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THE RELATIONSHIP BETWEEN INTERNAL OBJECT REPRESENTATIONS AND AFFECTIVE STYLE: A TAT STUDY

by

ROBIN B. KERNER

A dissertation submitted to the Graduate Faculty in Psychology in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York.

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Abstract

THE RELATIONSHIP BETWEEN INTERNAL OBJECT REPRESENTATIONS AND AFFECTIVE STYLE: A TAT STUDY

by

Robin B. Kerner

Adviser: Professor Diana Diamond

This study explored the relationship between internalized object representations and interpersonal affective style (AS). Subjects were drawn from a sample of families participating in the Yale Psychiatric Institute Family Study (Diamond & Doane, 1994). The present study examined only the parents in these families (N=70). At the time of their child's psychiatric admission, these subjects were administered the Thematic Apperception Test (TAT) and participated in a family interaction task in order to assess their affective style (AS; Doane et al., 1981). TATs were scored utilizing Westen's (1985, revised 1989) Social Cognition and Object Relations Scale (SCORS). It was hypothesized that subjects who have internalized poor object relations would manifest a negative affective style in their interactional behaviors. It was also posited that treatment outcome for patients in families with lower levels of object relations would be worse than those from families with

higher object relations. None of the planned tests for the hypotheses yielded significant results.

Post-hoc analyses of the data, which separated the subjects by child's diagnostic classification, did find significant relationships. Higher overall level of object relations was associated with less negative affective style, and there were significant correlations between a number of object relations and AS subscales. However, in the nonschizophrenia group, significance was found only at baseline, whereas in the schizophrenia group, significance emerged only when analyzing the 3-month data. These results are discussed in terms of underlying family dynamics.

The counterintuitive findings of this study speak to the complexity one's internal world, and, perhaps, to the inability of a single measure to fully capture the nature of one's object representations. This study raises important questions as to the impact of environmental factors on object relations functioning, the stability of internalized object representations, as well as to the association of AS and object relations dimensions to specific psychopathology. Areas of future exploration suggested by the results include the use of the TAT in object relations assessment, the validity of the SCORS, and the relationship between attachment, object relations, psychopathology, and the expression of negative affect.

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CHAPTER I

INTRODUCTION

> "The object, if it is to be used, must necessarily be real in the sense of being part of shared reality, not a bundle of projections... The development of a capacity to use an object is another example of the maturational process as something that depends on a facilitating environment."
>
> - D.W. Winnicott, 1971

The purpose of this study is to explore the relationship between internalized object relations and the interpersonal expression of emotion. Kernberg (1976) and others have described internal object relations as configurations of representations of self and representations of others linked by particular affects. This study attempts to relate the affective component of this self-affect-other triad to the ways in which emotion is expressed in relationships with others. The study draws upon the concept of object relations as a developmental phenomenon (Westen, 1991), with the formation of self and object representations occurring along a continuum from more primitive to more multifaceted object relations. However, individuals do not attain and maintain a uniform level of object relations. Rather, one's object relations vary across several dimensions at any point in time, as well as within interpersonal relationships.

The process of how one's self and object representations emerge has been explored from various psychological perspectives. Of particular relevance to the present study are object relations and attachment theory. While there is continued debate in the literature over the convergences and divergences of these theories and their accompanying terminologies, which will be explored in detail in the next chapter, central to both is the impact of the quality of the parental relationship upon the development of one's internalized object relations. Further, there is agreement amongst attachment and object relations theorists that the quality of early caregiving has significant impact on the quality of interpersonal relationships later in life, which occurs through the internalization of representations of these early parent-child interchanges. Through this process a child's first and most significant relationships become a part of him, which, in turn, shapes his experience of himself and others, as well as the development and maintenance of interpersonal relationships (Slade & Aber, 1992). Thus, the child establishes intrapsychic representations of self, others, and affects that serve as a template for all future relationships.

However, internalization is not just an interpersonal process; it also has developmental implications. Westen (1991; Westen et al., 1985) outlines several developmental

phenomena from which different facets of self and object representations emerge. A significant developmental step is achieved when one's internalized representations are characterized by the increased differentiation of self and others. These representations then become progressively more well-integrated and complex. As self and object representations mature, they also begin to reflect a more integrated affective experience. There is less evidence of splitting, i.e., internalized objects that were split due to incompatible affects can now be representations that incorporate multiple emotions. The affective quality of one's internal object world is also crucial to Westen's conceptualization. The emotional valence of internalized relationships is also viewed along a continuum, from primarily malevolent and unsatisfying to primarily benevolent and rewarding. On another dimension, capacity for emotional investment in others, individuals move from a position of need gratification to mutuality and empathic engagement.

The present study posits that individuals who have internalized poor object relations (i.e., more primitive, malevolent, and unintegrated) will manifest a negative affective style in their interactional behaviors. The current investigation is based on a longitudinal study that was conducted at the Yale Psychiatric Institute (YPI). The

YPI project was designed to investigate the contribution of attachment-related family processes to the course of treatment of severely disturbed adolescents and young adults and their families (Diamond & Doane, 1994). The research explored multigenerational patterns of attachment, focusing on the impact of attachment style on current family functioning. Approximately 50 long-term inpatients and their families were studied during this project. One of the core measures of this study has been affective style (AS), which is an interactional analog of an earlier construct, expressed emotion (EE). AS is a measure of negative affect expressed by parents in face-to-face family interaction tasks, and it has been found to be predictive of a poor psychiatric outcome (e.g., Doane et al., 1985; Miklowitz et al, 1995, 1989). In addition to examining the role of AS in predicting outcome in the YPI sample, the data have been analyzed to include measures of attachment. Specifically, it was hypothesized that the quality of the intergenerational attachment of parents to their own parents is associated with the degree of negative AS (i.e., an interactional style characterized by a high degree of criticism, intrusiveness, and guilt-inducing remarks) they direct towards their offspring (Diamond & Doane, 1994). Significant findings of the study included that there was indeed a link between disturbances in the mother's

attachment to her own mother and the degree of negative affect directed at the child patient. There also appeared to be support for the hypothesis that the parent's own internal burdens, the result of disturbed attachment representations, may be driving the negative affect displayed with their children.

These analyses provided a fairly clear picture of the sample's attachment patterns; however, the question of what these parents' object relations look like began to be raised. In other words, what are the mechanisms involved in the process of internalizing good and bad objects? The subjects displaying negative AS seem to have all internalized a "bad" internal working model, which they are re-enacting with their own children. However, the previous study did not examine the relationship between affective style and internalized object relations. Specifically, the question remained as to how internalized images of self and others are externalized into relationships. It is this interplay between one's intrapsychic and interpersonal worlds that will be explored in this thesis.

CHAPTER II

LITERATURE REVIEW

A. Expressed Emotion

As the movement to deinstitutionalize psychiatric patients gained momentum in the 1950s, so did interest in the emotional attitudes of relatives living with people with psychiatric illness. Brown et al. (1958) observed that chronic male schizophrenic patients who had returned from extended hospitalization to parents or spouses relapsed significantly more often than those returning to other relatives or living on their own. To better understand this phenomenon, Brown and his colleagues at the Medical Research Council Social Psychiatry Unit in London conducted a prospective study of 101 schizophrenic patients to determine whether the expression of hostility specifically, or of any strong emotion in general, by the relative toward the patient or efforts to dominate the patient could be isolated as behaviors that contributed to relapse (Brown et al., 1962). The study demonstrated a significant association between intensity of emotion or the amount of hostility directed toward the patient by the relative and the likelihood of deterioration during the following year. A similar phenomenon in relatives of neurotically depressed patients was found by Vaughn and Leff (1976). These results suggest that the expressed emotion construct may generalize

to other illnesses, both psychological and physical. This link between the emotion expressed by families and patients' relapses is of interest on two fronts: broadly as a determinant of the fate of patients with chronic psychiatric disorders, and more specifically, in terms of the treatment conditions, both individual and family, that might mitigate the course of such disorders (Doane & Diamond, 1994).

Expressed emotion (EE) is an operationally defined construct that measures the extent to which relatives express critical, hostile, or overinvolved attitudes about a patient when discussing the patient's and family life with an interviewer (Koenigsberg & Handley, 1986). The operational definition of EE consists of five scales, which are assessed during a private, semi-structured interview with the relative, the Camberwell Family Interview (CFI). The CFI explores in detail the patient's illness, its recent effects on family life, and family members' attitudes and feelings about the patient. The interview yields the following five scales: (1) critical comments about family members; (2) hostility; (3) emotional overinvolvement; (4) warmth; (5) positive remarks (Leff & Vaughn, 1985). Of these five scales, criticism, hostility, and emotional overinvolvement were found to be the most effective predictors of postdischarge relapse (Brown et al., 1972; Vaughn & Leff, 1976; Vaughn et al., 1984).

The criticism score is computed by taking a frequency count of the number of critical comments made about the patient during the relative interview. Critical comments are remarks that reflect, either in content or in tone of voice, criticism of the patient. Hostility is measured on a 4-point scale and assesses the extent to which the relative attacks the patient or expresses intense, unremitting dislike or hatred for the patient. Emotional overinvolvement, rated on a 6-point scale, measures unusually self-sacrificing and devoted behaviors, overprotectiveness, and exaggerated emotional reactions with respect to the patient. These three measures are combined into the composite construct, expressed emotion, and operationally defined as "high EE" or "low EE."

Brown's original work has been replicated both in London and in the United States across a broad spectrum of psychiatric disorders, including schizophrenia (Kavanagh, 1992; Parker & Hadzi-Pavlovic, 1990), bipolar disorder (Miklowitz et al., 1988; Priebe et al., 1989), major depression (Hooley et al., 1986; Vaughn & Leff, 1976), and eating disorders (Szmukler et al., 1985). The results of these studies have confirmed the robust relationship between the level of EE expressed by relatives at the time of admission and relapse during the posthospitalization period. These investigators defined relapse as either symptom

exacerbation or rehospitalization and found rates three to four times higher for patients in high EE families as compared to low EE families. Further, the association between EE and relapse appears to persist at 2 years following discharge (Falloon et al., 1985; Leff & Vaughn, 1981). A recent meta-analysis by Butzlaff & Hooley (1998) of the 27 EE outcome studies in schizophrenia to date confirmed that EE is a significant and robust predictor of relapse in schizophrenia, with the strongest relationship demonstrated in patients with more chronic illness.

The question of whether high EE is associated with particular psychiatric diagnoses has also been investigated. Miklowitz et al. (1987) found equal distribution of high and low EE attitudes among parents of recent onset schizophrenic and bipolar patients. Similarly, Vaughn and Leff (1976) studied hospitalized schizophrenic and depressed patients, and concluded that the number of EE criticisms did not differ between relatives in the two groups. It can be hypothesized from such studies that intrapsychic factors, which are not diagnostically specific, may exist that contribute to one's negative reactions toward a psychiatrically-ill family member. It is also interesting to note that high EE attitudes are not limited to family environments--they have been found to occur among mental

health professionals with whom patients interact, as well (Ball et al., 1992).

Other studies have examined the link between high EE and psychopathology in family members. Specifically, Goldstein et al. (1992) found that parents of schizophrenic patients who consistently rated high EE, i.e., on two separate measures conducted at different points in time, were more likely to have a lifetime history of major psychiatric disorders than were parents who rated low EE on either one or both of the measures. Miklowitz (1994) reviews other research that also demonstrates associations between high EE and psychopathology in relatives of bipolar patients, as well as in parents of conduct-disordered and obsessive-compulsive children. In all of these studies, it is important to note that most of the parents' psychiatric disorders had occurred in the past and were not manifest at the time of the EE evaluations.

More recently, EE has been expanded beyond the domain of psychiatric illness and applications have been explored in the medical setting (Koenigsberg, 1994). Empirical evidence indicates that EE is predictive of the course of diabetes (Koenigsberg et al., 1993) and Alzheimer's disease (Vitaliano et al., 1993). EE has also been investigated cross-culturally and its predictive validity extends to families across a wide range of cultures, including Egypt

(Okasha et al., 1994), India, and Israel (Doane & Diamond, 1994). Operationally defined, highly reliable, and consistently predictive in a large number of replication studies, expressed emotion stands out as one of the most promising psychosocial variables in psychiatry (Koenigsberg, 1994).

The importance of this body of research on expressed emotion is that it established a robust, predictable relationship between family environment and clinical relapse in patients with schizophrenia. This finding led to the investigation of the effects of family therapy in reducing the negative parental behaviors (i.e., criticism, hostility, and overinvolvement) that were associated with poor patient outcome (e.g., Falloon et al, 1985; Hogarty et al., 1986). Such family interventions were shown to dramatically reduce relapse in schizophrenics during the first year following hospitalization. However, the reception to such behaviorally-oriented psychoeducation treatment for families was mixed. Organizations such as the National Alliance for the Mentally Ill (NAMI) felt that EE research was for all intents and purposes blaming parents for their children's psychiatric illness. Of more relevance to the present study, though, is the fact that such direct, education-oriented, behavior-management approaches to family treatment appeared to have limitations in its use with severely

disturbed families. These interventions did not address why parents continually behaved in a hostile or critical manner, nor did they explore the quality of attachment relationships within the family. In many families, members were reacting based on internalized representations that were being transformed into interpersonal transactions. These intrapsychic structures needed to be identified and understood before any positive behavioral changes could be made in the family system. Thus, a need emerged to understand affective behaviors in the context of their intrapsychic roots, and it is this relationship that will be explored by the present study. However, since expressed emotion is not a measure of actual affective behavior, another means of assessing affective exchanges was identified. This measure, affective style, is presented in the following section, along with its relationship to expressed emotion.

