RORSCHACH ASSESSMENT OF OBJECT RELATIONS
DEVELOPMENT IN SEXUALLY ABUSED CHILDREN

THESIS

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By

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Sexual abuse of children has profound negative effects on psychological development. This study examined the effects of sexual abuse on object relations functioning by using the Mutuality of Autonomy Scale (MAS, Urist, 1977) to score Rorschach protocols of 63 abused children and 60 non-abused clinical controls. The hypothesis that abused children would have less developed object relations than their non-abused counterparts was not supported. Neither was the hypothesis that children who experienced greater severity of sexual abuse would exhibit more malevolent object relations. The hypothesis that mean and modal MAS scores would be highly intercorrelated and interchangeable as research variables was supported. Comparisons of this sample to a normative sample are discussed.
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CHAPTER I

INTRODUCTION

Overview of Child Sexual Abuse Literature

Child abuse of all kinds has been closely investigated in the last two decades. Solid conclusions are difficult to draw from the literature for numerous reasons. As with most areas of research in their infancies, early inquiries of abuse rely on less than perfect methodologies. Given the nature of abuse and its stigmatizing effects, most samples in the literature include either subjects who present themselves to a clinical setting for treatment (Briere, Evans, Runtz, & Wall, 1988; Brooks, 1985; Conte & Schuerman, 1987; Livingston, 1987; Seinfeld, 1989; Shearer, Peters, Quaytman, & Ogden, 1990; Tufts, 1984), or cases which have been referred by legal agencies for assessment after abuse is reported (Zivney, 1987; Zivney, Nash, & Hulsey, 1988). Clinical samples, especially in studies of sexual abuse, are often comprised of women who seek help long after the occurrence of abuse for various problems commonly considered to be sequelae of childhood abuse. Nonclinical samples are frequently drawn from college student populations (Briere & Runtz, 1985, 1990; Sedney & Brooks, 1984) or random community samples (Bagley & Ramsay, 1985; Peters, 1984).
Child sexual abuse is most commonly defined as a forced or coerced sexual act imposed on a child, or any sexual activity between a child and someone five or more years older, whether or not coercion is obvious (Browne & Finkelhor, 1986). Some studies compare victims of different types of abuse (Briere & Runtz, 1990; Livingston, 1987; Shearer et al., 1990), while others address issues such as age at onset of abuse (Tufts, 1984; Zivney et al., 1988), relationship to the perpetrator (Finkelhor, 1979; Tufts, 1984), type of abusive act (Russell, 1988; Tufts, 1984), duration of abuse (Russell, 1988; Tufts, 1984), and male versus female victims (Briere et al., 1988). Researchers often combine these variables in their investigations.

Alter-Reid, Gibbs, Lachenmeyer, Sigal, and Massoth (1986) reviewed sexual abuse studies and summarized them as follows. The reported prevalence of child sexual abuse in the U.S. ranges from 19% to 54%, with 38% probably being the best estimate. Children under the age of 14 are often at greater risk than older children, accounting for 74% to 89% of the abuse cases studied. Perpetrators are very likely to be male (96%), and to be someone the victim knows. It is estimated that only 11% to 25% are strangers. Abuse by a step-father is six times more likely than abuse by a natural father. Also, in families with step-parents, children are more likely to be abused by friends of the parents.
In a comprehensive review of the sexual abuse literature, Browne and Finkelhor (1986) discussed the effects of abuse which have received the greatest amount of empirical support. Initial effects were defined as "reactions occurring within two years of the termination of the abuse" (Browne & Finkelhor, 1986, p. 66). Stress-related symptoms such as fearfulness, sleep disturbance, and distractibility are among the effects which emerge shortly after disclosure of abuse (Finkelhor, 1990). In one study (Tufts, 1984) the degree of initial psychopathology demonstrated by victims was found to vary by age group. Latency-aged girls (7-13 years old) were much more likely to show severe distress than were either younger (preschool) or older (adolescent) girls. Pathology (as measured on the Louisville Behavior Checklist) was most frequently and clearly manifested as fear, anger, and hostility (Tufts, 1984). Anxiety and depression have also been shown to be common initial psychological reactions to sexual abuse. Symptoms of guilt, shame, and decreased self-esteem have received insufficient and contradictory support as proximal reactions to sexual abuse (Browne & Finkelhor, 1986).

Inappropriate sexual acting out is the most commonly reported behavioral correlate of sexual abuse, being more prevalent with younger girls and older boys (Browne & Finkelhor, 1986). Other frequently cited acting out behaviors include substance abuse, prostitution,
impulsivity, and self destructive actions (Shapiro & Dominiak, 1990; Shearer et al., 1990; Westen, Ludolph, Misele, Ruffins, & Block, 1990). Often in cases of incest, victims run away from home, a possible method of coping, especially if the perpetrator is inside the home (Goldston, Turnquist, and Knutson 1990).

Long-term effects of child sexual abuse, those which occur more than two years after the incident of abuse, include psychopathology and maladaptive behavior. Several researchers have found symptoms of depression and anxiety in adults who were victimized as children (Bagley & Ramsay, 1985; Briere & Runtz, 1985; Peters, 1984; Sedney & Brooks, 1984). Self-destructive acts and thoughts of self harm are not uncommon in adult sexual abuse victims (Bagley & Ramsay, 1985; Herman, 1981; Sedney & Brooks, 1984; Westen et al., 1990). Substance abuse is also associated with sexual abuse history. Herman (1981) reported that 35% of her sample of women incest victims abused drugs and alcohol. Peters (1984) reported that in a random community sample of women, 17% had symptoms of alcohol abuse and 27% had abused drugs. Westen et al. (1990) reported that the sexually abused female adolescents in their sample scored significantly higher than nonabused subjects on a measure of substance abuse. Males and females seem to be equally susceptible to developing clinical symptoms (Briere et al., 1988), but researchers of one study indicate that males may be more
prone than females to abuse substances (Stein, Golding, Siegel, Burnham, & Sorenson, 1988).

Impairments in social functioning and interpersonal relating are also among the long-term effects of sexual abuse (Browne & Finkelhor, 1986). Feelings of social isolation, stigmatization (Herman, 1981) and poor self-esteem (Bagley & Ramsay, 1985) may begin at an early age and lead to social insecurity and relationship difficulties. Tong, Oates, and McDowell (1987) found that nonperpetrating parents of sexually abused boys and girls rated their children lower on dimensions of social competence than parents of nonabused children. The abused children rated themselves as less popular than did the nonabused children (Tong et al., 1987). Social withdrawal was reported by Friedrich, Urquiza, and Beilke (1986) in their study of young sexually abused boys and girls. In adult victims of childhood sexual abuse, relationship difficulties have been reported in the form of greater marital disruption and decreased sexual satisfaction (Finkelhor, 1990). Westen et al. (1990) found significantly higher incidence of paranoid experiences, avoidance of being alone, and more pathological object relations when sexually abused adolescents were compared to nonabused controls.

Sexual abuse has also been found to affect cognitive functioning. Westen et al. (1990) reported that sexually abused female adolescents scored an average of over 11
points lower on measures of intelligence than nonabused controls. Deficits in verbal skills accounted for the majority of the discrepancy between the groups.

Finkelhor (1990) reported that initial and long-term effects of sexual abuse on males and females are quite similar. Boys and girls did not differ on the majority of symptoms assessed in the Tufts study (1984). Similarly, in an adult sample, Briere et al. (1988) found no significant gender differences with respect to symptoms in their clinic sample of sexual abuse victims. Gender differences which have been reported are related to the ways males and females deal with the negative emotion which follows abuse. Specifically, boys are more likely to externalize negative emotions through aggressive acting out, whereas girls tend to internalize negative feelings and present as depressed or with depressive symptomatology (Finkelhor, 1990; Friedrich, et al., 1986).

In studies focusing on incest, Alter-Reid and her colleagues (1986) found that normal psychic development in child and adolescent victims is often disrupted. These authors indicate that incest is considered to be the most disturbing type of sexual abuse (cf. Herman et al., 1986). Tong et al. (1987) found that sexually abused girls in their study reported lower self-esteem than sexually abused boys. The girls were more often victimized by relatives or acquaintances, whereas a majority of the boys' perpetrators
were strangers. This led the researchers to conclude that effects of abuse are more severe when the victimizer is a trusted friend or relative. Not only do incest victims share the symptomatology of other victims (e.g., guilt, fear, depression, low self-esteem, and poor social skills), but other symptoms are even more profound. Repressed anger and hostility, difficulty trusting, blurred role boundaries, and problems with self-control are added difficulties which distinguish incest from non-incest victims of child sexual abuse (Alter-Reid et al., 1986).

Incest which is perpetrated by a father or father figure is considered to be especially traumatic and have more severe long-term consequences (Browne & Finkelhor, 1986; Westen et al., 1990). The use of the term "father figure" or "parental figure" by researchers (e.g., Herman et al., 1986; Shearer et al., 1990) reflects that kinship alone is not necessarily associated with more trauma after abuse. Studies which have taken only actual relationship into account often report conflicting results. The role the perpetrator plays in a child's life seems to have more impact than whether or not a blood relationship exists. Therefore, it is important to examine the role of the perpetrator when assessing the severity of abuse-related trauma (cf. Browne & Finkelhor, 1986).

The type of sexual act may also increase the likelihood of traumatization or greatly impaired psychological
functioning following victimization. Browne and Finkelhor (1986) concluded that, in general, more serious forms of sexual contact are associated with greater trauma. However, there is some disparity in findings for specific types of sexual acts. Russell (1988) found that anal or vaginal intercourse (attempted or completed), or fellatio had the greatest negative impact, followed by manual touching of unclothed genitals or breasts. The least traumatic included unwanted kissing or touching of clothed body parts. Bagley and Ramsay (1985) reported penetration had the strongest relationship with psychological impairment. Browne and Finkelhor (1986) cited studies with different conclusions, e.g., that fondling without penetration created more anxiety in children than did acts which included penetration. Thus, Browne and Finkelhor (1986) concluded that intimate contact seems to be more traumatic, but the role of actual penetration is debatable. These authors also reported that negative reactions to abuse were strongly related to the use of force. Perhaps when penetration is achieved only by the use of force, the experience is more traumatic. It does appear, however, that regardless of the use of force, genital contact leads to more severe symptomatology than does nongenital contact (Browne & Finkelhor, 1986).

