IMPACT OF TAT CARD SELECTION ON EVALUATION OF OBJECT RELATIONS FUNCTIONING FOLLOWING CHILDHOOD PHYSICAL ABUSE

THESIS

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE

By

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May, 1997

Grissett, Dana L., Impact of TAT card selection on evaluation of object relations functioning following childhood physical abuse. Masters of Science (Psychology), May, 1997, 102 pp., 10 tables, 4 figures, references, 63 titles.

The purpose of this study is to show principles of TAT card pull are applicable to object relations theory, and card pull effects are greater in subjects with greater impairments. Stories of physically abused and control child and adolescent subjects were evaluated on object relations scales of the SCORS (Westen et al., 1985). Scores varied systematically as a function of card stimulus characteristics. Analysis of scales assessing internalization of self supported stimulus inhibition interpretation while scales measuring views of others or individual affective experiences advanced stimulus pull explanation. Abused individuals' response patterns were similar to controls except on CR. Results of this study may increase TAT utility for evaluating object relations functioning by guiding card selection.

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CHAPTER I

INTRODUCTION

Almost daily, newspapers across the United States report the suffering of children at the hands of abusive adults. The physical assault of children by those entrusted with their care, which was once believed to be a rare event perpetrated by the severely mentally ill (Kempe, Silverman, Steele, Droegemueller, & Silver, 1962), must now be recognized as a common occurrence. The fact is, despite the ever growing awareness of abuse and the increase in prosecution of child maltreatment, the ones who most often inflict physical abuse on children are the parents (and stepparents) of the victims. Three telephone surveys (Gelles, 1978; Johnson, 1990; Straus & Gelles, 1986) conducted over a 15 year period, 1975 to 1990, each showed 73% of adults consistently admitted committing violent acts against their minor children with 30 to 40% willingly acknowledging abusive violence.

Researchers have found a multitude of physical and psychosocial impairments to be associated with victims of physical abuse. Associated diagnoses have included Mental Retardation (Ammerman, Cassisi, Hersen, & Van Hasselt, 1986;

Friedrich, Einbender, & Luecke, 1983; Hoffman-Plotkin & Twentyman, 1984), Specific Developmental Disorders (Ammerman et al., 1986), Conduct Disorders (Ammerman et al., 1986; Green, 1988; Kolko, 1992; Pelcovitz et al., 1994), Anxiety and Mood Disorders (Ammerman et al., 1986; Kolko, 1992), and Post-Traumatic Stress Disorder (Ammerman et al., 1986; Famularo, Fenton, Kinscherff, Ayoub, & Barnum, 1994; Kisser, Heston, Millsap, & Pruitt, 1991; Kolko, 1992; Schwarz & Perry, 1994). However, not all childhood abuse victims face every problem which has been associated with maltreatment, and attempts to predict who will experience which difficulties by demographic variables have been unsuccessful.

Developmental theorists, such as attachment theorists, have employed a different strategy in an attempt to discover the process by which impairments evolve following abuse. Recently, in the course of this endeavor, investigators have demonstrated impaired object relations functioning in children who have suffered assorted abuses. This line of investigation may prove to be of much greater benefit in the practitioners' attempts to understand the experience of and provide useful therapy for the victims they encounter on a daily basis. One step, which may help to fill the gaps in order to more fully understand the victims' experiences, is to increase the utility of existing projective measures for

evaluating the individual's object relations functioning.