B. Expressed Emotion and Affective Style

While expressed emotion is clearly an effective measure of relapse in chronic psychiatric populations, the question remains as to whether EE does in fact reflect a particular family interaction pattern. If this were the case, it could explain how relatives' negative attitudes are conveyed to patients and the impact of these attitudes on the patients. One limitation inherent to the EE measure is that it can only assess attitudes towards the patient, rather than actual behaviors. In order to address this relationship between attitudes and behaviors, Doane et al. (1981) developed a system for coding characteristics of family interactions. Termed affective style (AS), this coding system was designed to capture the clinically meaningful affective attitudes and behaviors that were verbally expressed toward a patient during a face-to-face family discussion task (Doane & Diamond, 1994). AS can be considered a transactional measure of family emotional climate that is designed to measure the degree of criticism, intrusiveness, and/or guilt-inducing remarks parents make during an emotionally charged family discussion. Statements that are supportive in nature, such as empathy, praise, and acknowledgment of progress, are also coded (see Assessment of Affective Style). Central to both EE and AS are the concepts of overinvolvement and negative affect; however,

the AS measure does not directly measure emotional overinvolvement. Instead, it differentiates between types of criticism and captures the affective tone of relatives' remarks towards patients.

Like expressed emotion, AS has been shown to be associated with relapse in a variety of diagnostic groups, including schizophrenia (Doane et al., 1985; Miklowitz, 1994), nonpsychotic adolescents (Doane et al, 1981), and affective disorders (Miklowitz et al, 1988). One study of recently-diagnosed manic patients found that a combination of EE and AS assessment was a more effective predictor of relapse than either measure alone (Miklowitz et al., 1987). Doane et al. (1981) found that rating actual parent behaviors (i.e., AS), particularly the affective tone, for degree of criticism and intrusiveness increased the reliability of prediction of relapse among psychiatric patients. Valone et al. (1983) applied the affective style measure to parent-offspring interactions in families of disturbed, but nonpsychotic, adolescents. The study found that parents who were rated high EE on the CFI also tended to express an excessive number of critical comments toward their offspring in actual family transactions (i.e., AS). This finding was also replicated in a sample of schizophrenics (Miklowitz et al., 1984). Miklowitz and colleagues reported a significant association between the EE

level of each parent and the total of critical and intrusive statements made by each parent in interaction with the patient. In addition, EE ratings of criticism and overinvolvement are significantly related to their respective AS analogs, criticism and intrusiveness (Miklowitz et al., 1984; Strachan et al, 1986).

However, even though there is some overlap between the two measures, at least two studies have found that the categorical designations of AS--benign and negative-- are statistically independent of their EE counterparts-- low and high (Miklowitz et al., 1987; Valone et al., 1983). This statistical finding that high EE does not necessarily translate to negative AS in face-to-face interactions, suggests that some high EE individuals are able to inhibit their negative behavior in the presence of family members, while others cannot. However, the intrapsychic structures that contribute to this behavioral inhibition have yet to be determined. One of the objectives of the present study is to examine how individuals with negative AS have internalized object relations in order to explore this question.

The above body of literature strongly supports the belief that family attitudes and interactional behaviors, as measured by EE and AS, respectively, are associated with the course of psychiatric illness. However, not as much is

known about how negative EE or AS develops and whether it varies as a function of the patient's psychiatric illness. Researchers have studied this by exploring the relationship between EE and AS levels and particular diagnostic categories, as well as the variance in these factors over the course of psychiatric illness. Miklowitz et al. (1995) posit that EE and AS might be a reflection of the natural emotional reactions of family members to the onset of an acute psychiatric disorder in the family system, as well as of the stress produced when a psychiatrically-ill family member is discharged home, often with residual symptoms. Given this perspective, some variance in EE and AS levels may be expected during the phases of a patient's hospitalization and recovery. However, investigations into the state-dependence of EE and AS have proved inconclusive. Some studies have found shifts in families from high EE at hospitalization to low EE at follow-up (Brown et. al., 1972; Dulz & Hand, 1986; Hogarty et al., 1986). The rates of reduction varied, with the most dramatic changes seen in the number of criticisms, and appeared to parallel clinical improvements in the patient. On the other hand, Goldstein et al. (1992) found that a substantial proportion of high EE relatives remain critical despite patient gains. A history of psychopathology in the parent appeared to be a contributing factor to the sustained high EE levels assessed

in this study. Similar results were reported by Doane et al. (1986) in a study of AS levels in families of schizophrenia patients post-hospitalization. Increases in AS occurred despite reductions in symptom severity and treatment with both medication and individual therapy.

Some studies suggest that EE and AS levels are correlated with patient attributes, some of which are related to specific diagnoses. For example, Miklowitz et al. (1995) found that relatives of schizophrenic patients made more negative AS statements to patients than relatives of bipolar patients. Further, among bipolar patients and their families, negative AS in relatives was associated with oppositional styles in patients. Bipolar patients also tended to speak much more often and be more assertive during family discussions as compared to the schizophrenic group. However, the degree to which this assertiveness was due to residual symptomatology or to habitual patterns of interacting with relatives could not be determined from the study and warrants further investigation into the impact of subclinical states of psychiatric illness on interpersonal relationships.

In summation, while there is a broad base of literature studying expressed emotion and affective style, it is still not clear what actually drives high EE or negative AS behaviors. Expressed emotion and affective style appear to

be externalizations of complex internal processes, such as parental object representations and parent-child attachment patterns. It is the goal of this study to provide insight into this question. Therefore, the discussion will now turn to a review of object relations and attachment theory in order to better understand the potential underlying mechanism of action, so to speak, of EE and AS behaviors.

C. Object Relations Theory

Object relations is a much-debated and widely-defined psychoanalytic concept. In their seminal review of the topic, Greenberg and Mitchell (1983) refer to object relations as a "problem," because of the lack of consensus in the literature as to the definition, origin, or evolution of the concept. They use the term object relations to refer to "an individual's interactions with external and internal (real and imagined) other people, and to the relationship between their internal and external object worlds" (pp. 13-14). As a more general term, object relations refers to a range of cognitive and affective processes that mediate interpersonal functioning in relationships (Stricker & Healy, 1990). Object relations can be conceptualized as a developmental phenomenon, with an individual operating at a "level" of object relations, ranging from developmentally immature to mature. It is important to note, however, that individuals do not respond uniformly at one level of object relations. Rather, the quality and maturity of object relations, as evaluated across various dimensions, can differ within an individual at any given time and can vary across his or her interpersonal relationships (Westen, 1991).

A number of key areas can be evaluated to differentiate among the various object relations theories (Kernberg,

1995). First, one can consider the extent to which object relations replace drives as the primary motivation for behavior. Related to this is the role of affect in the development of drives (i.e., is the drive an attempt to discharge an affective state or is the affect secondary to drive). In addition, the role and origin of aggression as a motivator of behavior differs among the various object relations theories. Specifically, does the theory accept the notion of inborn aggression or, instead, reject this idea and believe that aggression is secondary to the search for object relations. Finally, there is much debate over the role of fantasy and the impact of actual interpersonal relations upon the development of internalized object relations.

Despite these points of contention, there does exist some common ground among the major object relations theorists. All acknowledge the influence of the vicissitudes of early developmental stages on the formation of intrapsychic structures, one of which is an internalized world of object relations. The various theories all deal with the relationship between past and present object relations, both intrapsychic and interpersonal. Finally, they are also all interested in the affective dimension of the self-object relationships and representations (Kernberg, 1995). Central to psychoanalytic object relations theory

are affects, as well as the defense mechanisms utilized to avoid and regulate them. Kernberg (1976) conceptualizes affect states as bound by internalized object relations. In other words, an object relation is a particular representation of a self in interaction with a particular object relation under the influence of a particular affect (Kernberg, 1990). The goal of the present study is to explore the expression of affect in interpersonal relationships and its connection to internalized object relations. Therefore, this literature will present a general review of object relations, with a focus on the connection between internalized objects and interpersonal relationships.

Any discussion of psychoanalytic object relations theory must begin with Freud. Although he never used the phrase "internal object," there are numerous references in Freud's work to processes of internalization and representation (Mitchell & Black, 1995). At the core of Freud's theory is the concept of drives, which are constantly seeking discharge. For Freud, drives are psychic in nature, biologically predisposed, and not initially attached to an object. From the beginnings of life the infant experiences partial drives, both sexual and aggressive. As the infant seeks discharge for these drives—for example, the urge to suck is experienced, tension

mounts, and the infant looks for the breast—he accrues a set of pleasurable and dissatisfying experiences. It is the gradual coalescence of these experiences with a part object that lead to the formation of object representations and relationships (Greenberg & Mitchell, 1983). For Freud, the object is created by the individual in order to obtain gratification—it is always secondary to the drive.

The term object was used by Freud to designate the target of the drives, and his conceptualization of the object did not change dramatically over the course of his work. His view of affects, on the other hand, underwent radical transformation. Originally, Freud considered affects as practically interchangeable with drives; later, as discharge processes of drives; and, finally, as inborn dispositions (Kernberg, 1990). The nature of the link between drives and affects, which has existed from the beginning of psychoanalytic theory, is an area of continued exploration and tension in the psychoanalytic community.

Melanie Klein, considered by many to be the first object relations theorist, embraced Freud's concepts of drives. However, while objects for Freud were accidentally discovered to discharge the tension of a drive, for Klein the object was inherent to the experience of the impulse itself (Mitchell & Black, 1995). Klein conceptualizes the infant's experience as composed of two polarized states,

envisioned as the "good breast" and the "bad breast." The former envelops the infant in love, nurturing, satisfaction; the latter is a world of persecution, abandonment, and pain. These part-objects are the subject of much of the infant's fantasizing during the early months of life, and are enmeshed with aggressive and libidinal drives (Greenberg & Mitchell, 1983).

To maintain any sense of emotional balance, the infant must keep these two worlds separate. However, as the infant matures, Klein believes there is an inherent tendency that encourages movement toward integration of objects (Mitchell & Black, 1995). In other words, the good breast and the bad breast begin to be perceived not as distinct and incompatible experiences (i.e., part-objects), but as part of the same whole object that is neither all good nor all bad, but sometimes good and sometimes bad. In Kleinian terms, the infant moves from the paranoid-schizoid position to the depressive position.

In the depressive position, the whole object (both the external mother and internalized whole object) is continually destroyed by the infant's rageful fantasies. However, the infant cannot survive without the object; consequently, reparative fantasies are produced to make the mother whole again. These cycles of loving, frustration, destruction, and reparation solidify the infant's capacity

to remain related to whole objects. It is important to note that Klein does not believe this capacity develops primarily in response to actual experiences with a real mother. While an actual mother is important insofar as she must demonstrate some ability to contain her child's aggressive drives, it is the fantasy mother and the child's destructive and reparative fantasies that are central to Kleinian theory (Mitchell & Black, 1995).

Melanie Klein viewed the internalization of objects and object relations as a sign of normal development. W.R.D. Fairbairn, on the other hand, believed that a dependence on an internal world develops as compensation for bad parenting. Fairbairn sees the infant as object seeking and oriented to reality from birth. As the infant attempts to get his dependency needs met, he differentiates responsive aspects of the parents from the unresponsive aspects. When these unresponsive features cannot be grasped, they become internalized in the infant, as fantasized aspects of the self. For Fairbairn, these internal objects and object relationships are substitutes for actual, satisfying interpersonal relationships (Mitchell & Black, 1995; Sutherland, 1980). Further, Fairbairn posits that these internalized patterns from our earliest significant interpersonal interactions impact all future relationships. In his model, the modes of connection with early objects

become our preferred ways of connecting with new objects. In other words, we project our internal object relationships onto new interpersonal situations (Mitchell & Black, 1995).

Like Fairbairn, D.W. Winnicott emphasizes the significance of real interactions with the primary caretaker on the development of an infant's object relations. However, his focus on the development and maintenance of a sense of self in the face of intimate interpersonal relationships. In contrast to Klein, whose newborn is characterized by disintegration, fragmentation, and terror, Winnicott's infant is comfortably disconnected and diffuse, oscillating between integrated and unintegrated affective states. (Kernberg, 1995; Mitchell & Black, 1995). However, this state can only be attained in the environment of what Winnicott terms the "good-enough mother," an empathic presence that gratifies the infant's needs and whose repeated availability gradually builds the infant's sense of self. The baby's experience in this "holding environment" is one of a shared reality with mother, and a sense of omnipotence where the child believes that he creates and controls the object of his desire. As mother emerges from her state of "primary maternal preoccupation," though, she begins to falter and cannot meet baby's every need. It is through these experiences of frustration and failure that the infant begins to feel dependent on an other. The infant

becomes aware of the separateness and distinctness of the object, as well as the fact that the object cannot be created—it must be found. In other words, the relationship between mother and infant matures from wish actualization to one increasingly characterized by differentiation, interaction, and negotiation (Greenberg & Mitchell, 1983).

To cope with this disparity between the worlds of omnipotence and objective reality, the child creates what Winnicott termed a "transitional object." The transitional object is not so much a transition from dependence to independence, but a transition between the inner world and outer reality. The transitional object is both created by the infant and exists objectively in the external world. This duality allows the infant to experience a shift in sense of self from one who is the center of a subjective world to a self who operates in a world of others. While the need for transitional objects generally dissipates during childhood, the ability to utilize transitional experience remains important throughout the lifespan.

Transitional space is the place where the infant explores the expression of aggression (Mitchell & Black, 1995). Somewhat similar to Klein's paranoid-schizoid position, Winnicott sees the infant initially using an object without "ruth." In other words, the infant creates the object, exploits it for his own pleasure, and, thus,

destroys it. This experience requires the presence of an other, a good-enough mother, who can allow herself to be used this way and survive her child's destruction. The continuous cycle of object use, destruction, and survival establishes a sense of self and others for the child.