In sum, psychopathology among victims of sexual abuse is manifested in many ways, both psychologically and behaviorally. Among the most pervasive effects are
impairments in interpersonal relationships, which are often characterized by anger and hostility, sexual acting out, and lack of trust. Object relations theory provides a way of conceptualizing interpersonal relatedness, emphasizing the essential role of interactions in the child's early life. It may prove helpful to examine the effects of sexual abuse in terms of object relations development.

Object Relations Theory

Object relations theory grew out of Freud's theory of the instincts (Rychlak, 1981). Simply stated, objects are defined as external persons or things which can satisfy instinctual needs (Rychlak, 1981) or become psychologically significant (Brenner, 1973). Objects are, at least initially, the targets of libidinal drive (Cashdan, 1988), and at first, a child is concerned only with their need-satisfying aspects (e.g., the mother's breast, or a bottle, satisfies hunger). An object is "psychically nonexistent" (Brenner, 1973, p. 99) until the child experiences both a need and the satisfaction of that need by the object. With continued gratification by an object, a relationship develops which reflects attitudes and behavior toward the object. This relationship forms gradually until it eventually persists even when instinct gratification is not the main goal (Brenner, 1973). At this point, interactions with others have provided some sense of time
continuity, and a degree of emotional investment is present (Fishler, Sperling, & Carr, 1990).

Children's early object relations usually share certain characteristics. First, they center around part-objects, i.e., the mother is not seen as a whole but as separate entities including breast, smiling face, angry face, etc. Second, much ambivalence surrounds an object. For example, the mother's breast is both a need satisfier, as when feeding, and a need frustrator, as when taken away. Finally, the child's identification with the object occurs when he or she becomes like that external object, while being able to view the object as separate (Brenner, 1973; Hinshelwood, 1989).

Melanie Klein observed that children focused more energy on building the inner world than trying to control libidinal impulses (Cashdan, 1988). Thus, she shifted emphasis in psychic development from the need to control libidinal impulses to the need to construct the inner world. She stressed the concept of incorporation, which refers to the fantasy of bodily taking in an object so that it is physically present (Hinshelwood, 1989). Whereas Freud stressed the role of identification in ego development, Klein viewed incorporation as the process by which the inner world formed and therefore as the most salient process in development. Klein stressed the conflict between the self and the incorporated object (Mannoni, 1974). Incorporated
objects came to be known as internal objects, and for Klein and her followers the internal world was of utmost importance, giving one "a sense of existence and identity" (Hinshelwood, 1989, p. 68).

Object relations theories evolved so that the representation of interactions between self and others came to be considered of central importance in understanding both normal and pathological psychic development (Blatt, Tuber, & Auerbach, 1990). According to Ryan, Avery, and Grolnick (1985), "early patterns in the experience of self and others are considered to be the foundations upon which the current intrapsychic and interpersonal modes of functioning of the individual are structured..." (p. 6). One aspect of modern object relations theory focuses on the phases through which a child develops intrapsychically in parallel with physical growth. Essentially the tenets are: (a) we are born with an innate ability to relate to others, (b) we progress through a developmental sequence of phases, and (c) these phases are strongly affected by the quality of early parenting (Fishler et al., 1990).

Margaret Mahler (1986a, 1986b) proposed four phases through which ego development and self-other differentiation occur. Her ideas emanated from work with children, and her model of development is widely recognized. She linked intrapsychic development to physical and locomotor development.
Mahler (1986a) named the first phase, which comprises the first few weeks of life, normal autism. In this phase the infant is focused totally on him/herself, trying to achieve physiological homeostasis and relieve tensions. The infant is aware of no distinctions between its own actions (e.g., urinating, coughing, and spitting) and those of the mother (e.g., feeding). These processes are eventually differentiated as experiences which are either pleasurable and good, or painful and bad. Good-bad differentiation subsequently colors all interactions.

The phase of symbiosis begins around the second month of life, and is characterized by the infant's absolute reliance on the mother. This phase includes an initial state of primary narcissism in which the child has no awareness of objects other than the self. The infant then moves to a state in which he or she begins "to perceive need satisfaction as coming from a need-satisfying part object" (Mahler, 1986a, p. 202), namely the mother. Yet at this point, there is no distinction between internal and external objects, and this need-satisfier is still experienced as part of the self. Symbiosis corresponds with the beginnings of memory traces, which allow the child to expect and wait for need satisfaction. This can also be viewed as "learning through experience" (Mahler, 1986a, p. 204) which fosters further good-bad differentiation and the formation of relationships.
Perhaps most emphasis in research and assessment is given to the third phase, the separation-individuation process. By gaining locomotor control, the child is able to explore more of the world, which until then had centered around him or her. Three subphases are passed through before the child is able to achieve a stable sense of individual self as well as a stable sense of other as a separate but internalized object (Greenberg & Mitchell, 1983). This is the ultimate goal of object constancy.

In the differentiation subphase of separation-individuation, the infant embarks on a "hatching" (Mahler, 1986a, p. 207) process. The previously inwardly-focused attention shifts outward, and the child begins to differentiate self from others. With increased motor control the child is able to visually and tactiley explore the mother. Once mother is familiar, the child begins exploring others as well. Stranger anxiety is likely to result in "children whose basic trust has been less than optimal" (Mahler, 1986b, p. 225).

The practicing subphase begins around the tenth month. In addition to the bodily differentiation of the previous phase, the child establishes a bond with the mother, and functions of an autonomous ego begin. Inanimate objects are explored from a psychological distance which corresponds to a physical distance from the mother. Mother serves as a "home base" (Mahler, 1986b, p. 227) from which safe
exploration can occur. The child often checks back or "refuels" (Mahler, 1986a, p. 208) when anxiety is aroused. Through increasing autonomy of motor functions (crawling, walking), the child sees the world as his "oyster" (Mahler, 1986b, p. 230). However falls and frustrations are also encountered (e.g., having a toy or some other pleasurable object taken away). Therefore, while the child is learning to master being away from mother, the self and others are being viewed as both good and bad (further differentiation). Ambivalence on the part of the mother during the practicing subphase can inhibit exploration by making it difficult for the child to establish a comfortable psychological and physical distance (Mahler, 1986b).

Rapprochement, the third subphase, begins when the toddler has mastered upright locomotion. Through increased exploration, the child realizes that the world is not his or her oyster. Feelings of omnipotence give way as obstacles and frustrations become increasingly apparent. The child has now become fully differentiated from the mother, and fears of object loss and loss of love emerge. Many defenses are formed at this time, especially splitting, which allows the child to experience both "intense neediness and powerful desires for separateness" (Greenberg & Mitchell, 1983, p. 278). Separation anxiety is relieved through active approach behavior, signifying the child's wish that the mother share experiences which before were enjoyed in
isolation. The "struggle against both fusion and isolation" (Mahler, 1986b, p. 231) emerges in the rapprochement subphase. This is a recurrent theme throughout life, and is especially problematic when the mother does not instill the necessary confidence in her child that he or she will "make it out there" (Mahler, 1986b, p. 228).

Sexual Abuse and Object Relations

When mothers, or other primary caretakers, react in ways which inhibit growth, difficulties are likely to emerge, either in the form of psychopathology or deficiencies in interpersonal relationships. When children have been sexually abused, their caretakers have often failed to provide a safe, nurturing environment in which normal psychic development can occur. This is particularly the case when the perpetrator is a parental figure. Any abusive act is likely to be experienced as an extremely negative object interaction, and abused children very often grow up to manifest pathological symptoms suggestive of poor object relational adaptation. For example, there is increasing evidence that the "constellation of symptoms" (Westen et al., 1990) seen in many sexual abuse victims is similar to borderline personality disorder. Shearer and his colleagues (1990) pointed out that many of the sequelae of child sexual abuse, e.g., impulsivity, self-destructive behavior, substance abuse, and identity disturbance, are
identical to DSM-III-R criteria for borderline personality disorder. Herman, Perry, and van der Kolk (1989) found that between 67% and 86% of a sample of women with borderline personality disorder were sexually abused as children. Kernberg (1970) considers borderline personality disorder to be a disturbance at the lower level of personality organization. The most frequently utilized defenses at this level include projection and splitting which contribute to severe ego weakness, as manifested by identity diffusion, impulsivity, and lack of anxiety tolerance. Shapiro and Dominiak (1990) reported that primitive defenses such as denial, projection, acting out, splitting, displacement, distortion, and acute regressive states are most often used by adolescents with a history of sexual abuse.

Westen et al. (1990) reported more pathological object relations in sexually abused adolescent females than in nonabused psychiatric controls, as measured by the interpersonal section of the Diagnostic Interview for Borderlines (DIB, Gunderson, Kolb, & Austin, 1981). Shearer et al. (1990) provide further evidence that abused children have disrupted object relations. They found that in worst case scenarios of abuse, family disruption (defined as loss of a parent by death, divorce, or extended separation) was highly prevalent. Wooley and Vigilanti (1984) also found a disruptive family pattern in their sample of women who were sexually abused as children by one or more close male
relatives. They espoused that such environments serve as double-binds which, through a series of injunctions and conscious or unconscious collusion by other family members (especially the mother), lead to failure in the separation-individuation process. Common in their sample was a "no-win cycle of love/hate and fear/dependency" (p. 348). In both of these reports (Shearer et al., 1990; Wooley & Vigilanti, 1984), at least one parental figure was absent, whether physically or emotionally, and the other perpetrated the abuse. This indicates that neither was able to provide the nurturing environment essential to normal object relations development. Westen et al. (1990) found that the majority of sexually abused girls in their sample had experienced insufficient parenting in the form of maternal rejection or neglect by a primary caretaker. They concluded that severe character pathology, especially borderline personality disorder, is probably caused by "some synergistic combination of early parent-infant interactions, continued grossly inappropriate or neglectful parenting, and manifestly traumatic experiences" (Westen et al., 1990, p. 63). Thus both severe abuse and the absence of a caring parental figure are associated with greater pathology, which is in turn indicative of impeded object relations development.