The Thematic Apperception Test (TAT) has been used to evaluate object relations functioning in clinical and control populations. Freedenfeld (1994) recently demonstrated the utility of the Social Cognition and Object Relations TAT Scoring System (SCORS) (Westen, Lohr, Silk, Kerber, & Goodrich, 1985) in the growing understanding of the evolution of dysfunction in abused children. Physically abused children were successfully differentiated from children in a matched clinical control group through their lower and more impaired object relations scores. The present study will attempt to increase the usefulness of the SCORS in the conceptualization of the experience of the physically abused victim. It will be suggested that the differentiation of physically abused subjects from clinical controls improves as a function of the TAT car Physical Abuse

The recognition of physical child abuse as a societal problem has been a long and tedious process, even though infanticide was documented as early as the first century B.C. (Radbill, 1987). By the 19th century, records throughout Europe revealed the deaths of large numbers of children through the deliberate acts of adults responsible for their care. At the same time, in Britain and the American colonies, children were forced to work in unsafe,

filthy environments where they were subjected to beatings and other cruelties under the guise of preventing idleness. Child labor laws were initiated, and the Society for the Prevention of Cruelty to Children was founded in New York in 1874 after protection was sought for a battered child through the Society for the Prevention of Cruelty to Animals. Nonetheless, children were considered the property of their parents, and the assault of children by parents was viewed as the parents' right to discipline a child. Individual perpetrators were immune from both identification and penalty (Kempe & Kempe, 1978; Radbill, 1987).

However, in the 19th century, the medical community, reluctantly, began a movement to describe and recognize child maltreatment. Still, the pleas for the protection of children, which were made by a few, went unrecognized by most, even when injuries to children were recognized as resulting from discipline administered by an angry adult; thus, denying the possibility that an adult would intentionally harm a child (Kempe & Kempe, 1978; Lynch, 1985).

It was not until 1946, when John Caffey reported unexplained X-ray evidence of multiple fractures in children, that physicians began to seriously debate the origin of traumatic injuries in children; but many still remained highly reluctant (and even resistant) to blame

parents for their children's injuries. The intentional harm of a child by an adult was not even considered until 1959 when the paper, "The Problem of Parental Criminal Neglect, and Severe Physical Abuse of Children," by Silver and Kempe was presented (Kempe & Kempe, 1978; Lynch, 1985; Radbill, 1987). The general medical community first focused on the problem of abuse with the publication of "The Battered Child Syndrome" by Kempe et al. (1962). At last, all 50 states began to pass laws requiring the reporting of suspected abuse and neglect by all professionals having contact with children (Council on Scientific Affairs, 1985; Radbill, 1987) and, thus, began to pave the way for the protection of children and the prosecution of their abusers.

Swedish psychosocial researchers were years ahead of other Euro-American societies when they established a research institute for the study of child abuse in 1957. In 1966 the British established the National Society for the Prevention of Cruelty to Children which initiated programs directed at the prevention of child abuse through parent training. Then, in 1974, the United States recognized child abuse as a societal problem and established the National Center for Child Abuse and Neglect within the Department of Health, Education, and Welfare. Organizations, such as the Children's Bureau, began sponsoring research of psychopathology and family dynamics related to child abuse.

It was soon after this that the American Humane Society initiated surveys and conferences related to abuse (Radbill, 1987; Tuohy, 1987). However, today, just as in the 19th century, abuse is still under the guise of discipline of the child by the adult.

As physical childhood abuse has become recognized as a legitimate social problem, more and more children and adults are willing to report past and present abuses and to address abuse related issues in therapy. In response, researchers and clinicians are attempting to understand the intra and interpersonal consequences of physical abuse. Object Relations theory provides a framework for the conceptualization of how physical abuse contributes to the many psychological and social impairments which have been associated with abuse.

Object Relations Theory

Object relations theorists attempt to understand the individual's past and present experiences of the self, others, interpersonal relationships, and the world. There are numerous internal and external variables which uniquely influence the experiences of the victim of childhood physical abuse. The theoretical framework provided by object relations allows for the consideration of these variables in the process of understanding the individual victim's experience.

Object relations theorists posit a developmental socially interactive theory of personality. Through their initial interactions with the mother or primary caregiver, an individual develops internal representations of themselves, others (objects), and relationships. In the subsequent discussion, "mother" will refer to the person or persons providing the predominant care for the child, regardless of gender or biological relationship. Internal representations become fantasies of self, objects, and relationships which coexist with reality (Sandler & Sandler, 1978). Over time, these representations are conceptually generalized to other social interactions.