For Winnicott, the self emerges from relational processes, and only with a sense of true self can one feel that life is real and worth living. This view stands in sharp contrast to traditional drive theory, which emphasizes drive gratification and sublimation in one's capacity to enjoy life (Greenberg & Mitchell, 1983). Other object relations theorists, like Edith Jacobson and Otto Kernberg, attempted to blend these two frameworks. Jacobson's theory focused on affect and its impact on the development of representations of self and other; she proposed that affects were not solely discharge processes, but the representations of drives integrated with representations of self and objects from early life (Kernberg, 1995). Jacobson also explored the link between affects and cognitions, as well as the cognitive aspects of affects in self and object representations and in actual interpersonal relationships. For Jacobson, early actual experiences between infant and caretaker are registered in terms of how they feel to the baby and are polarized as feeling good or feeling bad. These subjective feeling states lay the groundwork for "self

images" and "object images," in other words, the ways we feel about ourselves and others (Mitchell & Black, 1995). Eventually, splitting of conflictual feeling states diminishes, and an affectively integrated image of self and other is attained, which allows for an increased capacity for complex relationships with others.

Kernberg (1990) takes Jacobson's theory further, and proposes a model in which affects are considered the building blocks of drives. For Kernberg, drives are less motivational, but play an important organizational role (Greenberg & Mitchell, 1983). Early experiences are relational configurations that reflect the interaction of the infant with a human object, i.e., mother. Over the course of early development, an activation of a drive is represented by a corresponding affect state. This affect state includes an internalized object relation, in other words, an image of the object, an image of the self, and an affective valence determined by the drive derivative present during the interaction. These three components (self-other-affect) compose the "internalization system," upon which one's relational and intrapsychic structures are based (Greenberg & Mitchell, 1983; Kernberg, 1990; 1976).

This brief outline of psychoanalytic object relations highlights the variance among the theories. However, while they all have different emphases, they are all developmental

theories and place significant weight on the role of affect and affect regulation in the creation and maintenance of interpersonal relationships. These points are of particular importance to the present study, in that these factors are all addressed by the TAT scale to be used in the assessment of object relations. Before reviewing object relations assessment, though, I will provide a quick sketch of attachment theory and the relationship between internal working models and the representational world of object relations.

D. Relationship Between Object Relations and Attachment Theory

The founder of attachment theory, John Bowlby, was a psychoanalyst and contemporary of Winnicott in Great Britain. Bowlby was trained as a Kleinian analyst, but became increasingly dissatisfied with Klein's emphasis on fantasy and her minimizing of the importance of actual experiences between child and caretaker. Like Fairbairn, Bowlby viewed the need for human contact as the primary human instinct; however, Bowlby drew upon theories of ethology and evolution to support his ideas (Greenberg & Mitchell, 1983). According to Bowlby, the human infant develops a complex "attachment system" to maintain proximity to the primary caretaker during a period of dependence, which is considerably longer than that of other species (Bowlby, 1969). This attachment system is continually activated and deactivated. For example, when a child feels distressed and needs proximity and comfort, the infant will utilize various attachment behaviors to stay close to mother. On the other hand, during periods when the child experiences security, the system is deactivated and the child feels safe enough to explore the environment (Slade & Aber, 1992). Mary Ainsworth, a colleague of Bowlby's, termed this cycling between attachment and exploration "secure base" phenomena (Ainsworth et al, 1978).

It was Ainsworth who set out to empirically prove these phenomena. Her research focus was on different styles of mothering, which appeared to be related to the child's capacity to cope with separations and reunions. To test her hypotheses about differences in attachment styles, she developed a laboratory-based procedure called the Strange Situation (Slade & Aber, 1992; Ainsworth et al., 1978). During the Strange Situation a child experiences a series of separations and reunions with mother, during which the child's attachment behaviors observed. A number of distinct attachment patterns have been categorized from the Strange Situation: secure, anxious-avoidant, anxious-ambivalent, and disorganized-disoriented.[1] Furthermore, studies have found that attachment status remains relatively stable over time (Slade & Aber, 1992).

Given the consistency of attachment styles over time, one might wonder if the child was simply internally representing his relationship with mother. At the core of attachment theory is the concept of "internal working models," which the child develops based upon actual interactions with his primary caretaker. Internal working models are formed in early childhood, but impact relationships throughout one's life. They include aspects

[1]For a full description of attachment classifications, see Slade and Aber (1992) and Main and Hesse (1990).

of self, other, and affect in the dyadic infant-mother relationship (Diamond & Blatt, 1994).

The role of affect in the attachment dyad has been studied extensively by Daniel Stern (1985). Stern posits that representations in the infant are abstracted from moments of actual interaction with mother. The salience of these representations is dependent upon the degree of affective attunement between mother and child. It is affective attunement that leads to a sense of vitality and of a true self. It was actually Bowlby who originally conceptualized affects as crucial to the attachment process (Doane & Diamond, 1994).

Other researchers have also explored the association between internal working models of attachment and organization of affect. A number of studies have found that different patterns of attachment in children and adolescents translate into different patterns of affect expression and modulation in social situations (Doane & Diamond, 1994). For example, securely attached children have been observed to demonstrate less negative affect in peer interactions and were able to modulate negative affects in constructive ways. Both categories of insecurely-attached children had difficulty expressing and containing negative affect in social situations.

In interpreting these findings, Doane and Diamond (1994) suggest that these different ways of expressing and regulating affect are related to one's internalized parental representations. For instance, the internal working model of attachment held by a secure child is one of parents who can hold the entire range of their child's affective experience. This permits the child to fully experience and express negative affects without fear of losing the attachment relationship. This is in stark contrast to the avoidant child, whose parental representation is rejecting and unavailable. These children learn to minimize emotional expression, especially negative affect, in an effort to maintain contact with the parent, as well as to avoid the possibility of rejection. Insecure-ambivalent children have internalized an unreliable, inconsistent parent; consequently, they resort to continual displays of negative affect to gain attention from caretakers.

Cassidy (1994) discusses a behavioral distinction in the display of emotion between the two different insecure attachment styles. Insecure-avoidant individuals are described as affect "minimizers," in other words they look undisturbed and emotionally unaroused. However, a study by Dozier and Kobak (1993) found that despite this calm outward appearance, insecure-avoidant subjects are actually experiencing affective arousal in response to attachment

issues, as measured by galvanic skin response. It is hypothesized that minimizers have learned to inhibit the display of emotions, both positive and negative, in order to maintain attachment to an unresponsive or unavailable parent. On the other hand, Cassidy (1994) describes insecure-ambivalent subjects as affect "maximizers." They are prone to grand displays of affect and lack the capacity to inhibit their expression. Such individuals have adaptively learned to utilize distress as a means of interpersonal connection.

While there is evidence in Bowlby's work of a close link between object relations and attachment theory, there is far from consensus in the psychoanalytic community on this issue. In their review, Diamond and Blatt (1994) cite literature hypothesizing that internal working models differ from the representational world of object relations because they are evolving, dynamic structures and not solely crystallizations of past interpersonal patterns. Internal working models also lack the complexity and detail inherent to psychoanalytic representations. Further, internal working models are based on actual experiences with one's caretakers. In object relations theory, though, internal representations are formed by the interaction of reality and the distortions of reality created by the child. Various object relations theories account for these distortions as

fantasy, drive momentum, or as compensation for inadequate parenting. Therefore, while attachment theory is almost exclusively based on external interactions, object relations theory takes into account the relationship between the child's environment and internal factors in the development of representations.

In conclusion, this brief review of the object relations and attachment literature has highlighted their underlying theoretical bases, as well as the dialogue between the two theories. It is clear that each has made a significant contribution to the understanding of how one develops an internal world, as well as to the respective roles of affects and cognitions in it. By exploring the relationship between internalized representations and external affective exchanges, the present study aims to provide more insight into the internal processes that mediate interpersonal transactions.

E. Assessment of Object Relations

As discussed previously, object relations are unconscious processes; therefore, it can be inferred that projective techniques are particularly useful in the assessment of object relations. In their review of the major empirical approaches to object relations assessment, Stricker and Healy (1990) discuss a number of scoring systems, which can be applied to a variety of projective measures. For example, some researchers have focused on the Rorschach (Blatt et al., 1976; Mayman, 1967; Urist, 1977, 1980), while others have used the TAT (Thompson, 1986; Westen, Lohr et al., 1990; Westen, Ludolph, Block et al., 1990; Westen, Ludolph, Lerner et al., 1990; Wilson & Gedo, 1993). Early memories and dreams have also been studied as indices of object relations (Last & Bruhn, 1983, 1985; Mayman, 1967; Mayman & Faris, 1960). Still others have devised object relations measures based on interview data (Bellack & Goldsmith, 1984; Bellack et al., 1973; Westen et al., 1988).

According to Westen (1991) the TAT is especially useful in the assessment of object relations because of the unambiguously social nature of the stimulus, which easily pulls for subjects to provide detail about characters and relationships. This differentiates the TAT from the Rorschach, which is a much more ambiguous stimulus.

Descriptions of relationships provoked by the TAT cards provide access to cognitive and affective material directly related to how one intrapsychically manages intimate interpersonal relationships. The TAT also blends unconscious, preconscious, and conscious material.

Westen's object relations measure, the Social Cognition and Object Relations Scale (SCORS; Westen, Barends et al., 1990), integrates clinical observation, object relations theory, and developmental social cognition theory. The SCORS assesses four dimensions of object relations: affect-tone of relationship paradigms, complexity of representations of people, capacity for emotional investment in relationships and moral standards, and understanding of social causality. It has been designed for application to a variety of projective data and non-projective narratives, including the TAT, early memories, psychotherapy session transcripts, psychiatric interviews, and stories told to the Picture Arrangement subtest of the revised Wechsler Adult Intelligence Scale (WAIS-R). The SCORS is a highly reliable and valid instrument for the assessment of object relations. It has been validated in a number of clinical and non-clinical populations (Stricker & Healy, 1990). For example, it has found developmental differences in children in complexity, social causality, and emotional investment; borderline subjects are differentiated from both normal and

psychiatric controls, as well as from major depressives. Further discussion of the validity of the SCORS will be presented in the next section.

CHAPTER III

METHODOLOGY

A. Subjects

The subjects for this study were 70 parents who were part of the Yale Psychiatric Institute Family Study (YPIFS; Doane & Diamond, 1994), a longitudinal study of over 50 families with a severely disturbed family member, which was conducted between 1984 and 1991. Its broad goal was to explore multigenerational patterns of attachment, and the impact of attachment disturbances on the emotional climate of a family, with a focus on the expression of affect. A total of 53 patients consecutively admitted to the Yale Psychiatric Institute (YPI) participated in a prospective, longitudinal study of change occurring during a long-term inpatient treatment. Patients were adolescents and young adults with diagnoses of schizophrenia, affective disorder, and/or borderline personality disorder.

Unlike the prior study (Doane and Diamond, 1994), which focused on the inpatients and their families, this study examines only the parents, none of whom had evidence of severe psychiatric illness. Of the 70 subjects in this subsample, 37 were female (53%) and 33 were male (47%). Subjects were drawn from 45 families; nearly three-fourths of which were dual-parent. Thirty-nine percent of the sample had children hospitalized for schizophrenia; the

remaining 61% had children diagnosed with affective disorders and/or borderline personality disorder. The subjects were representative of the larger sample which was predominantly Caucasian (92%), with the remaining subjects African American and Hispanic (6% and 2%, respectively). Socioeconomic status ranged from lower-middle tc upper-middle class.

B. Procedure

As part of the YPIFS, aspects of both patient and family functioning and interaction were studied in a quasi-naturalistic, repeated measures design. At admission, each parent was administered the Structured Clinical Interview for DSM-III-R (SCID; Spitzer & Williams, 1985) for generating DSM-III-R Axis I diagnoses. Each parent also participated in an approximately 2-hour semistructured interview designed to elicit systematic information about family affective styles and the parent's own attachment bonds to his or her own parents. Parents also provided a systematic family history of mental illness. The TAT was administered to each parent at the initial interview and 3 months post-admission.[2] TAT protocols were audiotaped, coded by subject number, and transcribed by persons blind to the study hypotheses. TATs were administered by research project staff, predominantly by research assistants who were postdoctoral psychology fellows at the Yale Psychiatric Institute. All staff had prior training in psychological assessment, including administration and scoring of projective tests. Family laboratory assessments of AS were made at the time of admission, 3 months and 9 months later, and at discharge.

[2]TAT cards administered: 1, 2, 3GF, 6BM, 7BM, 8BM, 13MF.

While not part of the study procedures , a brief description of the setting and treatment modalities at YPI will be provided in this section. At the time the data for this study were collected, the YPI was a long-term (average length of stay: 12 to 18 months), psychodynamically-oriented hospital for severely ill adolescents and young adults. Patients received multimodal treatment, which included individual, group, and family therapy, as well as educational and vocational counseling.

The subjects in the present study participated in weekly family therapy with their children. The general orientation of the family treatment was a mix of object relations and systems theory, but also included some psychoeducation and behavioral techniques. The AS assessment (discussed in the next section) was not conducted during the weekly family therapy. It was not intended to be a therapeutic intervention; however, many family members spontaneously described the experience as therapeutic and more helpful than the family therapy sessions (Doane & Diamond, 1994).

C. Instruments

Affective Style Measure. In the YPI study AS was assessed through a family interaction task, which was developed from Strodtbeck's (1954) revealed differences technique. This method elicits samples of clinically meaningful family affective behavior during an emotionally charged discussion about a current problem or unresolved issue in the family (Doane & Diamond, 1994). These discussions take place both individually (i.e., with the examiner alone with a subject) as well as with the complete family unit. As described by Doane and Diamond (1994), family members are first separated into different rooms, where individual interviews are conducted to identify problem issues germane to each particular family. Once a charged issue is recognized, the interviewer asks the family member to pretend that the person involved in the problem is sitting in the room with him or her and to verbalize the issue while a tape recorder is running. The audiotaped recording of the family member's issue is then taken to the respective family member to whom it was directed, and he or she listens to the statement and is asked to respond. The response is recorded immediately after the initial statement. Two "issue-and-response" sequences are generated for each family member.