In sum, the literature indicates that object relations development is strongly affected by sexually abusive
encounters. This could be empirically demonstrated by assessing and comparing object relations patterns of sexually abused children and nonabused controls.

**Assessing Object Relations**

Although a few objective measures of object relations exist (Bell Object Relations Inventory, Bell, Billington, & Becker, 1986; Separation-Individuation Test of Adolescence, Levine, Green & Millon, 1986), the internal representations of object relations have historically been assessed via projective techniques, most notably the Rorschach Inkblot Test. Such research assumes that interpersonal functioning can be evaluated from the style of self and object representation projected in an ambiguous task (Blatt et al., 1990). Mayman (1967) likened the Rorschach to "a field of impressions where amorphousness prevails" (p. 17) and where a "reparative process" (p. 17) allows a person to replace ambiguity with familiar images. The Rorschach is viewed as an excellent tool for examining the course of psychic development, including the evolution of self concept (ego) and defense mechanisms (Halpern, 1960). By comparing a child's responses with those of his peers, growth can be traced, as can under- or over-developed processes. Halpern gives as an example the use of human figures (H). For very young children who have had little chance to develop a sense of separateness of self from others, there are often no human figures perceived in the inkblots. In these cases,
animal responses are the most common expression of ego. As the child matures, more H will be present in the record, as will the emergence of human movement (M) responses which are indicative of further ego strength (Halpern, 1960; Lerner, 1975). Responses involving movement by animals (FM) and inanimate objects (m) are considered prime arenas for expressing less safe or acceptable fantasy as compared to M responses (Tuber, 1992).

The percepts of human content (H) and human movement (M) were first examined by Piotrowski (1957) and Schactel (1966; cf. Fishler et al., 1990; Urist, 1977). These two percepts are thought to be exemplars of the internal representations of self and object. Mayman (1967) reported in a summary of research that human percepts are associated with a general capacity for forming relationships, and specifically the capacities for empathy and identification, which are higher level object relations functions. Human responses were also reported by Mayman to be correlated with independent clinical ratings of interpersonal relating. Lerner (1975) reported that H appears to be more related to social interest than to empathy, while M seems to be associated with the capacity for empathic behavior, especially self-acceptance. Cooper and Arnow (1989) summarized the research by saying that well-articulated and clear human percepts indicate in general more psychological health, as reflected in the capacities for empathy,
identification, and object relatedness, in both clinical and
nonclinical samples. While human percepts tap various
aspects of object relations, alone they do not provide the
full range of information available from the Rorschach
record (Tuber, 1983; Zivney, 1987). This is especially true
if few or no human figures are reported (Cooper & Arnow,
1989).

More recent methods of examining object relatedness on
the Rorschach have attempted to assess interpersonal style
by tapping intrapsychic representations of interpersonal
experiences. Examples of such scales include the Rorschach
Empathy-Object Relationship Scale (RE-OR, Pruitt & Spilka,
1964); Concept of the Object Scale (Blatt, Brenneis,
Schimek, & Glick, 1976); a scale by Krohn and Mayman (1974);

The Mutuality of Autonomy Scale. Urist's (1977)
measure departs from others in that it examines objects in
relationship to each other, including human, animal and
inanimate objects. Movement responses involving two or more
objects are scored as well as responses in which a
relationship between two or more objects is merely implied.
His assumption is that all types of kinesthesis reflect how
a person experiences and defines human relationships.
Because Urist's scale includes animal responses, it is more
useful with pre-adolescent children who tend to give more
animal than human responses as compared to older children (Halpern, 1960; Tuber, 1983).

The Mutuality of Autonomy Scale (MAS, Urist, 1977) rates all responses which demonstrate explicit or implicit relationships among objects. Ratings are on a scale from one to seven, according to the level of progression toward mature object relations portrayed in the response. The influence of the mother-child dyad on object relations development, stressed by Mahler (1986a, 1986b), serves as a basis for the scale (Urist & Shill, 1982). Particular emphasis is given to the separation-individuation process (Tuber, 1989a). Developmental stages range from the pre-object stage of primary narcissism where self and other are undifferentiated and symbiotically fused, to empathetic object relatedness where the child gains the capacity for empathy and is able to experience self and other as separate and autonomous within a relationship (Urist, 1977; Urist & Shill, 1982). For further descriptions of characteristics of these stages (e.g., mirroring, anaclitic dependence) see Appendix B.

Urist (1977) found that none of his subjects scored uniformly high or low, but that each provided a range of responses, which he referred to as a "repertoire of behavior across varying levels of functioning" (p. 9). He stressed the importance of regarding the whole range of responses. In this way, one's developmental level, including arrests or
regressions, would be evident in the more frequently occurring MAS scores. Tuber (1992) questioned the validity of the scale as a measure along a developmental continuum, citing its lack of correlation with age and its similar distributions among young and latency age children. He contended, however, that the MAS is useful in identifying both adaptive and pathological levels of object representations.

Urist (1977) assumed that his seven-point scale reflects an object relations concept which is divided into levels separated by equal intervals. He therefore treated the scale points as interval data. Tuber (1992) questioned the appropriateness of this assumption. He argued that, due to the lack of normality of distribution of scores, the MAS is an ordinal measure which taps distinct modes and severity of object relations.

The MAS has been applied to comparisons of adult clinical populations and independent ratings of inpatient behavior (Urist, 1977), ratings of clinical case records (Blatt, Tuber, & Auerbach, 1990; Urist & Shill, 1982), and extensive symptom checklists (Harder, Greenwald, Weschler, & Ritzler, 1984). In addition, it has been applied to several child samples including feminine boys (Coates & Tuber, 1988), boys with separation anxiety disorder (Goddard & Tuber, 1989), children with imaginary companions (Meyer & Tuber, 1989), school children (Ryan et al., 1985), children
in residential treatment (Tuber, 1983), a normative sample of children (Tuber, 1989b), and children undergoing elective hernia surgery (Tuber, Frank, & Santostefano, 1989).

Construct validity of the MAS. The MAS was originally validated as a measure of object relations in a study of 40 adult inpatients between the ages of 17 and 57 years (Urist, 1977). MAS ratings of Rorschach responses correlated significantly with ratings of the patients' ability to interact with others as assessed by staff ratings of client behavior on the hospital ward, $r = .53$, $p < .001$, and independent clinical ratings of patients' relationally-oriented autobiographies, $r = .67$. $p < .001$. All ratings were made on similar 7-point scales adapted for the rated material.

To examine possible rater bias due to exposure to entire Rorschach protocols, Urist and Shill (1982) correlated MAS ratings of excerpted responses, determined by an independent pair of raters, to a clinical rating of object relations capacity. The following MAS variables were examined: (a) highest MAS score; (b) lowest MAS score; (c) average MAS score; (d) high average MAS score (mean of three highest scores); (e) low average MAS score (mean of three lowest scores); and (f) overall MAS score (rater's judgement of the most representative score on the protocol). Interrater agreement of MAS ratings was 58% exact hits and 72% within one point. An independent measure of object
relations was derived from clinical records which were rated with the Clinical MAS (CMAS), an adapted version of the MAS which yielded an overall score of object relations. Interrater agreement on CMAS was 62% exact hits and 74% within one point. Their findings supported the hypothesis that if the MAS ratings from restricted data (excerpted responses) truly measure a person's capacity for object relatedness, they would match the MAS rating from detailed data (CMAS of clinical records). Urist and Shill (1982) concluded that the MAS measures actual object relations portrayed in each response which are not tainted by the overall style of response on a record.

Ryan and his colleagues (Ryan et al., 1985) tested whether measured object relatedness correlates with actual interpersonal behavior in school children. They correlated the highest (HOR), lowest (LOR), and mean (MOR) MAS score with teacher ratings on six dimensions of interpersonal and classroom adjustment. HOR did not correlate significantly with teacher ratings. MOR was significantly related to self esteem, $r = -.26, p < .05$, attention, $r = -.30, p < .05$, and working well with others $r = -.33, p < .05$. LOR was significantly related to self-esteem, $r = -.26, p < .05$, and working well with others, $r = -.30, p < .05$. MAS scores were not related to scores on a standardized achievement test (Metropolitan Achievement Tests) or to intelligence (estimated from a short form of the WISC-R), nor were they
related to teacher ratings of the children's achievement and intelligence levels. Ryan et al. (1985) concluded that the MAS "specifically addresses aspects of social functioning and that object relations are related to enduring patterns of interpersonal behavior" (pp. 10-11).

Blatt and his colleagues (1990) examined the relationship between MAS scores and severity of clinical symptoms, presence of thought disorder, and quality of interpersonal relations in a sample of young adults in a private psychiatric inpatient setting. Of their sample, 30% had psychotic disorders, 60% had severe personality disorders, and the remaining 10% were classified as depressed or extremely neurotic. All had been in treatment for at least one year. MAS scores were compared to four measures of Rorschach thought disorder (using the Concept of the Object Scale, Blatt et al., 1976), as well as to three rating scales for clinical records and/or patient behavior. Blatt et al. (1990) found that more malevolent MOR scores, $r = .33$, $p < .0001$, and LOR scores, $r = .34$, $p < .0001$, correlated with greater thought disorder. HOR was not significantly related to measures of thought disorder. With respect to clinical ratings, more adaptive MOR scores were associated with a measure of superego integration, $r = -.27$, $p < .001$, while increasingly malevolent MOR scores were related to neurotic, $r = .21$, $p < .01$, and psychotic symptoms $r = .35$, $p < .0001$. In contrast to the findings by
Urist (1977) and Ryan et al. (1985), Blatt et al. found no association between MAS scores and ratings of interpersonal relationships in their sample of inpatients. While this may be a function of the varying manner in which relationships were assessed across studies, Blatt and his colleagues (1990) concluded that the MAS seemed to be more a measure of tendency toward pathological functioning. Other researchers support this conclusion with the notion that attitudes towards others, which are assessed by the MAS, have little correlation to actual behavior in a relationship (Fishler et al., 1990).

