tables for scoring Rorschach responses (5th ed.). Cleveland: Case Western Reserve University Press.

Hertzman, M. & Pearce, J. (1947). The personal meaning of the

human figure in the Rorschach. Psychiatry, 10, 413-422.

Holt, R. (1966). Measuring libidinal and aggressive motives and their controls by means of the Rorschach test. In: D. Levine (Ed.), Nebraska Symposium on Motivation, 1966. Lincoln: University of Nebraska Press.

Holt, R. (1970). Artistic creativity and Rorschach measures of adaptive regression. In B. Klopfer (Ed.), Developments in the Rorschach Technique, 3rd Ed. New York: Harcourt, Brace Jovanovich.

Holt, R. (1977). A method for assessing primary process manifestations and their control in Rorschach responses. In M. Rickers-Ovsiankina (Ed.), Rorschach psychology. Huntington, New York: Robert E. Krieger Publishing Co.

Kavanaugh, G. (1985). Changes in patients' object representations during psychoanalysis and psychoanalytic psychotherapy. Bulletin of the Meninger Clinic, 49, 546-564.

Kernberg, O. (1976). Object relations theory and clinical psychoanalysis. New York: Aronson.

Kernberg, O. (1966). Structural derivatives of object relationships. International Journal of Psychoanalysis, 47, 236-253.

Kinder, B., Brubacker, R., Ingram, R. & Reading, E. (1982). Rorschach form quality: A comparison of the Exner and Beck systems. Journal of Personality Assessment, 46,131-138.

Kissen, M. (Ed.). (1986). Assessing object relations phenomena. Madison, CT: International Universities Press.

Klein, M. (1935). A contribution to the psychogenesis of manic-depressive states. International Journal of Psychoanalysis, 16, 145-174.

Klein, M. (1921-1945). Contributions to psychoanalysis. London: Hogarth, 1948.

Klopfer, B., Ainsworth, M., Klopfer, W., & Holt, R. (1954). Developments in the Rorschach technique: Vol. 1. Technique and theory. Yonkers-on-Hudson: World Books.

Klopfer, B., & Kelley, D. (1942). The Rorschach technique. Yonkers: World Book.

Klopfer, B., Kirkner, F., Wisham, W., & Baker, G. (1951). Introduction: The development of a Rorschach Prognostic Rating Scale. Journal of Projective Techniques, 15, 421.

Klopfer, B., & Margulies, H. (1941). Rorschach reactions in early childhood. Rorschach Research Exchange, 5, 1-23.

Kohut, H. (1977). The restoration of the self. New York: International Universities Press.

Kohut, H. (1971). The analysis of the self. New York: International Universities Press.

Korchin, S., & Larson, D. (1977). Form perception and ego functioning. In M.Rickers-Ovsiankina (Ed.), Rorschach psychology. HUntington, New York: Krieger Publishing.

Kris, E. (1952). Psychoanalytic explorations in art. New York: International Universities Press.

Krohn, A. & Mayman, M. (1974). Object relations in dreams and projective tests. Bulletin of the Meninger Clinic, 38, 445-466.

Lerner, H. D. (1986). An object representation approach to Rorschach assessment. In M. Kissen (Ed.), Assessing object relations phenomena (pp. 127-142). Madison, CT: International Universities Press.

Lerner, H. D. & St. Peter, S. (1984). The Rorschach H response and object relations. Journal of Personality Assessment, 48, pp. 345-350.

Lerner, P. M. (1991). Psychoanalytic theory and the Rorschach. Hillsdale, NJ: Analytic Press.

Lichtenberg, J. (1975). The development of the sense of self. Journal of the American Psychoanalytic Association, 23, pp. 453-484.

Lubin, B., Larsen, R., & Matarazzo, J. (1984). Patterns of psychological test usage in the United States: 1935-1982. American Psychologist, 39,451-454.

Luborsky, L. (1962). Clinician's judgements of mental health. Archives of General Psychiatry, 7, 407-417.

Mahler, M., Bergman, A. & Pine, F. (1968). The psychological birth of the human infant: Symbiosis and individuation. New York: International Universities Press.

Marsden, G. (1970). Intelligence and the Rorschach Whole response. Journal of Projective Techniques & Personality Assessment, 34, 470-476.

Masterson, J. (1985). The real self: A developmental, self, and object relations approach. New York: Brunner/Mazel.

Mayman, M. (1967). Object representations and object relationships in Rorschach responses. Journal of Projective Techniques & Personality Assessment, 31, 17-24.

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, IIIa: Aspects of personality structure.

New York: Harcourt, Brace Jovanovich.

Mayman, M. (1977). A multidimensional veiw of the Rorschach movement response. In M. Rickers-Ovsinakina (Ed.), Rorschach psychology. Huntington, New York: Krieger Publishing.

Meyer, M., & Caruth, E. (1970). Rorschach indices of ego processes. In B. Klopfer, M. Meyer, & F. Brawer (Eds.), Developments in the Rorschach technique, IIIa: Aspects of personality structure. New York: Harcourt, Brace Jovanovich.

Modell, A. (1963). Primitive object relationships and the predisposition ot schizophrenia. International Journal of Psycho-Analysis, 44, 282-292.