Family members are then brought together into a lab, where they listen to one of these audiotaped sequences. The family is directed to discuss the problem for 10 minutes, to express their thoughts and feelings about it, and to try to solve the problem while the experimenter is out of the room. After about 10 minutes the family is asked to discuss the second problem. Problems were obtained from both parents and the patient. One parent-introduced problem and one initiated by the patient were utilized to stimulate discussion. This procedure has been found to generate emotionally meaningful discussion for all family members.

These family interactions were audiotaped and videotaped, and verbatim transcripts were utilized to code for AS (Doane et al., 1985). AS is a coding system designed to capture clinically meaningful affective attitudes and behaviors verbally expressed in a face-to-face interaction (Doane & Diamond, 1994). A unit of analysis is defined as up to six consecutive lines of uninterrupted speech by a single speaker. The unit is ended when a second speaker either interrupted the first speaker or began a distinct reply (Doane et al., 1985). The coding system focuses on three aspects of affective style: criticism, guilt induction, and intrusiveness.

Criticism: *Personal Criticism:* The criticism has one or more of the following qualities: unnecessary or overly harsh

modifiers; reference to broad classes or behaviors; or reference to the person's character or nature. Examples: "You have an ugly, arrogant attitude." "We're just saying the way you act is bad." "Usually your answers have been right off the cuff--quick and phony."

Benign Criticism: The criticism involves lower-key critical comments. It is circumscribed, matter-of-fact, and/or directed toward specific incidents or sets of behaviors. For example, "You don't help with cleaning the house."

Guilt Induction: Statements with a guilt-inducing impact have two components: They convey that the child is to blame or is at fault for some negative event and that the parent has been distressed or upset by the event. Examples: "You cause our family an awful lot of trouble." "And now you've got me feeling bad, because here I thought you were doing so well." "Most of our fights are because of you."

Intrusiveness: Intrusive statements imply knowledge of the child's thoughts, feeling states, or motives when, in fact, there is no apparent basis for such knowledge.

Critical Intrusiveness: The intrusiveness contains a harsh, critical component, for example, "You're not mad; you're just depressed;" "I know that you are feeling upset about what happened last night and trying to hide it, but don't let it ruin your day;" "You won't take your medication because you're afraid it isn't helping, right?"

Neutral Intrusiveness: The intrusiveness has a neutral quality and refers to the patient's emotional states, ideas, or preferences. For example, "You say you're angry at us, but I think you're really mad at yourself."

These AS data are reduced into categories, with each parent assigned to a categorical designation. These categories are based on whether or not the parent uses one of the above negative marker codes--profiles are either benign (no negative markers used in interactions) or negative (at least one negative code used). Within any one parental speech unit, only one code from each major category can be assigned. In other words, the code with the greatest impact takes precedence, i.e., personal intrusiveness over neutral intrusiveness. For the YPIFS, AS was assessed at multiple times during a patient's hospitalization. For the purpose of this study, the AS score from the initial assessment was utilized. This was done to maximize the number of subjects available for analysis, since a few left the study prior to the 3-month reassessment.

Object Relations Measure. The Social Cognition and Object Relations Scale (SCORS; Westen, Barends et al., 1990), a coding system applied to narrative data, was used to assess object relations. The SCORS was used with the TAT data collected on parents at the time their child was admitted into hospital. There are four dimensions to the

SCORS, each of which is designed to measure developmental dimensions of social cognition and object relations: Affect-tone of Relationship Paradigms, Complexity of Representations of People, Capacity for Emotional Investment in Relationships and Moral Standards, and Understanding of Social Causality. Westen and his colleagues conceptualize these factors as distinct but interrelated. Each is assessed using a 5-point scale (7 points for Complexity of Representations[3]), with Level 1 representing the lowest level of response, hypothesized to reflect psychopathology (Westen, Lohr et al. 1990a), and higher numbers reflecting more mature object representation (see Appendix 1 for complete subscale level definitions). With the exception of affect tone, all of the scales appear to measure movement along a developmental continuum. In other words, with age one's capacity for emotional investment increases, understanding of social causality becomes more refined, and representations of people become more complex and differentiated. However, affect tone simply reflects the affective quality of object representations and is not reflective of developmental advance (Westen, 1991).

In brief, **affect tone in relationship paradigms** refers to the extent to which the person expects relationships to

[3]Westen's original scoring manual for the TAT (ORSCS; Westen, 1985, revised 1989) indicates that each subscale be scored on five levels. However, Westen now recommends that the 7-point scale for Complexity of

be destructive and threatening or safe and enriching (Westen, 1991). At the lowest level of the scale, subjects exhibit an expectation that relationships will be marked by malevolence and pain, whereas at the highest level they view relationships as more benign and pleasurable. **Complexity of representations** refers to the extent to which the person can differentiate the self and others and recognizes the complexity and subjectivity of self and others. At the lowest level, subjects cannot distinguish people and perspectives and points of view are confused. At the highest level, subjects demonstrate an understanding of complex psychological processes involved in interactions with others and the environment. The measure of **capacity for emotional investment in relationships and moral standards** reflects the developmental movement from a need-gratifying pattern of emotional investment in people to mature object relations based on mutual love, respect, and concern for others who are valued for their specific attributes. Finally, **understanding of social causality** assesses the logic, complexity and accuracy of attributions about the causes of people's actions, thoughts, and feelings. At the lowest level, subjects are illogical and attributions of interpersonal events are confused,

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Representations outlined in the SCORS manual for interview data be applied to the TAT as well (D. Westen, personal communication).

inappropriate, or highly unlikely. At the highest level, there is an understanding of the role of complex psychological processes in the generation of thoughts, feelings, and actions.

A substantial body of validity research has been accumulated for the SCORS measures and their application to the TAT, interview data, early memories, and the Wechsler Adult Intelligence Scale-R Picture Completion test data. Several studies have used the SCORS for group discrimination. These include distinctions between adult borderlines, major depressives, and normal controls (Westen Lohr et al., 1990); adolescent borderlines, normals, and psychiatric controls (Westen, Ludolph, Lerner et al., 1990); MMPI-classified normals, psychotics, and sociopaths (Porcerelli et al., 1995); clinical and nonclinical college student samples (Fowler et al., 1995); and sexually abused, physically abused, and nonabused clinical controls (Ornduff et al., 1994; Freedenfeld et al., 1995; Ornduff & Kelsey, 1996; Cogan & Porcerelli, 1996). Barends et al. (1990) correlated the SCORS with similar object relations scales developed for use with other types of narrative data (i.e., early memories, psychiatric interviews, and transcripts of psychotherapy sessions) and found significant results. He also reached significance in correlating the SCORS scales with other previously validated instruments, such as Blatt

et al.'s (1979) object representations scale and Loevinger's (1976) Test of Ego Development. In addition, the SCORS predicted social adjustment in clinical and nonclinical samples, as assessed by the Social Adjustment Scale (Weissman & Bothwell, 1976). In an adult clinical sample, affect-tone was found to be significantly correlated with the hostility, paranoia, and interpersonal sensitivity subscales of the SCL-90 9 (Derogatis, 1983), as well as with clinician ratings of nonpsychotic paranoid ideation and interpersonal pathology.

In validating the SCORS as an assessment of developmental object relations, Westen and colleagues (1991) found developmental differences between second and fifth graders and between early and late adolescents, with older children exhibiting greater capacity for emotional investment, more complex representations of people, and greater understanding of social causality. No significant differences were found for affect tone, which is in accordance with Westen's conceptualization of the SCORS scales. In another study of adolescents, Westen, Ludolph, Block et al. (1990) found relationships between object relations and several developmental history variables, such as disturbed childhood attachments.

Subjects' TATs were coded using the SCORS by a Ph.D. clinical psychologist who trained directly with Drew Westen

and had established ongoing reliability in accordance with the guidelines prescribed in the SCORS scoring manual (Westen, 1985, revised 1989). The coder was blind to the hypotheses of this study, as well as to subjects' AS classification. Object relations scores were computed based on summed (Total OR) and mean subscale scores (XSCORS) for each parent, as well as on scores obtained on each of the four individual subscales.

D. Main Hypotheses

The study was designed to examine the relationship between internalized object relations, as measured by the TAT coded by the SCORS, and interpersonal relationships, as assessed through an interactional family task and coded by AS. The various scores of the object relations scales were considered the independent variables, with affective style classification and components the dependent variables.

The following hypotheses, which were formulated prior to the scoring and analysis of the data, are first presented theoretically. They are then stated operationally, referring to the associated scoring subscales of the TAT and AS measures.

Hypothesis 1:

The benign AS group will have a higher developmental level of object relations than the negative AS group.

A) Overall object relations, as represented by XSCORS, the overall mean object relations score, will be higher for the benign AS group than for the negative AS group.

Further, the relationship between affective style and object relations can be explored by examining the object relations and AS subscales. Overall, it is hypothesized that lower scores on SCORS subscales will translate into negative AS. It is also hypothesized that certain object

relations factors may be more influential on AS than others. Since the XSCORS is simply an averaging of the four SCORS subscales, a higher XSCORS score can reflect either consistently high object relations or can be skewed by one or two high subscale scores. Therefore, particular SCORS subscales may be more related to AS than others. Thus, the following hypotheses will also be tested:

B) There will be a significant correlation between all SCORS subscales and affective style category (i.e., AS PROFILE assessed as either benign or negative), with lower levels of object relations (as reflected by low SCORS subscale scores) associated with negative AS PROFILE. The strongest relationship will be found between AS and ATRP (affect-tone of relationship paradigms), followed by CEI (capacity for emotional investment), CRP (complexity of representations of people), and USC (understanding of social causality).

In addition, rather than just examine the AS PROFILE, which relies on the presence or absence of just one negative AS marker to categorize a subject, a summary measure of all the negatively-toned affective remarks (i.e., intrusion, guilt, personal criticism, benign criticism) made during the family task will be computed (ASNEGTOT). Thus, one can get a sense as to the degree of negative AS in the interpersonal situation, which may provide a better reflection of the

general emotional climate of the relationship. Therefore, the following related hypotheses will be tested:

C) There will be a significant correlation between all SCORS subscales and ASNEGTOT, with lower levels of object relations (as reflected by low SCORS subscale scores) associated with higher ASNEGTOT scores. The strongest relationship will be found between ASNEGTOT and ATRP, followed by CEI, CRP, and USC.

Hypothesis 2:

Treatment outcome for patients in families with lower developmental levels of object relations will be worse than those from families with higher object relations.

A) There will be a relationship between mean object relation functioning for each family and course of treatment (measured as either improved, partial, failure), with higher family object relations associated with better course.

CHAPTER IV

RESULTS

The relationships between affective style and object relations, as determined by the SCORS scores for the TAT are presented in this section. First descriptive statistics are presented. These results will be followed by the tests for the major study hypotheses stated in the Chapter III, as well as by some post-hoc analyses.

A. Descriptive Statistics

Baseline TAT protocols were scored for 70 subjects. Nearly two-thirds of the sample was categorized with a negative AS profile. Object relations were well-distributed, with SCORS data reflecting a nonpathological sample. Westen (Westen, Lohr et al., 1990) considers Level 1 scores to be relatively rare and indicative of severe pathology, thus the absence of such scores in these results strongly suggests the lack of pathology in this sample. Complete object relations scores and AS subscale scores are presented in Table 1.[4]

[4]Due to low base rates and frequency counts, some AS subscales have been analyzed as composite scores. AS Criticism takes into account personal criticism, benign criticism, and guilt-inducing criticism; AS Hostility is a measure of hostile criticism. (J. Doane, personal communication).

It was also determined that there were no group differences at baseline based on subject gender or child's diagnoses. These results are presented in Table 2 and 3, respectively.

Table 1

Descriptive Statistics for SCORS and AS Subscales

SCORS Subscale[5]	Mean (SD)	Minimum	Maximum
ATRP	2.84(0.63)	2	5
CRP	3.59(0.94)	2	6
CEI	3.04(0.65)	2	4
USC	2.96(0.62)	2	4
XSCORS	3.11(0.58)	2	4.5
ASNEGTOT	10.49(7.45)	0	32
ASHOST	1.11(2.05)	0	9
ASGUILT	1.23(2.26)	0	11
ASCRIT	6.30(6.22)	0	28

[5]For all tables, the following abbreviations will be used: ATRP=Affect Tone Relationship Paradigm; CRP=Complexity of Representations of People; CEI=Capacity for Emotional Investment; USC=Understanding of Social Causality; XSCORS=Overall Mean OR Score; ASPROF=AS Profile Category; ASNEGTOT=Sum Negative AS Score; ASHOST=AS Hostility Subscale Total; ASGUILT=AS Guilt Subscale Total; ASCRIT=AS Criticism Subscale Total

Table 2

Comparison of SCORS at Baseline by Subject Gender

SCORS Subscale	FEMALE Mean(SD)	MALE Mean(SD)	t(df 68)	p-value
ATRP	2.78(0.63)	2.91(0.63)	0.83	0.41
CRP	3.65(0.95)	3.52(0.94)	0.59	0.56
CEI	3.08(0.68)	3.00(0.61)	0.52	0.60
USC	3.00(0.62)	2.91(0.63)	0.61	0.55
XSCORS	3.13(0.59)	3.08(0.58)	0.32	0.75

Table 3

Comparison of SCORS at Baseline by Child's Diagnoses

SCORS MEASURE	SCHIZOPHRENIA Mean(SD)	OTHER DX Mean(SD)	t(df 68)	p-value
XSCORS	3.01(0.55)	3.17(0.59)	1.12	0.27
CRP	3.52(0.80)	3.63(1.02)	0.47	0.64
CEI	2.96(0.65)	3.09(0.65)	0.82	0.42
USC	2.89(0.64)	3.00(0.62)	0.72	0.47
ATRP	2.67(0.62)	2.95(0.62)	1.89	0.06

B. Tests for the Main Hypotheses

The main hypotheses of the study were all formulated to examine whether subjects with lower levels of object relations functioning exhibited more negative affect in interpersonal interactions. To test these hypotheses, t-tests were computed to evaluate differences between AS groups on the object relations measures, and correlation coefficients were calculated to determine the relationship between affective style and object relations.