The contradictions with respect to MAS correlation with relationship behavior raise two valuable points. First, the psychological state at the time of testing is likely to affect MAS scores. Ryan et al. (1985) assessed normal children, whereas Blatt et al. (1990) examined adult psychiatric inpatients who had been receiving long-term treatment. It is possible that during hospitalization, a person's view of others is more regressed than would otherwise be the case. In this view, the tendency toward pathological functioning is the most prevalent in the person's "repertoire" (Urist, 1977, p.9) at that specific time. This suggests that during a time of less mental stress, scores reflecting lower levels of object relations would still be present but not as prevalent. Blatt's group provides support for this notion with their finding that
comparisons made with the mean MAS score were more meaningful than comparisons made with either the single highest or single lowest MAS score.

The second point concerns the effect of the ambiguity of a situation on an emotionally distressed person. As Blatt and his co-workers pointed out, in a structured social context, inpatients tended to "express their potential for adaptation," whereas in the face of a more ambiguous stimulus (i.e., Rorschach), the same individuals tended to "present their more pathological potential" (Blatt et al., 1990, p. 726). The implication is that the potential toward pathological functioning could become a reality given a less structured social situation. This is further supported by the finding of Ryan's group (Ryan et al., 1985) that normal, nondistressed children gave MAS scores which were reflective of their actual behavior within the very structured setting of the classroom.

Predictive validity of the MAS. Tuber (1983) found the MAS scale to be more predictive of later adjustment than psychiatric diagnosis. He used the MAS to score Rorschach protocols of children who had been hospitalized for psychiatric care. At follow up (minimum of five years, mean of almost 12 years), the patients' MAS scores were compared to rehospitalization records. Using the Mann-Whitney U test, Tuber found that HOR was healthier for those who were not rehospitalized, \( z(70) = -2.20, p < .05 \). Likewise, LOR
scores were more pathological in those who had been rehospitalized, \( z (70) = -2.48, p < .01 \). Using an index of predictive association, \( \text{HOR}, X^2 = 2.80, \text{Lambda} = .23, p < .05 \), and \( \text{LOR}, X^2 = 5.74, \text{Lambda} = .31, p < .01 \), were each predictive of later hospitalization. A measure of cognitive development in the same study did not predict later hospitalization, \( X^2 = 2.06, \text{Lambda} = .20, \text{ns} \). Tuber suggested that perhaps the cognitive Rorschach measures were not compatible with the content (MAS) measures. Tuber's (1983) sample was limited to children between the ages of 6 and 11. This brings up the possibility that object relations development and cognitive development progress at differential rates, so in a population of children, arrests and regressions in relating may be more readily observed than cognitive deficits. In this sample, the mean MAS score (MOR) had little or no association to later rehospitalization.

**Interrater reliability of the MAS.** Several studies have demonstrated acceptable levels of interrater reliability on the MAS. Percentage of exact agreement ranged from 52% upon initial use of the scale (Urist, 1977; Urist & Shill, 1982) to 90% upon subsequent use (Ryan et al., 1985). Percentage of agreement within one point ranged from 68% (Urist & Shill, 1982) to 98% (Ryan et al., 1985).
MAS studies in child samples. The MAS has been found to differentiate between groups of children in several studies. Coates and Tuber (1988) and Tuber and Coates (1989) studied boys with gender identity disorder (GID). In a pilot study (Coates and Tuber, 1988), GID boys paired male figures with malevolent responses and female figures with healthier responses. This was interpreted as evidence that the boys had shielded their mothers from rage, allowing their ties to mother to remain protected.

In their second study, Tuber and Coates (1989) compared 26 GID boys to 18 male controls on the MAS and a measure of thought disorder. The boys ranged in age from 5 to 12 years. GID boys gave a greater number of thought-disordered responses, \( \chi^2 = 5.65, p < .01 \). Distribution of total MAS scores did not differ for the two groups, \( \chi^2 = 2.45, p < .06 \), but comparison of the distribution of malevolent scores (5,6,7) revealed that GID boys gave more pathological scores than the controls, \( \chi^2 = 2.75, p < .05 \). The researchers concluded that disturbances in personality organization underlie the behavioral pathology in GID boys.

Goddard and Tuber (1989) compared MAS responses of nineteen 5 to 13 year old psychiatric outpatient boys with separation anxiety disorder (SAD; 10 of these also were diagnosed with GID) to MAS responses of 14 control subjects from area schools. Using Mann-Whitney \( U \) test, mean MAS
scores of SAD boys were found to be more pathological than those of the controls, $z = 1.92, p < .05$. In addition, SAD boys gave significantly fewer scores of 1, $z = 2.16, p < .05$, and more scores of 3, $z = 3.12, p < .05$. Goddard and Tuber (1989) concluded that the dependent, clinging object representations (scores of 3) paralleled the SAD and SAD/GID boys' behavioral manifestations of their pathology. They suggested that an abundance of scale point 3 in a record might be a diagnostic indicator of SAD.

Goldberg (1989) correlated scores on the Children's Depression Inventory (Kovacs, 1983) with MAS variables in a predominantly black sample of 100 inner city girls aged 8 to 16 years. Correlations were significant for HOR, $r = .32, p < .001$, LOR, $r = .45, p < .001$, and MOR, $r = .49, p < .001$, indicating that as depression increased, level of object relations decreased. These variables were not significantly correlated with age or a developmental measure of cognition.

Tuber, Frank, and Santostefano (1989) assessed shifts in object representations as a function of impending surgery in 15 boys between 7 and 11 years of age. The control group consisted of 13 children from a parochial school, with a mean age of 9.1 years. The experimental group was tested one week prior to hospitalization, one day before surgery, and three weeks after discharge. Control subjects were also tested at three intervals, and did not score differently on the MAS across time. The boys undergoing surgery gave more
malevolent responses just prior to surgery, \( z = -2.98, p = .003 \), and three weeks after discharge, \( z = -1.96, p = .05 \), than when tested one week before hospitalization. Tuber et al. (1989) concluded that a shift in object representations occurred as a result of increasingly disruptive fantasies spurred by the anxiety of impending surgery.

Tuber (1989b) applied the MAS to a normative sample of 40 children between the ages of 6 and 13 years. He found a bimodal distribution of MAS scores at scale points 2 and 5. Responses at scale points 4 and 7 were rare, accounting for 2% and 0%, respectively, of the total scores given. Ten percent of the sample did not give an adaptive response (score of 1 or 2). Sixty percent gave responses scored 5 or 6. Girls \((n = 21)\) scored systematically less pathologically than boys \((n = 19)\) on HOR, \( z = 2.95, p = .003 \), LOR, \( z = 2.95, p = .02 \), and MOR, \( z = 3.19, p = .001 \). Average number of MAS responses was 4.8.

To summarize, the Mutuality of Autonomy Scale has been shown to be a valid measure of object representation. It has demonstrated predictive validity, as well as solid interrater reliability. It has been applied to both adult and child samples. Its inclusion of non-human interactions is especially useful when assessing object relations development in children, and normative data are available for children. Therefore, the MAS is considered an appropriate measure to use in this study.
Purpose of the Study

Object relations theory provides a framework for exploring the development of interpersonal relatedness. The purpose of this study is to examine the effects of childhood sexual abuse on object relations in children. The Mutuality of Autonomy Scale will be used to rate children's Rorschach responses in which a relationship between two objects is implied or explicitly stated. The study will apply the MAS to a sample of male and female sexually abused children representing a wide age range. The study will attempt to validate conclusions by Tuber (1992) about gender differences and bi-modality of distribution of MAS scores. Finally, the study will examine differences between mean and modal object relations scores.

Hypotheses

The Mutuality of Autonomy Scale (Coates & Tuber, 1988; Urist, 1977; & Urist & Shill, 1982) measures object relations development as the level of progression toward separation-individuation. It emphasizes the ability "to experience self and other as mutually autonomous within relationships" (Urist, 1977, p.4). This capacity emerges from an innate ability to relate to others which matures as children progress through developmental phases which are strongly affected by the quality of early nurturing experiences (Fishler et al., 1990). Normal psychic development and the ability to relate well to others has
been found to be impaired in victims of sexual abuse (Alter-Reid et al., 1986; Shearer et al., 1990; Wooley & Vigilanti, 1984). Specifically, their relationships are often characterized by anger, hostility, difficulty trusting, and blurred role boundaries, especially in victims of incest (Alter-Reid et al., 1986).

**Hypothesis one.** The first hypothesis will examine the effect of sexual abuse on object relations development by comparing differences between the mean MAS variables for the children in the abused and nonabused samples. HOR is the lowest score and is indicative of highest level of object relations. Conversely, LOR is the highest score and is indicative of pathological object relations. The average MAS score is considered to be the best indicator of current level of object relations functioning. It is measured by calculating an average (MORA) of the scores or by using the mode of the scores. The first hypothesis is that the sexual abuse group will have higher mean HOR, LOR, MORA, and MORB scores (i.e., more pathological object relations) when compared to the nonabuse group.

**Hypothesis two.** Within the abuse group, it is hypothesized that severity of abuse will be associated with more pathological object relations. Specifically, the second hypothesis is that abuse subjects who experienced genital contact and/or perpetration by a parental figure will have higher scores on MAS variables (HOR, LOR, MORA,
MORB) than those who experienced nongenital contact and/or perpetration by a nonparental figure.

**Hypothesis three.** The third hypothesis will examine the relationship between the mean and mode MAS scores. Researchers do not agree on which is more appropriate for making comparisons of typical object relations functioning (Blatt et al., 1990; Coates and Tuber, 1988; Ryan et al., 1985; Urist, 1977; Urist & Shill, 1982). Specifically, the third hypothesis predicts that MORA and MORB will be highly intercorrelated and will demonstrate similar relationships to other variables.
CHAPTER II

METHOD

Subjects

Archival data were extracted from files of children at the Dallas Child Guidance Clinic. The clinic population consisted of both abused and non-abused children. A majority of the abuse cases were referred by Child Protective Services. Non-abused clients presented with behavioral problems, school or learning problems, and other psychological symptomatology.