Molish, H. (1967). Critique and problems of the Rorschach. In S. Beck & H. Molish (Eds.), Rorschach's test (Vol. 2). New York: Grune & Stratton.

Molish H., & Beck, S. (1958). Further exploration of the six schizophrenias: Type S-3. American Journal of Orthopsychiatry, 28, 483-505.

Norusis, M. (1985). SPSS-x Advanced Statistics Guide. New York: McGraw-Hill.

Ogden, T. (1990). The matrix of the mind: Object relations and the psychoanalytic dialogue. Northvale, NJ: Aronson.

Parker, K. (1983). A meta-analysis of the reliability and validity of the Rorschach. Journal of Personality Assessment, 47, 227-231.

Parker, K., Hanson, R., & Hunsley, J. (1988). MMPI, Rorschach, and WAIS: A meta-analytic comparison of reliability, stability, and validity. Psychological Bulletin, 103, 367-373.

Pine, F. (1990). Drive, ego, object & self: A synthesis for clinical work. New York: Basic Books.

Piotrowski, C., Sherry, D., & Keller, J. (1985). Psychodiagnostic test usage: A survey of the Society for Personality Assessment. Journal of Personality Assessment, 49, 115-119.

Piotrowski, Z. (1957). Perceptanalysis. New York: Macmillan.

Pruitt, W., & Spilka, B. (1964). Rorschach Empathy-Object Relationship Scale. Journal of Projective Techniques and Personality Assessment, 28, 331-336.

Rapaport, D. (1967). The collected papers of David Rapaport. New York: Basic books.

Rapaport, D., Gill, M., & Schafer, R. (1946). Diagnostic psychological testing (Vol. 2). Chicago: Year Book Publishers.

Rapaport, D., Gill, M. & Schafer, R. (1968). Diagnostic psychological testing. New York: International Universities Press.

Rickers-Ovsiankina, M. (1938). The Rorschach Test as applied to normal and schizophrenic subjects. British Journal of Medical Psychology, 17, 227-257.

Rickers-Ovsiankina, M., (Ed.) (1977). Rorschach psychology. Huntington, New York: Robert E. Krieger.

Ritzler, B., Zambianco, D., Harder, D, & Kaskey, M. (1980). Psychotic patterns of the concept of the object on the Rorschach Test. Journal of Abnormal Psychology, 89, 46-55.

Rosegrant, J. (1984). Rorschach object relations and fantasy themes incorrectly scored as determinants. Journal of Personality Assessment, 48, 467-475.

Rorschach, H. (1921). Psychodiagnostics. Bern: Bircher.

Ryan, R., Avery, R., & Grolnick, W. (1985). A Rorschach assessment of children's mutuality of autonomy. Journal of Personality Assessment, 49, 6-12.

Sandler, J., and Rosenblatt, B. (1962). The concept of the representational world. Psychoanalytic Study of the Child, 17, 128-145.

Schachtel, E. (1950). Projection and its relation to character attitudes and creativity in the kinesthetic response. Contributions to the understanding of Rorschach's Test. IV. Psychiatry, 13, 69-10.

Schachtel, E. (1966). Experiential foundations of Rorschach's test. New York: Basic Books.

Schafer, R. (1967). Projective testing and psychoanalysis. New York: International Universities Press.

Schafer, R. (1968). Aspects of internalization. New York: International Universities Press.

Smith, K. (1983). Object-relations concepts applied to the psychotic range of ego functioning with special reference to the Rorshcach Test. Bulletin of the Menninger Clinic, 47, 417-439.

Sugarman, A. (1980). The borderline personality organization as manifested on psychological tests. In: Borderline phenomena and the Rorschach test, Ed. J. Kwaher, H. Lerner, P. Lerner, & A. Sugarman. New York: International Universities press, pp. 39-58.

Urist, J. (1977). The Rorschach test and the assessment of object relations. Journal of Personality Assessment, 41, 3-9.

Weiner, I. B. (1966). Psychodiagnosis in schizophrenia. New York: Wiley.

Weiner, I. (1977). Approaches to Rorschach validation. In M. Rickers-Ovsiankina (Ed.), Rorschach psychology. Huntington, New York: Krieger Publishing.

White, K. (1991). Personal communication.

Wilensky, H. (1959). Developmental scoring of Rorschachs of schizophrenics. Paper read at the Eastern Psychological Association, Atlantic City.

Winnicott, D. (1965). The maturational processes and the facilitating environment. New York: International Universities Press.

VITA

Carol J. Atwater was born and raised in the Kansas City, Kansas metropolitan area. She obtained an Associate's Degree in Applied Science in the field of Respiratory Therapy from Penn Valley Community College in Kansas City, Missouri in 1974. She then worked as a Respiratory Therapist for the next ten years.

Ms. Atwater earned a Bachelor of Science Degree in Natural Sciences from the University of Rochester in 1982. In September, 1984, Ms. Atwater entered the doctoral program in clinical psychology at the University of Tennessee, Knoxville. She completed her internship at the Albany Internship Consortium in Albany, New York in August, 1989. Since finishing her internship, Ms. Atwater has worked at the Albany County Mental Health Center in the field of forensic psychology, working with adults and families, and providing psychological evaluations to the Courts.

Dr. Atwater received the Doctor of Philosophy degree in Clinical Psychology in August, 1992.