Hypothesis 1: Developmental level of object relations by affective style

Mean object relations scores (XSCORS) were determined for each subject by averaging his or her four subscale scores; subjects were then grouped by AS profile (benign or negative). A subject is considered negative AS if he or she uses at least one of the negative AS marker codes in the face-to-face family task. In other words, the presence of just one critical, guilt-inducing, or intrusive remark over the course of the entire interaction leads to a coding of negative AS, regardless of the number of positive and/or supportive comments recorded during the discussion. In addition, mean subscale scores were also computed for each group. Means for each group were compared using t-tests. To evaluate the affective style data, additional measures

were calculated: ASNEGTOT, an aggregate total of the number of negative affect remarks (critical, intrusive, guilt inducing) made during the family task, as well as ASHOST, ASCRIT, ASGUILT, composite measures of AS hostility, criticism, and guilt, respectively. As a measure of the relationship between object relations and affective style, it was hypothesized that:

A) Mean object relations (XSCORS) will be higher for the benign AS group than for the negative AS group, and SCORS subscale scores will be higher for the benign AS group as compared to the negative AS group;

B) SCORS measures will correlate with affective style profile, with lower SCORS scores associated with a negative affective style profile;

C) SCORS scores will correlate with total negative affective style, with lower SCORS scores associated with higher total negative affective style

D) SCORS measures will correlate with AS subscales, with lower SCORS scores related to higher AS subscale scores

The means, standard deviations, and t-values are presented in Table 4. No significant differences were found between AS groups on any of the SCORS measures. As assessed by the SCORS for TAT data, subjects in both AS categories demonstrated statistically equivalent developmental levels

of object relations. Thus, Hypothesis 1A could not be confirmed.

Table 4

Comparison of SCORS Data by AS Profile

SCORS MEASURE	AFFECTIVE STYLE PROFILE BENIGN (n=26) Mean(SD)	NEGATIVE (n=44) Mean(SD)	t (df 68)
XSCORS	3.12(0.58)	3.10(0.58)	0.09
ATRP	2.85(0.67)	2.84(0.61)	0.03
CRP	3.58(0.95)	3.59(0.95)	0.06
CEI	3.08(0.63)	3.02(0.66)	0.34
USC	2.96(0.53)	2.95(0.68)	0.05

To test Hypotheses 1B, 1C, and 1D correlation coefficients were computed (Spearman r, Pearson r, and Spearman r, respectively). AS Profiles were translated into coded scores (1=benign, 2=negative)--the "higher" the score, the more negative the AS. Higher SCORS numbers indicate healthier object relations; therefore, hypotheses would be confirmed by statistically significant negative correlations. However, as presented in Tables 5 and 6, not all subscales correlated in this direction, and those that did were not significant. Only one subscale, Affect Tone, slightly approached a trend toward significance when correlated with Total Negative AS. This was the SCORS

subscale that was hypothesized to have the strongest relationship with AS. However, the p-value was not strong enough to confirm any of the hypotheses.

Table 5

Correlations Between SCORS and AS

SCORS MEASURE	AS PROFILE (Spearman r)	AS NEGATIVE TOTAL (Pearson r)
XSCORS	-0.02	-0.13
ATRP	0.02	-0.18*
CRP	0.01	-0.07
CEI	-0.04	-0.13
USC	-0.01	-0.05

*P=.13

Table 6

Correlations between SCORS and AS Subscales

SCORS MEASURE	AS HOSTILITY	AS GUILT	AS CRITICISM
XSCORS	-0.16	0.08	-0.08
ATRP	-0.12	0.03	-0.16
CRP	-0.13	0.09	-0.04
CEI	-0.16	0.02	-0.09
USC	-0.11	0.08	-0.05

Hypothesis 2: Object relations and course of treatment

For this analysis, a mean object relations score was computed for each family. In other words, instead of considering each parent as an individual subject (as was done for the previous analyses), to test this hypothesis, 2-parent families were condensed into one mean. This was done to provide a general temperature of the object relations environment in the household. This compression yielded an n of 42 families. It was hypothesized that higher family object relations would be associated with better treatment course. A Spearman r correlation was computed; however, no statistical significance was reached. Therefore, Hypothesis 2 could not be confirmed.

Finally, a regression analysis was run to determine which factors, if any, might be contributing to negative AS. The regression model was not significant, nor did it account for a large amount of variance. However, the parameter estimate for patient diagnosis (i.e., diagnosis of child as schizophrenic or other) did show a trend toward significance (ß=-1.04, p=.09).

C. Post-hoc Analyses

The original analyses were run with baseline SCORS and AS data. The rationale for this was to capture a snapshot of the individual subjects and the family emotional climate at one given point in time. However, the argument could be made that at hospital admission, the family is in more of a crisis mode, and that a more representative measure of family interpersonal activity may be gathered after the chaos has calmed a bit. Therefore, the baseline SCORS data were reanalyzed with corresponding 3-month AS data. However, 3-month data were not available for all subjects, resulting in a smaller sample size of 53 subjects. No statistically significant results were found, other than a correlation between 3-month AS Hostility and Capacity for Emotional Investment ($r=-0.26$, $p=0.05$).

Similarly, the question was raised as to whether there was any fluidity in subjects' affective style, and if so, its relationship with object relations. The hypothesis was that subjects with healthier object relations would demonstrate less negative affective style at 3 months when compared to baseline. First, a within-subjects t-test was computed to compare subjects' AS over time. While there was a reduction in total negative AS, only a trend could be confirmed rather than statistical significance ($t=1.89$, $p<.10$). The change in total negative AS from baseline to 3

months was then correlated with the SCORS data, and a Pearson coefficient was computed. Again, while there was overall improvement in total negative AS (mean=2.66), the correlation was not statistically significant.

Given the results of the regression model, i.e., a trend toward significance in the parameter of child's diagnosis, a final series of post-hoc correlations between AS and SCORS data were run separating the subjects by this factor. These analyses were done utilizing both the baseline and 3-month AS data. Results are presented in Tables 7, 8, 9, and 10. No significant group differences were found in either object relations or affective style. However, there were some significant correlations, which will be highlighted further in this section. All results, though, must be interpreted cautiously due to their post-hoc nature. Given the number of correlation coefficients computed, it is important to keep in mind the possibility hat any significant results may just be due to chance.

First, group means for object relations and baseline total negative affective style were compared using t-tests. There was a trend towards significance in the difference between total negative affective style, with parents of schizophrenic patients demonstrating higher total negative AS than those in the nonschizophrenic group (t=1.91, df(68), p=.06). A Chi-square analysis of AS profile by child's

diagnosis yielded no group differences. Thus, it can be concluded that the groups were statistically equivalent at baseline with regards to overall level of object relations and affective style.

As seen in Table 7, a significant negative correlation was found in the schizophrenia group between the 3-month AS profile and mean object relations, as well as between 3-month AS profile and complexity of representations of people and capacity for emotional investment in relationships. Thus, the finding supports the hypothesis that higher functioning on certain aspects of object relations is associated with a more benign affective style, but does so only for parents of schizophrenic adolescents and young adults.

Table 7

Spearman Correlations of SCORS with AS Profile by Child Diagnosis

SCORS MEASURE	SCHIZOPHRENIA BASELINE (n=27)	SCHIZOPHRENIA 3-MONTH (n=21)	OTHER DIAGNOSES BASELINE (n=43)	OTHER DIAGNOSES 3-MONTH (n=32)
XSCORS	0.10	-0.47*	-0.09	0.09
ATRP	0.11	0.06	-0.02	0.03
CRP	0.14	-0.49*	-0.05	0.08
CEI	0.08	-0.52*	-0.10	-0.06
USC	0.11	-0.30	-0.08	0.13

*p<.05

Table 8

Pearson Correlations of SCORS with Total Negative AS by Child Diagnosis

SCORS MEASURE	SCHIZOPHRENIA BASELINE (n=27)	SCHIZOPHRENIA 3-MONTH (n=21)	OTHER DIAGNOSES BASELINE (n=43)	OTHER DIAGNOSES 3-MONTH (n=32)
XSCORS	0.28	-0.15	-0.30[b]	0.11
ATRP	0.08	0.04	-0.26	-0.13
CRP	0.37[c]	-0.22	-0.25	0.16
CEI	0.29	-0.39[d]	-0.34[a]	0.05
USC	0.11	-0.30	-0.08	0.13

[a]p<.05; [b]p=.05; [c]p=.06; [d]p=.08;

Table 8 presents the results of the correlations of SCORS data with both baseline and 3-month total negative affective style. Again, these analyses separate subjects by child's diagnostic classification. In the parents of nonschizophrenic patients, there are significant correlations between baseline total negative AS and the mean SCORS score and CEI subscale. In the parents of children with schizophrenia, we see a strong trend toward significance in the negative correlation of CEI with 3-month total negative AS. In addition, there is a weaker trend toward a positive relationship between the CRP subscale and baseline Total Negative AS. This finding is contrary to the original study hypothesis, since it indicates that lower object relations functioning in the realm of self and other differentiation is associated with more benign affective style.

In fact, all relationships between object relations subscales and baseline AS measures are positive correlations in the schizophrenia group. However, when computed with 3-month AS data, all correlations except affect tone change direction. Also interesting to note is the exact opposite pattern in the nonschizophrenia group—in these subjects, all correlations at baseline are negative, and nearly all switch to positive at 3 months.

When the groups are separated by child diagnosis, and the AS subscales are correlated with object relations measures, some interesting phenomena emerge. Most notable is the fact that most of the significant correlations occur at baseline for the nonschizophrenia group, but do not appear until the 3-month analyses for the schizophrenia group. Except for the positive correlation of baseline AS guilt with CRP in the schizophrenia group(as was found above with baseline total negative AS), all significant correlations were negative. These results demonstrate support for the hypothesis that more developed object relations are associated with less negative affective style. Complete results are presented in Tables 9 and 10.

Table 9

Spearman Correlations Between SCORS and Baseline AS Subscales by Child Diagnosis

	AS SUBSCALES					
	SCHIZOPHRENIA (n=27)			OTHER DIAGNOSES (n=43)		
SCORS MEASURE	HOST	GUILT	CRIT	HOST	GUILT	CRIT
XSCORS	0.10	0.29	0.19	-0.31[a]	-0.10	-0.26[d]
ATRP	-0.11	0.03	0.02	-0.10	-0.03	-0.31[a]
CRP	0.10	0.42[a]	0.18	-0.25[e]	-0.10	-0.17
CEI	0.10	0.24	0.20	-0.31[b]	-0.14	-0.27[c]
USC	0.13	0.08	0.06	-0.27[c]	0.04	-0.12

[a]p<.05; [b]p=.05; [c]p=.08; [d]p=.09; [e]p=.10

Table 10

Spearman Correlations Between SCORS and 3-Month AS Subscales by Child Diagnosis

	AS SUBSCALES					
	SCHIZOPHRENIA (n=21)			OTHER DIAGNOSES (n=32)		
SCORS MEASURE	HOST	GUILT	CRIT	HOST	GUILT	CRIT
XSCORS	-0.17	-0.41[c]	-0.38[a]	-0.01	0.21	0.09
ATRP	0.10	0.06	-0.03	-0.01	0.09	-0.30[e]
CRP	-0.20	-0.43[b]	-0.45[a]	0.03	0.13	0.09
CEI	-0.43[b]	-0.26	-0.46[a]	-0.16	0.10	0.00
USC	0.07	-0.36	-0.17	0.06	0.19	0.22

[a]p<.05; [b]p=.05; [c]p=.07; [d]p=.09; [e]p=.10

D. Summary of Results

Statistical tests of the planned hypotheses found no significant relationships between subjects' affective style and object relations as measured by the TAT. Therefore, none of the original hypotheses were confirmed by this study.

However, post-hoc analyses of the data, which separated the subjects by child's diagnostic classification, did yield some significant results. Higher overall level of object relations and capacity for emotional investment in relationships were significantly associated with lower baseline total negative affective style in the nonschizophrenia group. In the schizophrenia group, significant relationships were found between overall object relations, capacity for emotional investment, and complexity of representations of people and 3-month AS profile. Again, better object relations was reflective of less negative affective style.

When the object relations scales were correlated with the AS subscales, a similar pattern emerged between the groups. Specifically, significant relationships were found among some of the subscales at baseline but not at 3 months for parents of nonschizophrenics. Hostility and criticism were the most frequently correlated subscales for this group.

Significance in the relationship between OR and AS subscales did not emerge in the schizophrenia group until the 3-month data point. In these subjects, criticism and guilt were the most correlated subscales; however, hostility did demonstrate a significant relationship with an object relations subscale (CEI), as well.

Looking at the overall pattern in the data and not just the significant findings, there was a shift from positive to negative correlations in the schizophrenia group from baseline to 3-months; however, the results shifted in the exact opposite direction in the parents in the nonschizophenia group. In other words, in the latter subjects, at baseline higher levels of object relations were associated with less negative affective style, but at 3 months better object relations functioning was correlated with more negative affective style.

The post-hoc nature these analyses, though, limit the interpretation of the results. Due to the number of correlations and t-tests performed, the significance of any results must be considered cautiously. Finally, the difference in group size between the schizophrenia and nonschizophrenia families may also limit the power of the statistical analyses.

CHAPTER V

DISCUSSION

A. Introduction

This study explored whether levels of object relations, as assessed by the TAT, were significantly related to affective style, as measured by the expression of affect in a face-to-face family interaction task. The hypotheses were formulated on the idea that the level and quality of object representations impact the style of affect expression in interpersonal relationships. In other words, the study explores the interplay between the intrapsychic and external worlds. It was hoped that an investigation of the relationship between a well-validated measure of internalized object representations and a validated procedure for assessing family affective exchanges would yield significant associations among the various object relations and affective style measures. Such information would provide insight into the factors that mediate the quality of one's interpersonal relationships, which could be translated into clinical interventions.