Mutuality of Autonomy Scale

Urist (1977) developed the Mutuality of Autonomy Scale (MAS) to assess object relations phenomena as reflected in responses on the Rorschach Inkblot Test. Mutuality of autonomy responses exhibit an explicit or implicit relationship between two or more objects. A rating from one to seven is given to each MAS response according to the portrayal of the relationship between the objects. A score of one reflects the highest level of object relations and is given when a response reflects an acknowledgement of individuality as well as mutuality in the relationship. A score of seven, the lowest level of object relations, is given when an overpowering, enveloping force is portrayed. Examples include figures which are "swallowed up, devoured,
or generally overwhelmed by forces completely beyond their control" (Urist, 1977, p.4). See Appendix B for further details on scoring criteria.

Procedure

Files were sequentially examined to determine presenting problem and presence or absence of abuse. Sexual abuse subjects were selected if sexual abuse was reported in the file and test data were available. Control subjects were selected from cases with available test data and presenting problems other than abuse. For these children, no abuse of any kind (including physical abuse and neglect) was documented. Cases involving suspected but unsubstantiated abuse were not included in either group. Children with a measured full scale IQ of 75 or less were excluded from the study, as were children with less than 14 Rorschach responses.

Background variables of gender, age, family structure (intact versus nonintact), as well as scores on intelligence and achievement tests were recorded. Protocols for projective tests, including the Rorschach, were obtained.

For the subjects in the abuse group, severity of abuse was assessed from data available in the clinic files. Two variables were recorded: (a) the nature of the act perpetrated (genital versus nongenital contact); and (b) the relationship between the child and the perpetrator (parental versus nonparental role).
MAS responses were extracted from each Rorschach protocol and typed on a sheet with only a code number as identification. A brief scoring manual published by Coates and Tuber (1988) provided scoring guidelines. Using MAS responses from subjects not included in the study, three raters were trained in a series of sessions until adequate interrater agreement was established (percent exact agreement = 85; percent within one point = 93). Each MAS response from both the abuse and nonabuse groups was rated independently by two of the three raters. Raters were blind to all identifying data. When responses received different scores from the initial two raters, a third rater also scored the response. When two of the three raters agreed on a score, that score was used. In cases where none of the raters agreed on a score, an average of the three ratings was calculated.

To test for homogeneity between the abuse and nonabuse groups, significance tests were performed on the following variables: age, FSIQ, gender, ethnicity, family structure, and parental SES.

The number of Rorschach responses (R) and the number of object relations responses (NOR) were compared between groups, as was the distribution of a measure of Rorschach productivity, (R minus NOR).

Comparisons were made between the sexually abused children and clinical controls on the following MAS
variables: HOR, LOR, MORA, and MORB. These same variables were examined for within-group differences between children who experienced more severe versus less severe forms of abuse.
Sample Characteristics

The sample consisted of 63 sexual abuse subjects and 60 nonabuse clinical controls. No significant differences between the groups were found with respect to age, t (121) = 1.21, p = .23, gender, \( X^2 (1) = .589, p = .44 \), ethnicity, \( X^2 (3) = 2.46, p = .48 \), or family structure, \( X^2 (1) = .35, p = .55 \). The age range among abuse subjects was 5 years, 1 month to 17 years, 6 months, with a mean age of 11 years, 5 months. Controls ranged in age from 5 years, 6 months to 16 years, 7 months, with a mean age of 10 years, 10 months. Twenty-one males and 42 females comprised the abuse group, and 24 males and 36 females comprised the nonabuse group.

Significant differences were found on Full Scale IQ, with the nonabused children (n = 54) scoring an average of 6.6 points higher than abused subjects (n = 51), t (103) = -2.83, p = .006. Verbal IQ was also higher in the nonabuse group, t (96) = -2.66, p = .009. Performance IQ did not differ between the two groups, t (96) = -1.84, p = .07.

Within the sexual abuse group, 42 subjects (67%) had experienced genital contact and 7 (11%) had experienced non-genital contact. Information pertaining to nature of
contact was unavailable for the remaining 14 sexual abuse subjects. In nearly two-thirds of the cases, perpetrators were parental figures. Nonparental figures were the perpetrators in 30% of the sexual abuse cases. Data on role of the perpetrator were unavailable in three of the cases.

**Preliminary Analyses.**

A total of 13 subjects (7 abused and 6 nonabused) gave no MAS responses. These were eliminated from further analyses. The remaining subjects \( N = 123 \) gave between 1 and 17 MAS responses (NOR), with the sexual abuse subjects giving significantly more than their nonabuse counterparts, \( t(121) = 2.03, p < .05 \). The groups did not differ significantly with respect to the total number of Rorschach responses given, \( t(121) = -1.71, p = .09 \). Table 1 reports the means and standard deviations of IQ measures, NOR, and R. Due to the difference in NOR between the groups, the Kalter-Marsden (1970) method of determining whether to control for Rorschach productivity was employed. This revealed that the variable R-NOR (derived by subtracting NOR from R) needed to be partialled out as a covariate when examining the association of NOR to group. Once R-NOR was controlled for, the association of NOR to groups was not significant (see Table 2).

Interrater reliability was calculated as percent agreement between the initial two raters on each response.
Exact agreement was 83%, and agreement within one point was 91%.

Of the 2847 Rorschach responses given, 552 (19.4%) were scorable with the MAS. The distribution of MAS scores for the entire sample was unimodal, with a score of 2 given to 45% of the MAS responses. Table 3 reports the distributions of MAS scores for the two groups.

Correlation coefficients (Spearman's rho) were calculated to examine relationships between intelligence and MAS variables. FSIQ was found to be significantly positively correlated with LOR, $r (105) = .25$, $p = .005$, MORA, $r (105) = .24$, $p = .24$, and MORB, $r (105) = .21$, $p = .03$, indicating that subjects with higher measured intelligence gave more pathological responses. Higher FSIQ was also significantly positively correlated to the number of responses at scale point 3, Pearson's $r (105) = .20$, $p < .05$. FSIQ was negatively correlated with age, $r (105) = -.25$, $p < .01$, indicating that younger subjects scored higher on measures of intelligence than older subjects in this sample.

Age was not significantly correlated to LOR, MORA, or MORB, but was negatively associated with HOR, Spearman $r (123) = -.25$, $p = .002$. Age was also significantly correlated with frequency of scale point 1 responses, Pearson's $r (123) = .23$, $p < .05$. As would be expected, HOR and scale point 1 were highly correlated, Spearman $r (123) =$
-.85, p < .001. This suggests that older subjects were more likely to give healthy responses in general, and scale point 1 responses in particular. In addition, the number of MAS responses increased with age, Pearson r (123) = .20, p < .05. Significant correlations are listed for the total sample and by group in Table 4.

As expected, distribution of HOR scores was unimodal and positively skewed. Scores at scale points 1 and 2 accounted for 37% and 48%, respectively, of total HOR. Also as expected, the distribution of LOR scores was negatively skewed and bimodal. The mode of 6 (41% of total LOR) was unanticipated. Scale points 5 and 2 made up 19% and 18% respectively of the LOR scores. Twenty-five of the MAS protocols did not have a single modal score. Of the remaining 98, MORB was unexpectedly at scale point 2 (42% of total MORB). Table 5 reports distributions of high, low, and middle MAS scores by group.

**Analysis of Hypotheses**

To test the first hypothesis, t-tests were performed comparing the means of the abuse and nonabuse groups on each of the MAS variables. No significant differences were found on HOR, t (121) = -.41, p = .34, one-tailed; LOR, t (121) = .41, p = .34, one-tailed; MORA, t (121) = -.66, p = .26, one-tailed; or MORB, t (98) = -.59, p = .28, one-tailed.

Because distributions of MAS variables were skewed, assumptions about normality were not met and additional
nonparametric comparisons of means were performed. Results of Mann-Whitney U tests were consistent with the t-tests. No differences were found in mean rank between the abuse and nonabuse groups on HOR, $z (123) = -.18, p = .43$, one-tailed; LOR, $z (123) = -.312, p = .38$, one-tailed; MORA, $z (123) = -.64, p = .26$, one-tailed; or MORB, $z (98) = -.59, p = .28$, one-tailed.

Since nonparametric and parametric comparisons yielded similar results (refer to Table 6), MAS variables were analyzed with parametric multivariate measures. MANCOVA was performed to examine the effects of intelligence and number of MAS responses. Mean values of the dependent variables HOR, LOR, MORA, and MORB were compared on the independent variable group with FSIQ and NOR as covariates. Covariate effects were significant with Wilks' Lambda $= .47, F(2, 78) = 8.59, p < .001$, but no main effect was found, with Wilks' Lambda $= .97, F(1, 78) = .54, p = .71$. Therefore, with the effects of intelligence and response productivity partialled out, the first hypothesis was not supported. There was no evidence that the groups differed with respect to the nature and quality of object relations responses.

To test the second hypothesis, MANOVA was performed to determine effects of severity of abuse on level of object relations functioning. Dependent variables (mean HOR, LOR, and MORA scores) were compared with respect to both the type of abuse (genital vs. nongenital) and the role of the
perpetrator (parental vs. non-parental). No significant main effect was found with Wilks' Lambda = .98, F (1, 44) = .76, p = .36. A separate two-way ANOVA was run with MORB. There was no significant main effect, F (2) = .09, p = .14, one-tailed. Therefore, the second hypothesis was not supported. There was no evidence that the subjects who experienced more severe forms of abuse gave more malevolent object relations responses.