The new born child enters the world without an experience of self. Initial awareness is limited to the sensations of tension and pleasure (reduction of tension) without any concept of their sources. This experience might be described as being diffused throughout the environment. The ihe infant is physically separated from the mother with the cutting of the umbilical cord, psychic separation from her is a gradual, and, at times, a tenacious process. As the infant comes to experience the self as existing in the world rather than through the world, a special relationship is developed with the mother (first/primary object) in which infant and mother form a solitary unit. At this stage, the mother demonstrates an empathy for the infant through the

gratification of basic human needs despite the infant's inability to verbally communicate those needs. At this early stage the infant does not recognize good or bad maternal care. Instead, only the awareness of satisfaction or frustration exists (Winnicott, 1967).

As the infant develops awareness that the skin provides a boundary between self and that which is external to self, the concept of internal (needs) and external (gratification) sensations are developed with internal needs or drives being satisfied by the external source of the mother. As the infant is becoming aware of specific needs for maternal care, memory associations, or traces, of pleasure provided by the mother are developed through the gratification of basic needs which reduce the tension caused by the unmet needs. This experience of pleasure (gratification) and displeasure or frustration (tension) is the first division in the infant's representational world. The infant anticipates needs being met by the good (gratifying) object, which is now sought, while avoiding the bad (frustrating) object (Mahler, 1966; Mahler, 1972). Unable to tolerate even short periods of unrelieved tension, the infant displaces frustration onto the mother as the bad object. A fantasy relationship with the mother as an internalized object is developed; and through conscious and unconscious wishes, discomfort or pain (frustration) is removed and

feelings of comfort or safety (gratification) are restored. The infant avoids the mother as the bad object in the only way available, through fantasy of the good object (Sandler & Sandler, 1978). Both fantasies and fears surrounding the internal representations of self, object, and relationship emerge (Westen, 1991a). Memory traces of gratification allow the development of tolerance for delays in gratification. These memory traces further set the stage for the infant's movement toward differentiation between the mother and other people (objects) in the environment (Winnicott, 1967).

Secure in the knowledge that needs will be met by the mother, the infant's attention now freely oscillates from internal and external sensations (Mahler, 1966), both of which arouse wishes (Sandler & Sandler, 1978). Exploration of self and others beyond the mos begun between the mother and others, as well as between mother and self, the infant remains merged with the mother. Physiologically, motor abilities are developing; and while growing into a toddler, the relationship with the mother provides the infant with the safety needed to move away from the mother to explore the environment. Yet, repeated returns to the mother remain necessary for reassurance that needs will continue to be met (Mahler, 1966; Mahler, 1972).

As the child moves toward physical separation, the

mother becomes less able to immediately recognize and meet needs. Memory traces of past satisfaction provided by the mother now allow toleration of still longer delays in gratification. The child begins to alter behavior (self as stimulus) to elicit desired responses from the mother as the good object. The association between a desired response or wish and an anticipated gratifying response by the mother allows the child to develop an emotional investment in other people. The child's identity is being shaped by the mother's behavior which reflects her own conscious and unconscious needs.

As the child's horizons continue to broaden through greater locomotion, the mother continues to shape the child's emerging self (ego) by the level of confidence exhibited in the child's abilities (a reflection of her ability to tolerate this level of separation). Along with the development of object permanency (recognition that objects continue to exist when beyond the reach of one's five senses), the child develops permanent internal representations of the mother through subjective experience and objective events which allow toleration of longer and longer separations from the mother. At this stage, the child is unable to remain cognizant of polar opposite (good-bad) representation.