As reported in the previous section, the original study hypotheses were not confirmed. The levels of object relations were statistically equivalent for subjects in both affective style groups. In addition, no object relations

subscales demonstrated significant correlation with any of the affective style measures. However, post-hoc analyses of the data did show significant results when subjects were regrouped according to their child's diagnostic category. Higher overall level of object relations was associated with more benign affective style in both groups; however, this finding did not emerge in the schizophrenia group until the 3-month AS assessment. Further, the relationship was significant in the nonschizophrenia group only at baseline. A similar pattern emerged when object relations and affective style subscales were analyzed. While the implications of these post-hoc analyses will be discussed later, this section will begin with a discussion of why the original hypotheses did not yield significant results.

Perhaps the lack of significant results can be attributed to the somewhat global nature of the main study hypotheses. In some way, the absence of a relationship between one's developmental level object relations and external interpersonal behaviors is not all that startling and speaks to the richness and specificity of human psychology. Given the complexity of our internal world, it might have been too simplistic to attempt to capture a snapshot of one's modal level of object relations and typical affective exchanges using just one measure. While at first blush, the findings seem counterintuitive, further

exploration of the results reveals the complexity of the data, as well as the underlying processes they represent. These issues will be further discussed later in this section.

In addition to the explanation that the hypotheses may have been too global, or simply incorrect, there are other possible reasons why the study did not turn out as expected. The two that will be explored below are: 1) sampling problems, including selection bias and sample size; and 2) measurement problems, specifically the appropriateness of the instrument and scales selected (the TAT and SCORS, respectively), as well as their administration.

B. Sampling problems

As stated in the methods section, the subjects for this study were drawn from a larger sample of families who participated in the Yale Psychiatric Institute Family Study (YPIFS; Doane and Diamond, 1994). Specifically, the subjects for the present investigation were parents of severely psychiatrically-ill adolescents and young adults. Even though the parents were screened and found to be free of gross psychopathology (a finding confirmed by subjects' relatively nonpathological object relations functioning), the question can be raised as to the level of family dysfunction and its impact on the results. This is clearly a skewed sample, which is not reflective of the general population. The lack of a control group in this study, for example a group of parents of nonhospitalized children, makes it impossible to tease out the influence of a family member's psychiatric hospitalization on one' affective style. In addition, while the initial sample size of 70 was large enough to provide statistical power and support a regression analysis, data existed for only 53 subjects at the 3-month data point. Whether the missing 17 subjects were lost to attrition, their children were discharged from the hospital, or the data were simply lost during the decade since collection cannot be determined. Again, this may be

suggestive of some type of sample bias that could have influenced the study findings.

C. Measurement problems

The issue of flaws in measurement in this study is one that requires extensive exploration. This discussion will cover the application of the TAT to assess object relations, its use and administration in the YPIFS, as well as a discussion of Westen's SCORS measure.

The TAT is considered to be a valuable source of information in the assessment of object relations because of the unambiguously social nature of the TAT task--the subject is asked to construct fantasy stories about pictures of human beings in social situations. Further, the TAT taps into unconscious material, which provides information about one's ability to relate to others, one's capacity for experiencing others, and one's manner of experiencing a broad range of interpersonal relationships (Bellak, 1986). According to Rapaport, Gill, & Schafer (1968), the TAT gives an assessment of an individual's experience of his own world, as well as of the role he plays in it.

However, the question has been raised that perhaps the TAT is merely a reflection of socioeconomic status, intelligence, or verbal abilities. These issues have been addressed in the SCORS validation studies, which were presented above, and found not to be significant. For example, Westen et al. (1991) found no correlations between verbal ability (as measured by the vocabulary subtest of the

WAIS-R) or verbal productivity and developmental levels of object relations. While it was not an analyzed variable in the present study, an anecdotal review of the TAT protocols reveals many instances where subjects with low object relations scores demonstrated high verbal productivity. Take the following response to Card 1 by a woman with a mean object relations score of 2 (the lowest range in the sample). Even though it is extremely verbose, there is a paucity of object representation, interpersonal relatedness, and integrated affect.

> Just reading a book, a boy just reading a book. (examiner prompts with instructions) Well, he's just reading a book and he looks like he's in deep thought and um he, whatever he's reading um doesn't seem like something that's um something exciting or anything. By the look of his face I think he's feeling sad uh about I mean by the looks of him, like he's sad about what he's reading, what he's feeling and uh that's all I can say. I can't think of any story that- I I don't know maybe my imagination's not that good. Probably, probably reading something um- you mean you want me to tell you what I think he's reading in this story? (just make up a story) Maybe he's thinking about a far away land, he's looking at a some, some tree that he's looking at and oh probably wishes he was there. An uh I don't know I really can't I can't make up anything. (how does the story end) I don't know, like maybe he wishes he was over wherever he's looking at, like maybe he wished he could be there. I don't know really, I guess I'm not very good at this.

Since the TAT itself appears to be a valid instrument in the assessment of object relations, perhaps there is an artifact in the present study that affected its application as an object relations tool. There are reasons to believe

that the object relations results do not accurately reflect the functioning of this sample. Persons very familiar with the study population confirm that many subjects exhibited extremely poor object relations (D. Diamond, M. Walker, personal communication). However, the object relations data collected in this study are not reflective of a low-functioning group.

The discussion will now turn to the use and administration of the TAT in this study as one possible explanation for these findings. Even though the use of the TAT fulfilled all requirements for administration and scoring, i.e., number of cards, prompting, transcription, scorer training and reliability, questions still remain as to the nature of its administration in the present study.

First, TAT data were collected prior to the formulation of the study hypotheses, and the use of archival data can present some problems. Although enough cards were administered and the TAT stories were sufficiently prompted such that the SCORS system could be applied, this was not the intended use of the TAT data in the YPIFS. The TAT was administered solely for the purpose of assessing communication deviance. It is possible that a probing system designed specifically for object relations assessment might have provided better measurement of the range of subjects' functioning. The argument can be made that had

the TAT been administered with a more clinical application in mind, the protocols might have yielded more robust object relations data. Along these lines, had the hypotheses been determined prior to test administration, a battery of cards could have been selected to especially pull for object relations themes. Furthermore, given that the study was designed to examine an interpersonal transaction within a family setting, the results may have been more robust had the TAT protocol focused on family themes.

Similarly, the question must be raised as to the appropriateness of utilizing affective style as an assessment of a person's global interpersonal functioning. Specifically, this study compared internal representations, as measured by an individual projective test with interpersonal expression of emotion, which was coded based on an intense, face-to-face family interaction. While AS is a well-validated system for studying affective behavior in a family setting (Doane & Diamond, 1994), it may be important to consider the impact the family system has on one's individual affective style. Even though individuals were assessed as independent subjects within the family, family dynamics, particularly family stress (which was the case during the AS interaction task), may exert strong influence on an individual. Perhaps had the AS task been modified into a one-on-one discussion of an idiosyncratic,

emotionally charged topic between an individual subject and an investigator, the study would have yielded different results. A search of the literature reveals no studies of affective style across settings, or comparing repeated measures of affective style with different configurations of family members. An interesting area for future research would be to study an individual's expression of affect in various situations, for instance in the family, in a relationship dyad, with friends, in a work setting, etc. Such research would provide insight into the question of whether affective style is an enduring character trait or a transient reaction to environmental factors. In order to better understand the impact of the family system on affect expression, if it were available, it might have been fruitful to reanalyze correlations utilizing object relations and expressed emotion data. A comparison of OR-EE and OR-AS findings may yield interesting results, specifically in terms of the potential relationship between parental attitudes (EE) and behaviors (AS).

Returning to the critique of the TAT, the impact of the research setting on subjects' performance cannot be ignored. It is important to note that the TAT used in this study analysis was administered shortly after subjects' children were admitted to a psychiatric hospital--clearly a time of stress and chaos for subjects and their families. This

raises the question as to the influence of environmental factors on one's TAT record. Bellak (1993) reviewed the effect of current experience on TAT stories. He discussed experiments where aggression, depression, and joyfulness are induced in subjects, as well as a study of persons on death row, and in all instances found no significant impact on subjects underlying personality structure. However, none of these studies provided any formal assessment of object relations. Unfortunately, very little literature exists on shifts in object relations utilizing the TAT. Schneider (1990) utilized the SCORS for interview data, which shows internal consistency with the SCORS for TAT data, to assess changes in object relations over the course of a brief psychotherapy treatment. Significant increases in complexity of representations and capacity for emotional involvement, which were sustained through follow-up, were found. While brief psychotherapy is not analogous to the stress of hospitalization, this finding does reinforce the fluidity of object relations functioning in adults over short periods of time, and therefore is relevant to the present study.

Another study (Kavanaugh, 1985) used the Rorschach to explore shifts in object relations over the course of psychotherapy. Like Schneider, Kavanaugh reported changes in object relations scores towards more benign

representations and higher developmental level scores. Other researchers have utilized the Rorschach to study the stability of object relations in response to stress. For example, Tuber et al. (1989) explored short-term shifts in object relations in a sample of children awaiting surgery. As assessed by the Rorschach, there was significantly more malevolence in the protocols of the surgical group as compared to a matched control sample. However, since children's object representations might be expected to exhibit less stability than those of adults, any inferences to the impact of stress in an adult population, such as in the present study, must be made cautiously.

It could be hypothesized that the TAT stories elicited from subjects in the present study may not be representative of their true object relations functioning. Perhaps, because of the stressful circumstances surrounding the evaluation, as well as the strain potentially induced by the research setting, subjects responses were more constricted than they would have been under more relaxed conditions. While the TAT is designed to tap into unconscious material, perhaps these subjects reacted to the strain of their children's hospitalization by shoring up their defenses, thereby blocking access to more primitive object relations functioning. The issue of stability of object relations in an adult population is an important question that warrants

future research. Even though the TAT was administered at two time points, baseline and 3 months, for the YPIFS, 3-month data was not available for analysis in the present study. Therefore, it is beyond the scope of this investigation to make any conclusive statements about shifts in short-term object relations functioning due to stress. However, this issue could be addressed in a future analysis by scoring the 3-month TATs and comparing them to the baseline object relations data.

The final area to be explored in this section is the validity of the SCORS in the assessment of object relations using TAT data. While a review of the literature found Westen's scale to be the most valid and reliable of the TAT object relations measures, most of the data supporting its use has been generated by Westen and his colleagues. Further, even though comprehensive manuals and exercises have provided high interrater reliability among trained scorers, a protocol has not been developed for administration of the TAT. For instance, the studies in the published literature base utilize anywhere from 3 to 7 cards, and there is no evidence of standardization of prompting from the examiner. Such factors could impact the validity and reliability of the measure. In addition, it is unclear if the four subscales are actually measuring distinct facets of object relations. A regression analysis

performed on the SCORS data collected in the present study revealed a high degree of multicolinearity among the four subscales.

Westen (1993) acknowledges this correlation problem, as well as other issues that have emerged as more investigators utilize the SCORS to assess object relations. As a result, it has recently been substantially revised into the SCORS-Q (Westen, 1993). A few of the changes, which relate to problems confronted in the present study will be highlighted. First, instead of using a 5- or 7-point scaling system across four dimensions, the SCORS-Q has been expanded into six categories, with approximately 100 ratings dimensions. While one of the new categories is a simply a subdivision of the SCORS capacity for emotional investment, a new measure of dominant interpersonal concerns has been added. This measure allows for an assessment of thematic content of the TAT stories, which is lacking in the SCORS. This object relations factor is of particular interest to the present study, given the focus on interpersonal affective exchanges within the family. Further, the Q-sort process allows items that are intercorrelated to be deleted. The Q-sort procedure also provides standardization of language, which minimizes the possibility of idiosyncratic interpretation of the data and makes the scoring much less subjective. While the SCORS-Q appears to be provide a more

comprehensive assessment of object relations using TAT data, it still is relatively unvalidated and scorers have experienced difficulty establishing reliability on the measure.

In summing up the discussion at this point, in theory the TAT appears to be a valid and reliable instrument for the assessment of object relations. However, its use in the present study, specifically, card choice, administration techniques, and the research setting all could have contributed to the lack of significant findings in the present study. Furthermore, important questions have been raised as to fluidity of object relations functioning in this sample, due to the stress of hospitalization of a family member. Finally, while somewhat well validated in prior research, there are significant problems with the SCORS as an object relations assessment measure. Significant revisions have been made to the scoring system; consequently, the use of the SCORS could have contributed to the insignificant findings. Perhaps, the findings of the present study could have been more robust had the TAT been assessed with an additional object relations scoring system. Another object relations score could have served to validate the SCORS and/or provide a more comprehensive view of the complex process of internalized object representation. The

discussion will now turn to the results of the post-hoc analyses.

D. Post-hoc analyses

The discussion of post-hoc findings will cover two broad areas. First, in a continuation of the prior section, the issue of fluidity of affective style in response to environmental stress will be presented. The discussion will then shift to an exploration of the significant findings when the groups were analyzed by child's diagnosis.

As reported in the results section, the original hypotheses were retested utilizing 3-month AS data. It was thought that perhaps the crisis of hospitalization would impact the AS assessment. However, the comparison of baseline and 3-month AS data revealed only a trend toward significance in the reduction of total negative AS. In their more thorough analyses of the Yale Psychiatric Institute Family Study AS data, Doane and Diamond (1994) found a similar trend through 9 months of hospitalization. Among the conclusions reached by the YPIFS was that AS reflects enduring qualities in the parents rather than transient emotional states in response to dealing with a severely psychiatrically-ill family member. It was this finding that led the investigators to hypothesize that the persistent pattern of negative AS in an individual may be related to his or her internal world. The YPIFS explored this question from an attachment theory perspective.