To test the third hypothesis regarding similarity of MORA and MORB, a series of Spearman correlation coefficients was calculated. MORA and MORB were highly intercorrelated, r (98) = .76, p < .001. In addition, they were both significantly correlated to FSIQ, HOR, and LOR; neither was correlated to group (see Table 4). MORB was significantly correlated to NOR, r (98) = -.19, p = .03, but MORA did not correlate to NOR, r (123) = -.09, p = .16. Refer to Table 7 for comparison of correlations of MORA and MORB to other variables. Therefore, the third hypothesis was supported. MORA and MORB are intercorrelated and interchangeable as measures of typical object relations response.

**Exploratory Analyses**

**Effects of abuse.** Further analyses were performed to examine other meaningful differences between the sexual abuse subjects and the clinical controls. Each scale point was examined using MANCOVA with FSIQ and R-minus-NOR as covariates. Within cells regression revealed significant
effects of the covariates, with Wilks' Lambda = .76, $F(2, 101) = 1.96, p = .023$). No significant main effect was found, Wilks Lambda = .93, $F(1, 101) = 1.06, p = .39$.

In addition to examining individual scale points, a difference score was calculated between each subject's highest and lowest MAS score. It was hypothesized that the difference score would represent the "repertoire" (Urist, 1977, p.9) of object relations functioning for each subject. The mean range of responses was 2.59 for the sexual abuse subjects and 2.37 for the nonabuse controls. This difference was nonsignificant, $t(121) = .67, p = .51$.

Twenty-five percent of the sample had a range of four points, while 23% had no difference between highest and lowest score. Only one of the 123 subjects scored at both extremes of the scale.

**Gender differences.** Gender differences with respect to MAS scores have been reported (Tuber, 1992). Exploratory analyses were performed to examine gender differences in this sample. Because the two groups had similar distributions of scores (see Table 3) and few inter-group differences were found, males and females were grouped without regard for presence or absence of abuse.

Gender comparisons were made based on groups of 78 females (63%) and 45 males (37%). T-tests revealed no differences on any of the MAS variables (HOR, LOR, MORA, MORB) nor on any of the MAS scores (1 to 7). Males and
females did not differ with respect to intelligence, $t(103) = .84, p = .40$, two-tailed; number of MAS responses, $t(121) = -.24, p = .81$, two-tailed; or response productivity, $t(121) = .42, p = .68$, two-tailed.
CHAPTER IV
DISCUSSION

This study failed to support hypotheses that victims of sexual abuse would manifest more pathological object relations than clinical controls when their Rorschach responses were scored with the Mutuality of Autonomy Scale (Urist, 1977). Similarly, MAS did not differentiate subjects experiencing more severe forms of sexual abuse from those experiencing less severe forms of abuse. In addition, the study was unable to replicate the results reported by Tuber (1989) when the MAS was applied to a normative sample. The positively skewed unimodal distributions of scores for the two groups in this study were quite similar to each other, but different from the bimodal distributions reported in at least four other studies (Goddard & Tuber, 1989; Meyer & Tuber, 1989; Tuber, 1989; and Tuber & Coates, 1989). Failure to find expected differences cannot be attributed to disparity of intelligence or response productivity between the two groups, but may be a function of the sample studied and/or the scale used to measure differences.

The null hypothesis of this study, that no differences exist between the sexual abuse and nonabuse groups with respect to object relations, cannot be rejected. The failure to reject the null does not necessarily imply that
differences truly do not exist, but may imply that the instrument used in this study was insufficient to measure the differences. Some evidence that this is the case comes from a study of a subset of this sample in which poorer object representations were found in sexually abused females (Freedenfeld, 1992) using the Object Relations and Social Cognitions TAT Scoring System (Westen, Lohr, Silk, Kerber, & Goodrich, 1985). This multidimensional measure of object relations appears to be a broader assessment which taps various aspects of object relations including complexity of representations of people, affect tone of relationship paradigms, capacity for emotional investment, and understanding of social causality. Freedenfeld (1992) found that sexually abused girls evidenced impairments in affect tone and complexity of representations when compared to clinical controls. No differences were found with respect to capacity for emotional investment and understanding of social causality. Freedenfeld (1992) concluded that the trauma of abuse does not seem to have global deleterious effects, but rather impairs certain aspects of object relations. It would appear that the dimension of object relations assessed by the MAS is similar to the dimension of capacity for emotional investment on the Westen et al. (1985) scoring system. If that is the case, the lack of differences in this study along that dimension are not surprising. The results of Freedenfeld's (1992) study do
not support the conclusion that the two groups in this study do not differ with respect to object relations. They do support the notion that the unidimensional nature of the MAS may not be sensitive enough to discriminate subtle but important distinctions in object relations development. This suggests that failure to find differences is at least in part a function of the measure utilized.

The lack of differentiation between the sexually abused and nonabused subjects could also be explained as a function of the nature of the sample. Selection for the abuse group was based on documented reports of sexual abuse. Absence of documented abuse in the control group did not preclude the presence of abuse. One of the difficulties in conducting research related to sexual abuse is that cases frequently go unreported. Researchers have no guarantees that the cognitive, affective, and behavioral symptoms in clinical controls are not attributable to unreported abuse. In this study, the sexually abused subjects and the clinical controls were demographically similar. High percentages of children in both groups were from non-intact families. This indicates that the development of a majority of the children in both groups had likely been influenced by similarly poorly functioning family units. Thus the groups seem to share characteristics which affect object relations development in similar ways, making differences more difficult to measure.
Another difficulty with this sample is that nonuniform Rorschach administration is likely to have weakened the power of the MAS to detect differences between the groups. In a majority of reported MAS studies, the Rorschach has been administered with the goal of applying the MAS to the responses. In the present study archival data were used. Rorschachs were administered by numerous clinicians with varying styles. In many cases, prompts upon inquiry were insufficient to accurately score responses. Use of archival data can be problematic because while it improves external validity and generalizability, it may compromise internal validity.

Failure to find expected differences in MAS scores can also be ascribed to the positive skew of scores, with more scores at scale point 2 and fewer scores at scale point 5 than in other samples. This led to the unexpected finding that the sexually abused and nonabused subjects in this sample received healthier scores than children in other studies of both clinical and normative samples. Thus, it may appear that the children experienced no negative effects of abuse. However, the occurrence of a unimodal, positively skewed distribution may be an anomalous finding which reflects an artificially high percentage of responses scored at scale point 2. This anomaly can be explained in two ways: (a) as a function of systematic rater bias, and (b)
lack of differentiation of scoring criteria at scale point 2.

The lack of bi-modality in the present sample may be attributable to varying scoring styles across studies. It is possible that systematic scoring differences exist between the raters of this sample and the raters of the main researcher of the test. Although Coates and Tuber (1988) included scoring guidelines as an appendix to a book chapter, a comprehensive scoring manual has not been published. This precludes uniform scoring by different research groups and may compromise interstudy interrater reliability. Therefore, the heavily positive weighting of scores in the present sample may be a function of an artificially high percentage of responses receiving scores at scale point 2.

Evidence for this notion comes from examining the distribution of scores at the pathological end of the scale. While the subjects in the present sample gave fewer responses involving magical control and coercion (scores of 5), they did not systematically lack malevolent responses. They gave a higher proportion of scale point 6 (15% of responses) than Tuber's (1989) normative sample (7% of responses), indicating more preoccupation with themes of decidedly destructive overpowerment than in the normative sample. Thus there was evidence that the children in this sample were expressing primitive aggressive impulses. Yet
when an index of malevolent responses (percent of responses at points 5, 6, and 7) was calculated, the sexually abused and nonabused subjects gave a smaller total proportion of malevolent responses than the normative sample. This indicates that healthier scores in this sample were due not only to a higher proportion of scores of 2, but also a lower proportion of scores of 5 than is characteristic of other samples. Seventy-eight percent of the interrater disagreement in this study involved one or both of these scale points.

The positive unimodal distribution of MAS scores may have resulted from rater bias, or may be a function of lack of differentiation at scale point 2. In the present sample, responses scored 2 frequently involved nothing more than the parallel activity of two objects. While no malevolence is implied in these responses, there is insufficient evidence of the collaborative and cooperative nature of the relationship by which Urist (1977) described scale point 2. It is possible that parallel activity responses correspond developmentally with the stage in which children engage in parallel play. Interactive play comes at a later stage and is often accompanied by collaboration and cooperation. A score of 2 appears to represent a higher level of object relations than that which is reflected in a response conveying parallel activity with little recognition of one object by another. For example, "Two bears climbing a
mountain" on Card VIII conveys minimal or no interaction between the objects, whereas "Two women cooking dinner in a big pot" on Card III implies that the objects are interacting in at least a minimally cooperative, collaborative manner. Both of these responses are scored 2 according to MAS criteria, yet only one response reflects an actual awareness of separateness.

One case in the literature illustrates this point. Tuber (1989a) reported that one child's 10 MAS responses, each involving "parallel activity in which two figures performed, oblivious to one another" (p. 439), received MAS scores of 2. After therapeutic contact with the child, Tuber concluded that "her parallel Rorschach object representations were not truly separate yet mutual representations; instead, her repetitive, bland depictions of interaction may have helped her ward off more dangerous representations of self and others" (p. 439). In the present sample, it is possible that the high number of responses scored 2 coupled with the low number of scores of 5 reflect defensive reactions (parallel activity responses) to a threateningly ambiguous task. The high MAS scores may signify fantasies of wish-fulfillment in which the subjects express desires for healthy cooperative relationships. Especially in protocols containing HOR of 2 and LOR of 6, subjects may be defensively splitting responses as all good or all bad. Alone, structural analysis of scores often
provides an insufficient clinical picture, making content analysis essential in some cases.

More scale point differentiation on the MAS would address the problem of giving artificially high scores to what appear to be either benign reactions to the symmetry of the inkblots or defensive reactions to their ambiguity. While responses indicating parallel activity do not seem on par with collaborative/cooperative responses, they do seem to reflect a developmental progression past the anaclitic/dependent stage at which responses are scored 3. Differentiation at scale point 2 via creation of another scoring category for parallel activity responses would likely provide the MAS with more meaningful and discriminative properties.