Attachment was assessed using a 5-minute speech sample (FMSS), which has been found to be a reliable and valid measure of attachment (Diamond & Doane, 1994). The FMSS task requires a subject to describe his relationship with his children, as well as with each of his own parents. Each attachment dyad is assessed independently by its own FMSS, and all descriptions are spontaneous and recorded without interruption. Six attachment categories emerge from the FMSS--three (positive secure, negative, and ambivalent) roughly correspond to Ainsworth's (Ainsworth et al., 1978) classifications of secure, insecure-avoidant, and insecure-ambivalent; the final three (overinvolvement, parentification, and triangulation) capture attachment styles that develop in later childhood and adolescence. The YPIFS did find significant associations between the degree of negative affective style and disturbed intergenerational parental attachments (Diamond & Doane, 1994).

As outlined in the literature review, there is a theoretical link between attachment theory and object relations, which has fueled much research into the relationship between internal working models of attachment and self and object representations. For example, Levy et al. (1998) found insecure attachment associated with more malevolent and less differentiated object representations. However, other studies (e.g., Diamond et al., in press) have

shown discrepancies between the nature and quality of internal working models of attachment on the one hand, and self and object representations on the other.

Given the previously demonstrated relationship between attachment and affective style in present sample as part of the Yale Psychiatric Institute Family Study, a post-hoc analysis was conducted to explore the possible association between attachment and object representation. Correlation coefficients were computed between the SCORS TAT object relations measures and the FMSS attachment data; however, the analyses yielded no significant associations. The search for reasons for such findings leads to an examination of the 5-minute speech sample task. It can be hypothesized that the nature of the FMSS, i.e., its directness, may be somewhat "shocking" to a subject, thus painting a clearer picture of one's unconscious processes. In other words, the act itself, of talking spontaneously for 5 minutes without interruption or prompting about one's children and/or parents, surprises the unconscious and mitigates any defenses. Projective tests, on the other hand, are designed to both break down and consolidate defenses, in an effort to provide insight into one's underlying character structure over the course of a somewhat stressful protocol (Rapaport et al., 1968). The successful completion of the TAT task of making up a story about a picture calls upon higher level

defenses, such as intellectualization and rationalization, which may block access to the unconscious. Perhaps for some subjects, the TAT protocol only scratched the surface and they were unable to move beyond conscious and preconscious material. Furthermore, in the FMSS the subject focuses on only one person at a time, for example the relationship with mother. In response, the subject must conjure up object representations vis-a-vis that one person. The TAT, on the other hand, elicits a much broader set of representations, including mother, father, siblings, and friends. Perhaps, due to the different natures of the tasks, the internal processes assessed by the FMSS are distinct from the representations obtained by the TAT; consequently, the present study was unable to find any correlations between the two measures.

The TAT findings of the present study are consistent with other measures used in the YPIFS project designed to tap into conscious and preconscious processes (Diamond & Doane, 1994). For example, the Kreisman Scale of Rejecting Attitudes (Kreisman et al., 1979), which assesses parents' preconscious and conscious negative attitudes toward their children did not correlate with AS data, nor did it predict treatment outcome. Further, it was only the FMSS of parents talking about their own parents that demonstrated significance with AS; the FMSS findings of parents talking

about their children were not significant. In explaining these results, Diamond and Doane (1994) hypothesize that when parents talk about their children, they are revealing more conscious and preconscious material. It is not until they are asked to describe their own parents that the more unresolved, unconscious material emerges. It is this disturbed attachment history that is reenacted and recreated with their own children through negative affective reactions.

Perhaps a clearer object relations picture could have been obtained with an alternative projective test. It is hypothesized that the Rorschach inkblots might have provided access to the more unconscious material that was left untapped by the TAT. The Rorschach is similar to the FMSS in the sense that it is a more shocking task for the subject. The Rorschach confronts a subject with a series of unfamiliar and ambiguous stimuli, and it is typically more difficult for a patient to defend against the deeper unconscious material it is thought to stimulate. Unfortunately, the YPIFS study design did not include administration of the Rorschach test to individual subjects. However, investigators did administer a family Rorschach, which consisted of showing the family two cards and having members reach consensus on percepts. There is little literature supporting such an application of the Rorschach;

consequently, these data could not be evaluated in the present study.

While the original findings of the YPIFS did not find negative affective reactions in the family linked to the course or nature of the child's psychiatric illness, the post-hoc analyses of the present study did yield some significant findings related to the child's diagnosis. When data were analyzed separating the groups by schizophrenia and nonschizophrenia diagnoses, significant results emerged. Correlation analyses suggest an association between internalized object relations and an interpersonal world characterized by criticism in parents of children diagnoses with schizophrenia. In the nonschizophrenia group, hostility and criticism had the strongest association to the object relations scales. Recent research on expressed emotion has focused on the pathogenic nature of criticism (e.g., Hooley & Licht, 1997; Barrowclough et al., 1994); therefore, it is not surprising that this AS subscale is associated with poorer object relations in both family subgroups.

Recent developments in the treatment of borderline patients and their families also support the findings of the current study. Gunderson (Gunderson et al. 1997; Gunderson & Lyoo, 1997) discusses a psychoeducational treatment approach designed to create a less hostile family

environment with increased affective expression. He, too, describes the pathogenic nature of criticism and hostility. Further, the most common borderline family category according to Goldstein (1990) is the "overinvolved family," which is characterized by intense, overt hostility and conflict. Therefore, it was not surprising to see the significant associations between hostility and almost all object relations subscales in the nonschizophrenia group, most of which were borderline families. In addition, total negative AS, which includes a measure of intrusive statements, also significantly correlated at baseline in this group.

Along these lines, another interesting post-hoc finding was that while parents of schizophrenics significantly reduce the number of intrusive statements over the course of 3 months ($t=2.13$, $df=20$, $p=.05$), there was a trend for parents in the nonschizophrenic group to make more intrusive remarks at 3 months than at baseline. Many believe that overinvolvement, along with emotional neglect, are the underlying parental dynamics in borderline families (e.g. Gunderson, 1984; Zweig-Frank & Paris, 1991).

Both diagnostic groups demonstrated relationships between the capacity for emotional investment and AS subscales; however, in the schizophrenia group significant correlations also were found in the capacity of

representations of people. Perhaps this facet of object relations has some role in the mediation of the interpersonal expression of negative affect. The CRP subscale was designed to assess the extent to which one clearly differentiates the perspectives, and recognizes the complexity and subjective experience, of the self and others. It can be hypothesized that persons who have developed internalized object representations that take into account the psychological complexities of self and other may be better equipped to understand others' behaviors as part of an enduring character, which in turn may lead to less hostility and criticism in affectively-charged exchanges. It is interesting to note that at baseline, there was a trend towards a positive association between the CRP subscale and total negative affective style. In other words, better self/other differentiation was associated with more negative affective style. By 3 months, this had evolved into a negative correlation, but was not statistically significant. As mentioned in the methods section, families in the study did participate in weekly family therapy. It is hypothesized that the family therapy helped parents become more differentiated from their children, which gave them the necessary perspective to appreciate their children's psychological complexities, as

well as the nature of their children's mental illness, which led to less expression of negative affect.

This finding concurs with the literature on expressed emotion and specifically with attributions relatives make about the causes of a family member's illness and problem behaviors. For example, Brewin et al. (1991) found that highly critical or hostile family members believed that the patient should have more control over his problematic behaviors and attributed the problems to personal causes. In other words, they perceived the source of the problem was due to something unique to the patient, rather than being a more general problem of all patients with schizophrenia. These results were further elaborated by Barrowclough et al (1994). In addition to demonstrating that high EE relatives were more inclined to interpret the patients' problems as being caused by factors internal to the patient, her study teased apart the EE criticism and hostility subscales. Specifically, high levels of criticism were related to the perception that patients could control their undesirable behaviors, whereas hostility was more associated with the idea that something idiosyncratic about the patient caused the problems. Barrowclough et al. also found that hostile relatives made more attributions that held the patient responsible than did nonhostile, critical relatives. This attribution pattern appears to hold for nonpsychotic

illness, as well, with similar results demonstrated by Hooley and Licht (1997) in a study of unipolar depressed patients and their spouses. Thus, previous research provides some support for the hypothesized role of hostility and criticism in the development of an individual's capacity for representation of others as demonstrated in the present study.

The other phenomenon of note in the post-hoc analyses is the fact that the significance of the results in the diagnostic subgroups was dependent on the AS data set used. Specifically, while associations in the nonschizophrenia group were present utilizing the baseline AS data, significant findings did not emerge in the schizophrenia group until the 3-month AS assessment. In addition, the nonschizophrenia group lost its significant correlations at 3-months. These are somewhat strange findings given the fact that any within-subjects changes in AS from baseline were not significant. This held true whether subjects were taken as a whole or analyzed separately by child's diagnostic category, and for both total negative AS and all individual AS subscales. Further, there was an interesting pattern in the data with a shift from positive to negative correlations in the schizophrenia group from baseline to 3-months; however, the results shifted in the exact opposite direction in the parents in the nonschizophenia group. In

other words, in the latter subjects, at baseline higher levels of object relations were associated with less negative affective style, but at 3 months better object relations functioning was correlated with more negative affective style.

The data trends in the schizophrenia group appear to make some intuitive sense. While information about level of clinical improvement over the 3 months was not available for analysis, family therapy was conducted weekly with these parents and their children. As stated earlier, perhaps these interventions helped the parents understand the nature of their children's schizophrenia, which may have translated into less expression of negative affect in family interactions. In addition, it can be expected that the overall family environment stabilized over the course of the initial 3 months of treatment. Perhaps the lack of relationship between the internal and external worlds of the parents as assessed at baseline was the result of having to relate to a psychotic child in the household. After this psychotic influence was removed for 3 months, it can be hypothesized that the parents were able to respond affectively in a way that was more reflective and related to their true level of object relations functioning.

However, more puzzling and, perhaps, more interesting are the post-hoc findings in the nonschizophrenia group. In

these parents, their affective exchanges at baseline were significantly negatively correlated. At 3 months, though, object relations levels and affective style lost their significant associations and, in almost all cases, shifted to a positive correlation. Perhaps these results in the nonschizophrenia group can be explained by exploring the family dynamics that potentially underlie the situation.

From a family systems perspective, there may have been a need is these families—either unconscious or conscious—to keep their child in the ill position. It can be hypothesized that these parents experienced guilt at the time of their child's admission to hospital, which may have broken down the need to maintain the "identified patient" family dynamic. Under the stress induced by the hospitalization, as well as the conscious and unconscious guilt these parents may have felt over their role in their child's illness and inpatient admission, the family dynamic to be hostile and blamecasting (as discussed earlier in this section) may have been inhibited. Under these circumstances, perhaps parents with higher object relations functioning were better able to inhibit these impulses, thus leading to the expected negative correlation at baseline.

However, after 3 months of treatment, perhaps because the child improved or frustration over the lack of improvement, the family dynamic reasserted itself, and there

were more negative affective remarks made during the assessment. Thus, the expected correlation was lost, possibly due to subjects with higher developmental object relations expressing more negative affect. Further exploration of this hypothesis is warranted and would require examining the level of clinical improvement over the first 3 months of treatment, as well as reanalyzing the data sorting the parents by level of object relations functioning in addition to their child's diagnosis.

The question can be raised as to why this phenomenon is present only in the nonschizophrenia group. Perhaps this is due to the formulation of schizophrenia as a more biological illness than borderline personality or affective disorders, which were the two diagnoses comprising the nonschizophrnia group. It is important to remember that the data for the present study were collected from 1984 to 1991, a time when neurobiologic and genetic theories of mental illness other than schizophrenia were just beginning to gain acceptance amongst clinicians. It is probable that the schizophrenia families were made aware of these biologic factors during psychoeducation and therapy sessions during the initial months of inpatient treatment; however, the nonschizophrenia families were probably not provided such information. Consequently, it can be hypothesized that there may have been less blaming of the children after 3 months of

treatment in the schizophrenia group than in the nonschizophrenia group.

Further, from a more psychodynamic perspective, there might be a greater predisposition for unconscious guilt in the nonschizophrenic parents, and this unconscious guilt was projected into the family transaction as negative affective style, often as blaming and scapegoating. This unconscious guilt might also have blocked these parents from responding to family treatment interventions, including psychoeducation. However, given the lack of information about the level of psychological development of these parents, their underlying character structure, and the course of illlness during the first 3 months of treatment, it is not possible to reach any conclusions from the present study. In addition, given the nature of post-hoc analyses, specifically the number of correlations and t-tests performed, the significance of any results must be interpreted cautiously. Finally, the difference in group size between the schizophrenia and nonschizophrenia families may also limit the power of the statistical analyses.

E. Summary and Concluding Remarks

The goal of this study was to explore the relationship between internalized object relations and interpersonal affective style. However, tests of the study hypothesis failed to yield significant statistical results. Consequently, it is not possible at this point to confirm an empirically valid relationship between various factors of object relations and affective style.

While the initial reaction to these results was to consider them counterintuitive and surprising, it actually was not all that startling to find that object representations are complex phenomenon. The richness and specificity of our internal processes make them especially difficult to quantify and generalize, which were among the goals of this study.

What this study did find was that developmental levels of object relations, as assessed by the TAT and scored by the Social Cognition and Object Relations Scale, did not demonstrate a significant relationship with affective style, as assessed by a face-to-face family setting held in a psychiatric hospital. While global conclusions cannot be made about the interplay between one's internal and interpersonal worlds based, the findings do raise some important questions. Among these issues to consider are the impact of environmental factors on object relations

functioning, the stability of internalized representations, and the association of affective style and object relations dimensions to specific psychopathology.

The discussion of the TAT suggested that while it may be a valid tool for tapping into one's object representations, its application in the present study was flawed. It appeared that subjects' material was not reflective of their actual level of functioning as seen throughout their participation in the YPIFS. Further, the high correlation of the SCORS subscales raised questions as to the constructs being assessed by the measure. It was suggested that an additional scoring system for the TAT be applied to these data to more fully capture one's internal processes, and that the Rorscach Inkblot Test may have been a better tool for assessing object representations.

Finally, post-hoc findings revealed subtle differences in the relationship between object relations and affective style depending on the diagnosis of subjects' children. Interesting patterns in the data were observed, specifically, while associations in the nonschizophrenia group were present utilizing the baseline AS data, significant findings did not emerge in the schizophrenia group until the 3-month AS assessment. In addition, the nonschizophrenia group lost its significant correlations at 3-months. Further, there was a shift from positive to

negative correlations in the schizophrenia group from baseline to 3-months; however, the results shifted in the exact opposite direction in the parents in the nonschizophrenia group. In other words, in the latter subjects, at baseline higher levels of object relations were associated with less negative affective style, but at 3 months better object relations functioning was correlated with more negative affective style. These results were thought to reflect level of clinical improvement in the subjects' children and underlying family dynamics, which warrant further investigation.

Areas of exploration suggested by the results include the use of the TAT in object relations assessment, the validity of the SCORS measure, fluidity of object relations in adult populations, and the relationship between attachment, object relations, and the expression of negative affect. Such future research may shed light on the factors that mediate the expression of negative affect in families with a severely disturbed member, which could be translated into appropriate treatment interventions.

APPENDIX 1

SYNOPSIS OF SCORS SUBSCALES

AFFECT-TONE RELATIONSHIP PARADIGMS

Principles: Scale measures affective quality of representations of people and relationships. It attempts to assess the extent to which the person expects from the world, and particularly the world of people, profound malevolence or overwhelming pain, or views social interaction as basically benign and enriching.

Level 1: At Level 1 the person views the social world as tremendously threatening and/or experiences life as overwhelmingly capricious and painful. People are see as abandoning, abusing, or destructive of others and oneself with no reason, other than perhaps malice or unconcern. People are often classified as victims or victimizers. The person may feel tremendously alone.

Level 2: At Level 2, the person views the world, and particularly the world of people, as hostile, capricious, empty, or distant, but not overwhelming. The person may feel alone. People may be experienced as unpleasant or uncaring, but not primarily as threats to one's existence.

Level 3: At Level 3, the person has a range of affectively charged object representations/person schemas and interpersonal expectancies, which are not primarily positive. In general people are seen as capable of loving and being loved, of caring and being cared for.

Level 4: At Level 4, the person has a range of affectively charged object representations/person schemas and interpersonal expectancies, which are primarily positive. In general people are seen as capable of loving and being loved, and enjoying the company of others.

Level 5: At Level 5, the person has predominantly positive object representations/person schemas and interpersonal expectancies. He or she generally expects relationships to be benign and mutually enriching. The person expects intimacy, mutual appreciation, and loyalty in close relationships.

COMPLEXITY OF REPRESENTATIONS OF PEOPLE

Principles: Scale measures the extent to which the subject clearly differentiates the self from others; sees the self and others as having stable, enduring, multidimensional dispositions; and sees the self and others as psychological beings with complex motives and subjective experience.

Level 1: At Level 1, the person does not see others as clearly differentiated or bounded, and/or does not differentiate his/her own thoughts and feelings from those of others.

Level 2: At Level 2, the person sees people as clearly bounded, separate from self and from other, but lacks a sense of people's subjective states, motives, or enduring characteristics. The focus is on behaviors and momentary actions. People are seen as unidimensional, existing *in* situations rather than *across* situations. Where people are understood as having enduring qualities, these are global, evaluative traits like "nice" or "mean." The person conveys no sense of psychological awareness.

Level 3: At Level 3, the person begins to show some evidence of psychological awareness, and begins to make inferences about subjective states in addition to focusing on behavior. Understanding of one's own and others' psychological processes and subjective experience does not, however, delve far beneath the surface. The person has ideas or "theories" about self's and others' enduring characteristics, but these intuitive theories are either unidimensional, overly general, stereotypic, or lacking in subtlety. There is little sense that people could do things "out of character" or experience psychological conflicts. Descriptions may be based on schemas of how people in general are, rather than on an understanding of the particularity of the self's or others' mental states, personal meanings, or enduring attributes.

Level 4: At Level 4, the person has a developing appreciation for the complexity of the subjective states and personality dispositions of self and others.

COMPLEXITY OF REPRESENTATIONS OF PEOPLE (cont'd)

Level 5: At Level 5, the person has a recognition of the complexity of the subjective states of self and others and has a relatively differentiated view of personality dispositions. However, the person does not integrate complex representations of subjective states with complex representations of personality. Component parts of personality are not yet understood as aspects of an interacting system, in which enduring dispositions can come into conflict. The person has some awareness of unconscious processes, but understanding of these is not yet integrated with understanding of enduring attributes and personal history.

Level 6: At Level 6, the person sees the self and others in fairly complex ways. The person is able to reflect on his/her own representations of self and others, is able to depict personality change over time, and may convey a rudimentary sense of the historical (familial, experiential) roots of traits, feeling states, and psychological processes.

Level 7: At Level 7, the person can simultaneously coordinate and integrate complex, generalized representations of specific mental states. He/she has an integrated understanding of complex psychological processes within the context of the self's and others' personal histories and attributes. The person can see and convey how people are particular and individual, and can see how personal meanings of long standing affect current psychological experience. The person is able to make elaborate inferences about the self's and others' mental states, motivations, points of view, history, unconscious processes, and conflicting feelings and impulses.

CAPACITY FOR EMOTIONAL INVESTMENT IN RELATIONSHIPS AND MORALS

Principle: Scale measures the extent to which others are treated as ends rather than means, events are regarded in terms other than need gratification, moral standards are developed and considered, and relationships are experienced as meaningful and committed.

Level 1: At Level 1, the predominant concern is self-gratification. Others' perspectives, needs, and desires are not considered, and the impact of one's actions upon others is frequently not taken into account. People are seen as existing only in relation to oneself: they are treated as tools for the achievement of one's desires; as mirrors or audience for ones' displays; or as impediments to ones' gratification. People may be seen as useful or comforting at the moment but are not invested in emotionally for their unique characteristics. Rules and authorities are seen as obstacles unless momentarily useful.

Level 2: At Level 2, the person recognizes that there exist differences between the needs and desires of self and others, though the primary aim remains the satisfaction of one's own wishes. Friendships develop but in many respects remain interchangeable. Relationships consist largely of shared activities. Attachments are important, but the needs of the other are typically experienced as secondary to the needs of the self, particularly when these conflict. There is a rudimentary sense of right and wrong, characterized by an equation of prudence and morality (i.e., bad actions are bad because they lead to punishment). Moral injunctions that exist are frequently primitive and harsh.

CAPACITY FOR EMOTIONAL INVESTMENT IN RELATIONSHIPS AND MORALS (cont'd)

Level 3: At Level 3, the person considers the needs and wishes of significant others in making decisions. Pleasing other people, being liked, and behaving in accordance with the standards of respected authorities are salient aims which often override self-interest. Friendships and familial relationships are relatively conventional. The person is concerned with being good and experiences guilt when his/her thoughts, feelings, or actions conflict with internalized standards. Rules are respected because they are rules; manners and conventions are seen as important and even natural. Moral rules are relatively rigid and concrete, and there may be a pronounced sense of duty, particularly to certain people.

Level 4: At Level 4, the person is capable of forming deep, committed relationships in which the other is valued for his/her unique qualities. Commitment to others often overrides personal desires, but actions on behalf of another are undertaken without a rigid sense of duty or a predominant desire to be liked for one's good deeds. Moral judgments, values, and modes of conflict resolution remain relatively conventional. The person is concerned with doing the right thing, as defined by society or respected authorities, which is frequently expressed in more abstract terms and is often self-abnegatory. Relationships are seen as lasting over time and involving considerable commitment and intimacy.

Level 5: At Level 5, the person treats self and others as ends rather than means. The person is interested in the development and happiness of both self and others, and attempts to achieve autonomous selfhood within the context of real involvement with and investment in others. Conflict between people with conflicting legitimate interests are understood as requiring compromise. Authorities and rules are not taken to be absolute; the person has a sense of the conventional nature of social rules and believes that at times these must be overridden or changed because they conflict with self-generated or carefully considered standards, or because they do significant harm to people in concrete circumstances.

UNDERSTANDING OF SOCIAL CAUSALITY

Principle: Scale measures extent to which attributions about the causes of people's actions, thought, and feelings are logical, accurate, complex, and psychologically-minded.

Level 1: At Level 2, the subject does not understand the concept of causality in the social realm. There is either no sense of necessity to understand why behaviors, feelings, or situations emerge, or explanations that are advanced are grossly illogical.

Level 2: At Level 2, the subject has a rudimentary understanding of social causality. Actions are explained as resulting from simple, often global feelings or are explained as responses to environmental stimuli. Explanation of behaviors, feelings, or interactions frequently have mild logic errors or inconsistencies.

Level 3: At Level 3, the person has a relatively complex understanding of some causal processes in social life, where behaviors, feelings, and their causes are still conceived largely in stimulus-response terms. The person recognizes that psychological processes may influence action, but causality is still in many respects primarily external to the person.

Level 4: At Level 4, the person has a basic understanding of the role of psychological events in motivating action. There is considerable recognition of the importance of people's thoughts and perceptions in social behavior and experience, though understanding of psychological causality is incomplete or applied only irregularly.

Level 5: At Level 5, the person understands feelings and behaviors as caused by psychological processes, which may or may not be elicited by environmental stimuli. Complex thoughts, feeling, and conflicts are seen as mediating action.

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IMAGE EVALUATION
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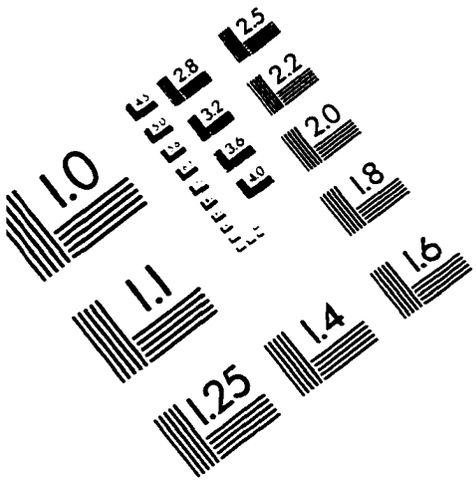

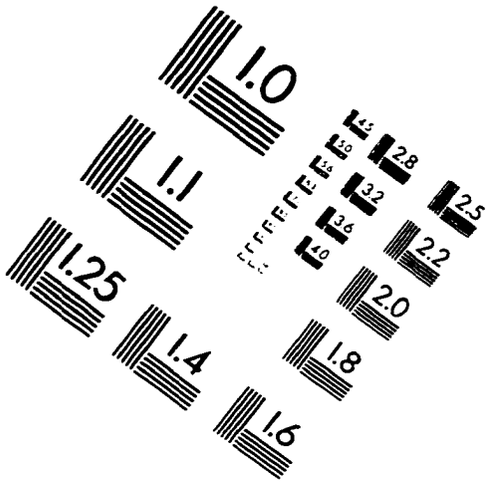

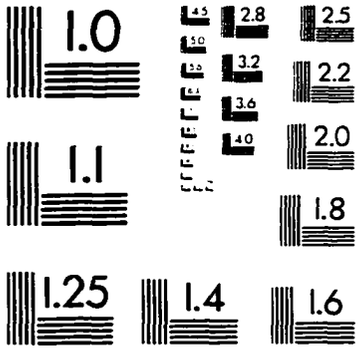

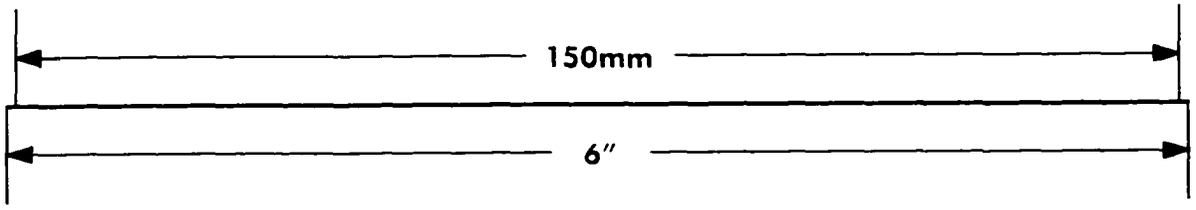

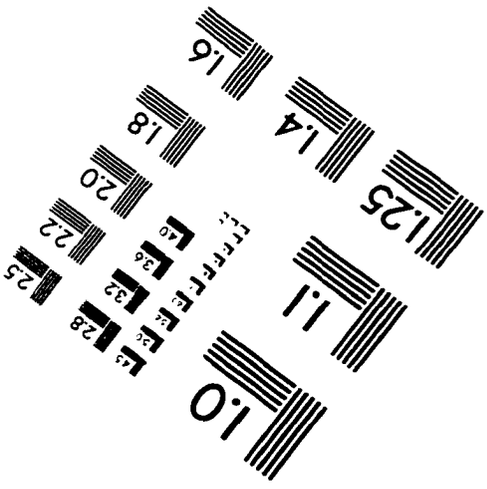

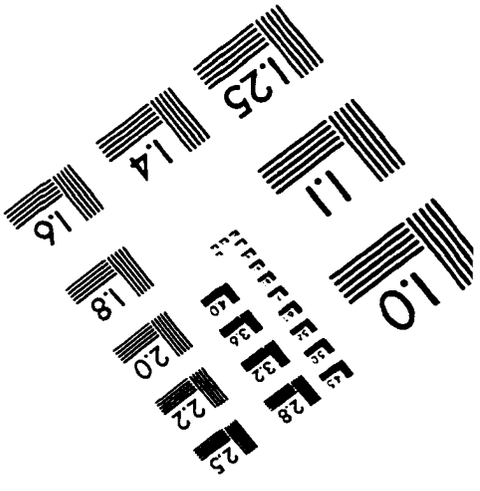

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