The hypothesis that more severe forms of abuse would be associated with more malevolent object relations was not supported. The same arguments about reasons between-groups differences were not found apply to the within groups analysis. The failure to find differences may also be due to the low number of subjects who met the criteria for less severe forms of abuse. The low frequency of occurrence of in this sample is considered to be reflective of the actual prevalence in the population of genital versus nongenital abuse perpetrated by parental versus nonparental figures.

The hypothesis that mean and modal MAS scores would be highly associated was supported. These two scores were
significantly intercorrelated, and they related similarly to other variables including FSIQ, age, response productivity, MOR, and LOR. Differences in significance of correlation to NOR and R may be accounted for by the cases for which MORA was available but MORB was not. While mean and modal MAS scores are interchangeable, mean MAS may be more useful because it can be calculated for every subject.

**Exploratory Findings**

An intriguing finding of this study was that the sexually abused children gave significantly more object relations responses than their nonabused counterparts. To date no researcher has addressed the clinical implications of giving no or few responses versus many responses, and norms do not exist for NOR. The average NOR in reported studies varies from 4 responses for the nonabused children in this sample to over 8 in Tuber and Goddard's (1989) sample of boys with Separation Anxiety Disorder. In the present sample, number of responses ranged from 0 to 17. Equal proportions of subjects in each group gave no MAS responses. The greatest number of MAS responses given by an abuse subject was 17, whereas the most given by a control was 12. At this time, the meaning of NOR is speculative at best. Perhaps the abuse subjects were more preoccupied with relational themes than were the nonabuse subjects.

If the lack of scorable MAS responses in this study is not an artifact of archival research, perhaps it is
pathognomic. Failure to give at least one response in which two or more objects share an implicit or explicit relationship may be indicative of either an incapacity or unwillingness to engage in external relationships or a strong defense against disclosing internal representations. This would especially be true if the entire Rorschach record contained few or no human responses, signifying the inability to be empathic and form relationships (Cooper & Arnow, 1989; Mayman, 1967).

Conversely, a preponderance of MAS response may signify pathology in the form of overinvolvement in relationships. As literature on borderline personality disorder points out, borderlines rarely lack the ability to form relationships. Yet their relationships are often short-lived, highly cathexed, and characterized by splitting. Borderlines (of which a large proportion have experienced sexual abuse, Herman et al., 1989) might be expected to give a greater number of MAS responses in which quasi-humans, animals, or inanimate objects are relationally portrayed (Sugarman, Bloom-Feshbach, & Bloom-Feshbach, 1980).

Somewhat relatedly, the higher NOR in the abuse group may be an artifact of a high number of parallel activity responses which are not relationally-oriented. Tuber (1989a, 1992) reported five case examples in which high and low MAS scores from protocols of average length (4 to 6 MAS responses) were reflective of object relations capacity
within the context of therapy. Another child gave 10 responses, all of which involved benign parallel activity and received scores of 2. These scores were not useful as prognostic indicators. In this example, neither the high number of scores nor the high scores themselves were associated with higher level object representations. However, if the record had contained a high number of malevolent MAS responses, it would have likely served as a clinical indicator for distress. More research is needed to explore the meaning of the number of object relations responses given by a subject on the Rorschach.

In this study, NOR was significantly correlated with HOR and with age. Older children gave more MAS responses. They also gave more responses scored 1 and consequently had healthier HOR scores. The question arises whether these associations are due to developmental factors or the increased chance of giving an extreme score as a function of number of responses. Urist (1977) espoused the scale as a developmental measure, but has been challenged on this point (Tuber, 1992). The association of age to HOR and scale point 1 supports the developmental notion. The association of NOR and HOR supports the idea that as the number of responses increased, so did the chances of giving an extreme score at scale point 1. The positive correlation between age and NOR suggests that number of MAS responses is developmentally linked. This is true of Rorschach responses
in general; the number of responses for a valid protocol is lower for children than for adults (Exner, 1986). Therefore, these data support the developmental nature of the scale.

The relationship between IQ, age, and MAS variables is intriguing. Higher FSIQ was associated both with more pathological LOR, MORA, and MORB scores, and with younger age. It is possible that the young children in the sample gave less developed object relations responses. This, coupled with the finding that older children are more likely to give responses scored at scale point 1 corroborates the notion that the MAS measures developmental progression.

Perhaps it would be useful to divide the subjects into age categories (e.g., early, middle, and late childhood, and adolescence) to make further comparisons of the effects of development on responses. In the present study, children of 5 years of age were compared with children up to 17 years of age. The level of cognitive, physical, and psychological development of a child just starting school is markedly different from that of a child who is nearing graduation from high school. It is possible that the age range of this sample was too broad, introducing a cognitive confound. Children of young ages are less able to abstract than older children, and their ability to symbolize material is more limited. This may have affected the qualitative nature of responses. Developmental comparisons among age categories
may provide more information about how children of different ages and developmental levels differentially score on the MAS.

The sexual abuse subjects in this study had significantly lower Full Scale IQ and Verbal IQ than nonabused controls. No difference between the groups was found with respect to Performance IQ. This corroborates Westen et al.'s (1990) finding in a sample of sexually abused female adolescents. It appears that sexual abuse impairs cognitive functioning in areas which may hamper traditional learning.

Finally, despite violations of assumptions of normality of distribution of MAS scores and MAS variables, parametric tests yielded results similar to nonparametric tests. This suggests that parametric testing can be cautiously applied to the MAS. Nonparametric methods may be preferable but do not accommodate covariates, large numbers of comparisons, or multiple dependent and/or independent variables. Thus, parametric procedures may be warranted in certain instances.

Conclusions and Recommendations

The failure to find hypothesized differences with respect to presence and severity of abuse in this sample is likely a function of heterogeneity of Rorschach administration and discrepancies in MAS scoring. Rorschachs in this study were not administered with the goal of applying the MAS and responses often conveyed less than
optimal information for making scoring decisions. The raters in this study may have scored responses systematically differently than did the raters of other studies. This could be ascertained by having the raters of the major publisher of work with the MAS re-rate the data, making comparisons of the two ratings. The lack of a comprehensive scoring manual may have contributed to different scoring styles across researchers. A more extensive scoring manual would increase interrater reliability.

The preponderance of ratings at scale point 2 suggests that too healthy a score is given for parallel activity. Many of theses responses appear to be reactions to the symmetry of the blot which convey little or no recognition of the separateness warranted by the score. Content analysis in these cases may be useful in making judgements about true level of object representation. The creation of a new scale point which is situated between the collaborative/cooperative criteria of scale point 2 and the anaclitic/dependent criteria of scale point 3 may give the MAS more discriminating properties. A future study may apply the revised scoring criteria to the data from this sample to determine if intergroup differences exist.

This study provided evidence that mean and mode MAS scores can be used interchangeably. The mean of MAS scores may be a more useful measure for research since it can be
calculated for each subject, whereas a single modal score cannot always be determined.

The developmental nature of the MAS has not been firmly established. However, age correlations in this study suggest that further research is warranted to determine the role of developmental factors on the scale. Comparisons by developmental age categories may provide information about how younger and older children differentially respond with respect to object relations.

Full Scale and Verbal IQ were lower for abused subjects than for nonabused controls. More research is needed to examine the effect of sexual abuse on cognitive functioning.

Parametric testing may be cautiously applied to the MAS variables, especially when multiple variables are involved in analysis.

Future research could correlate MAS scores with the capacity for emotional investment scores on the Object Relations and Social Cognitions TAT Scoring System. This would help determine if the dimension of object relations measured by the MAS is related to one's ability to form relationships. Other research has shown that sexual abuse victims are not greatly impaired with respect to forming relationships, but that the nature of the relationships may be more malevolent or pathological. The quality of relationships could be tested by comparing the abuse and nonabuse groups on the frequency of human, animal, or
inanimate percepts on the Rorschach. Sexual abuse subjects would be expected to give fewer human contents, an indication of regressed or slower development.
APPENDIX A

TABLES
Table 1

T-Test Comparisons Between Groups

<table>
<thead>
<tr>
<th></th>
<th>Abuse</th>
<th>Nonabuse</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Mean</td>
</tr>
<tr>
<td>FSIQ</td>
<td>54</td>
<td>92.91</td>
</tr>
<tr>
<td>VIQ</td>
<td>49</td>
<td>91.14</td>
</tr>
<tr>
<td>PIQ</td>
<td>49</td>
<td>96.29</td>
</tr>
<tr>
<td>NOR</td>
<td>63</td>
<td>5.08</td>
</tr>
<tr>
<td>R</td>
<td>63</td>
<td>21.97</td>
</tr>
<tr>
<td>R-NOR</td>
<td>63</td>
<td>16.89</td>
</tr>
</tbody>
</table>

* p < 0.05; ** p < 0.01
Table 2

Relationship of R and NOR to Groups

<table>
<thead>
<tr>
<th>Correlation of:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Group and NOR</td>
<td>-0.182*</td>
</tr>
<tr>
<td>Group and R-NOR</td>
<td>0.176*</td>
</tr>
<tr>
<td>NOR and R-NOR</td>
<td>-0.391***</td>
</tr>
<tr>
<td>Group and NOR with R-NOR partialled out</td>
<td>-0.125a</td>
</tr>
</tbody>
</table>

a nonsignificant

* p < 0.05; *** p < 0.001
Table 3

Distribution of MAS Scores By Group

<table>
<thead>
<tr>
<th>Score</th>
<th>Abuse&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Nonabuse&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Total&lt;sup&gt;c&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>#</td>
<td>%</td>
<td>#</td>
</tr>
<tr>
<td>Score 1</td>
<td>37</td>
<td>11.6</td>
<td>35</td>
</tr>
<tr>
<td>Score 2</td>
<td>151</td>
<td>47.5</td>
<td>97</td>
</tr>
<tr>
<td>Score 3</td>
<td>28</td>
<td>8.8</td>
<td>29</td>
</tr>
<tr>
<td>Score 4</td>
<td>23</td>
<td>7.2</td>
<td>13</td>
</tr>
<tr>
<td>Score 5</td>
<td>33</td>
<td>10.4</td>
<td>22</td>
</tr>
<tr>
<td>Score 6</td>
<td>45</td>
<td>14.2</td>
<td>37</td>
</tr>
<tr>
<td>Score 7</td>
<td>1</td>
<td>0.0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>318</td>
<td></td>
<td>234</td>
</tr>
</tbody>
</table>

<sup>a</sup> n = 63
<sup>b</sup> n = 60
<sup>c</sup> N = 123
### Table 4

**Intercorrelations of Comparison Variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Total</th>
<th>Abuse</th>
<th>Nonabuse</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOR and RNOR</td>
<td>-0.391***</td>
<td>-0.412***</td>
<td>-0.320**</td>
</tr>
<tr>
<td>HOR</td>
<td>-0.415***</td>
<td>-0.362**</td>
<td>-0.479***</td>
</tr>
<tr>
<td>LOR</td>
<td>0.227**</td>
<td>0.317**</td>
<td>n.s.</td>
</tr>
<tr>
<td>MORB</td>
<td>-0.189*</td>
<td>n.s.</td>
<td>n.s.</td>
</tr>
<tr>
<td>Age</td>
<td>0.179*</td>
<td>0.237*</td>
<td>n.s.</td>
</tr>
<tr>
<td>R and RNOR</td>
<td>0.896***</td>
<td>0.826***</td>
<td>0.956***</td>
</tr>
<tr>
<td>HOR</td>
<td>n.s.</td>
<td>0.242*</td>
<td>n.s.</td>
</tr>
<tr>
<td>LOR</td>
<td>0.190*</td>
<td>0.350**</td>
<td>n.s.</td>
</tr>
<tr>
<td>MORA</td>
<td>0.163*</td>
<td>0.309**</td>
<td>n.s.</td>
</tr>
<tr>
<td>RNOR</td>
<td>HOR</td>
<td>0.235**</td>
<td>n.s.</td>
</tr>
<tr>
<td>Age</td>
<td>-0.174*</td>
<td>-0.219*</td>
<td>n.s.</td>
</tr>
<tr>
<td>HOR</td>
<td>LOR</td>
<td>0.159*</td>
<td>n.s.</td>
</tr>
<tr>
<td>MORA</td>
<td>0.512***</td>
<td>0.560***</td>
<td>0.415***</td>
</tr>
<tr>
<td>MORB</td>
<td>0.551***</td>
<td>0.560***</td>
<td>0.514***</td>
</tr>
<tr>
<td>Age</td>
<td>-0.252**</td>
<td>-0.288*</td>
<td>-0.217*</td>
</tr>
<tr>
<td>LOR</td>
<td>MORA</td>
<td>0.811***</td>
<td>0.794***</td>
</tr>
<tr>
<td>MORB</td>
<td>0.407***</td>
<td>0.361**</td>
<td>0.473***</td>
</tr>
<tr>
<td>MORA</td>
<td>MORB</td>
<td>0.755***</td>
<td>0.767***</td>
</tr>
<tr>
<td>Gender</td>
<td>Age</td>
<td>0.249**</td>
<td>n.s.</td>
</tr>
</tbody>
</table>

* p < .05; ** p < .01; *** p < .001
Table 5

Distribution of MAS Variables by Group

<table>
<thead>
<tr>
<th></th>
<th>MAS Score</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>HOR</td>
<td></td>
</tr>
<tr>
<td>Abuse</td>
<td>23 31 2 2 2 3 0</td>
</tr>
<tr>
<td>Control</td>
<td>22 28 3 1 0 6 0</td>
</tr>
<tr>
<td>Total</td>
<td>45 59 5 3 2 9 0</td>
</tr>
<tr>
<td>LOR</td>
<td></td>
</tr>
<tr>
<td>Abuse</td>
<td>0 12 6 5 13 26 1</td>
</tr>
<tr>
<td>Control</td>
<td>1 10 9 5 10 24 1</td>
</tr>
<tr>
<td>Total</td>
<td>1 22 15 10 23 50 2</td>
</tr>
<tr>
<td>MORB</td>
<td></td>
</tr>
<tr>
<td>Abuse</td>
<td>2 36 1 3 1 8 0 12 a</td>
</tr>
<tr>
<td>Control</td>
<td>4 26 5 1 1 10 0 13 a</td>
</tr>
<tr>
<td>Total</td>
<td>6 62 6 4 2 18 0 25 a</td>
</tr>
</tbody>
</table>

a Number of multi-modal protocols.
### Table 6
Comparison of Results of Parametric and Nonparametric Tests of Group Differences

<table>
<thead>
<tr>
<th>Test Used</th>
<th>Abuse (n = 63)</th>
<th>Nonabuse (n = 60)</th>
<th>t-test</th>
<th>Mann-Whitney U</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean (S.D.)</td>
<td>Mean (S.D.)</td>
<td>t</td>
<td>p</td>
</tr>
<tr>
<td></td>
<td>2.02 (1.26)</td>
<td>2.12 (1.45)</td>
<td>-.41</td>
<td>.34</td>
</tr>
<tr>
<td></td>
<td>4.60 (1.59)</td>
<td>4.48 (1.64)</td>
<td>.41</td>
<td>.34</td>
</tr>
<tr>
<td></td>
<td>3.06 (1.15)</td>
<td>3.21 (1.28)</td>
<td>-.66</td>
<td>.26</td>
</tr>
<tr>
<td></td>
<td>2.78 (1.56)</td>
<td>2.98 (1.73)</td>
<td>-.59</td>
<td>.28</td>
</tr>
</tbody>
</table>

Note: None of the t or z values is significant, and p values are based on one-tailed tests.

* n (abuse) = 51, n (nonabuse) = 47.
Table 7

Comparison of Correlations of MORA and MORB to Other Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>MORA&lt;sup&gt;a&lt;/sup&gt;</th>
<th>MORB&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOR</td>
<td>-.09</td>
<td>-.19*</td>
</tr>
<tr>
<td>R</td>
<td>.16*</td>
<td>.09</td>
</tr>
<tr>
<td>R minus NOR</td>
<td>.14</td>
<td>.09</td>
</tr>
<tr>
<td>FSIQ</td>
<td>.24**</td>
<td>.21*</td>
</tr>
<tr>
<td>Age</td>
<td>-.17*</td>
<td>-.14</td>
</tr>
<tr>
<td>HOR</td>
<td>.51***</td>
<td>.55***</td>
</tr>
<tr>
<td>LOR</td>
<td>.81***</td>
<td>.41***</td>
</tr>
</tbody>
</table>

Note: Values based on Spearman $\rho$ correlation of nonparametric data. Correlation between MORA and MORB was significant at $\rho = .76$, $p < .001$.

<sup>a</sup> $N = 123$

<sup>b</sup> $N = 98$

* $p < .05$; ** $p < .01$; *** $p < .001$
APPENDIX B

MUTUALITY OF AUTONOMY SCALE
Mutuality of Autonomy Scale (MAS)
Derived From Urist (1977) and Urist & Shill (1982)

"Mutuality of Autonomy refers to the degree to which people in relationships are conceived of, by the subject, as psychologically autonomous; as possessing an enduring, inherent psychic existence. The subject experiences others as possessing a self, while at the same time objectively recognizes his or her own existence as one object among many. Both self and others are simultaneously experienced by the subject as possessing an identity, a will, and the subjective, affective experience of selfhood. The subject conceives of relationships as respecting these attributes independently of fluctuations in the need state of either one's self or of the other individual within the relationship." (Urist & Shill, p. 451)

The following are the seven points on the developmental scale of object relations:

1. Reciprocity-Mutuality

Figures are engaged in some relationship or activity where they are together and involved with each other in such a way that conveys a reciprocal acknowledgement of their respective individuality. The image contains explicit or implicit reference to the fact that the figures are separate and autonomous and involved with each other in a way that recognizes or expresses a sense of mutuality in the relationship.
Example: Card II, "Two bears toasting each other, clinking glasses." or "Two people having a heated argument."

2. Collaboration-Cooperation

Figures are engaged together in some relationship or parallel activity. There is no stated emphasis or highlighting of mutuality, nor on the other hand is there any sense that this dimension is compromised in any way within the relationship.

Example: Card III, "Two women doing their laundry."
Card VIII "Two animals climbing a mountain."

3. Anaclitic-Dependent

Figures are seen as leaning on each other, or one figure is seen as leaning or hanging on another. The sense here is that objects do not "Stand on their own two feet," or that in some way they require some external source of support or direction.

Example: Card I "Two men leaning on a mannikin."

4. Reflection-Mirroring

One figure is seen as the reflection, or imprint, of another. The relationship between objects here conveys a sense that the definition or stability of an object exists only insofar as it is an extension or reflection of another. Shadows, footprints, etc., would be included here.
Example: Card VIII "A tiger looking at its reflection in the water."

5. Magical Control-Coercion

The nature of the relationship between figures is characterized by a theme of malevolent control of one figure by another. Themes of influencing, controlling, casting spells are present. One figure may literally or figuratively be in the clutches of another. Such themes portray an imbalance in the mutuality of relations between figures. On the one hand, figures may be seen as powerful and helpless, while at the same time others are omnipotent and controlling.

Example: Card IX "A witch casting a spell on someone."

6. Destructive Overpowerment

Not only is there a severe imbalance in the mutuality of relations between figures, but here the imbalance is cast in decidedly destructive terms. Two figures simply fighting is not "destructive" in terms of the individuality of the figures, whereas a figure being tortured by another, or an object being strangled by another, are considered to reflect a serious attack on the autonomy of the object. Similarly, included here are relationships that are portrayed as parasitic, where a gain by one figure results on the diminution or destruction of another.

Example: Card I "A bat impaled by a tree."
7. Envelopment-Incorporation

Relationships here are characterized by an overpowering, enveloping force. Figures are seen as swallowed up, devoured, or generally overwhelmed by forces completely beyond their control.

Example: Card X "A tornado hurtling its debris everywhere."
REFERENCES