While continuing to individuate, the child resists

separation with an increasing need to return to the mother for reassurance. However, the once unitary dyad between the mother and child no longer exists. The mother's relationship with the child becomes more verbal and the child seeks more connection through language than through physical contact (Mahler, 1966; Mahler, 1972). The result is that the child experiences increased frustration which must be gratified by the self rather than by the mother. This frustration results in the recognition of the real self, objects, and relationships as separate from those which are fantasized (Winnicott, 1953). Here begins the lifelong challenge both to differentiate and to relate one's inner (subjective) and outer (objective) realities.

Object relations continue to develop throughout childhood and adolescence. The young child defines interactions by the gratification and personal pleasure they provide. Relationships gradually become reciprocal, and the individual is able to endure momentary conflicts. The young child obeys rules simply to avoid punishment and gain praise. Over time, critical evaluations of societal rules develop within the framework of internal representations, with those which have personal meaning being internalized. The child gradually moves away from a need-gratification orientation toward people. The mother and others in the environment (objects) are now seen as separate individuals

with separate needs and interests (Westen, 1991a). This is the birth of a lifelong struggle between fears of fusion and isolation encountered in varying degrees by all persons.

Throughout childhood and into adulthood, the individual develops ambivalence in order to tolerate ambiguity. Westen (1991) defines ambivalence as the awareness of conflicting feelings, ability to remember positive events while in a negative mood state and vice versa, recognition that a single object generates both positive and negative mood states, conscious awareness of positive object representation while negative affect is associated with object representation and vice versa, and recognition that the same object provides both satisfaction and frustration. Ambivalence is the tool necessary to reintegrate the good and bad part-objects into a whole object with whom a mature relationship can be initiated and maintained.

The individual continues to seek fulfillment of wishes through fantasy of self, objects, and relationships which serve to maintain internal homeostasis or to affirm internal representations. Urges to re-experience past object relationships (usually unconscious) occur when feelings of security or safety are threatened. Earlier, and no longer acceptable, wishes for both past real and fantasized gratification and object relationships are disguised with defenses. The individual chooses relationships with those

persons (objects) who respond similarly to the fantasized response of internalized objects of past real and fantasized relationships. In this way, the internal representations of self, objects, and relationships influence the individual's subjective experience of objective events. Individuals may develop traits which evoke from others the responses which have been fantasized (Sandler & Sandler, 1978). Thus, no phase is ever fully finished; any stage of object relations development can be reactivated at any time in the life cycle (Mahler, 1972).

Individuals develop, function, and relate to others from different levels in different components of object relations which include: "specific and generalized representations of self, others, and relationships; understanding of social causality (i.e., what causes people to act, think, and feel as they do); representations of broad social phenomena and processes; perspective taking; quality of emotional investment in self and others; regulation of intensity of emotional investment; self-observation; moral development; attributional style; empathy; interpersonal wishes, social affects, dominant interpersonal concerns, or core conflictual relationship themes; and affective quality of relationship paradigms or expectations (Westen, 1991a, p. 440)." Each component is interdependent with, but distinct from, the others; and

development in one area does not predict development in other areas. Further, object relations functioning refers not only to level of development but also to the pattern of high and low development in each of the components.

In summary, object relations refer to the lifelong development of interactions between the self and objects, both real and fantasized. Development is influenced by the individual's interpretation of events which is determined by the event itself, the individual's current developmental level, and the individual's past experiences. Thus, the same event can have different effects on different object relational structures at different levels of development. Further, since individuals re-enact past object relationships throughout life, future events will continue to affect these structures at various developmental levels.

Object Relations and Physical Abuse

While daily events contribute to the shaping of the infant, the child, and later, the adult personality, few events have greater potential for crippling the developing self than intentionally inflicted physical harm. Childhood physical abuse, which threatens even one's physical integrity, lays vulnerable all the components of object relations at both their current level of development and their current level of functioning. Deliberate infliction of physical trauma exposes and puts at risk even previously

mastered and inactive developmental levels. With the threat of physical abuse to the physical being, the infant or child may regress to lower psychic levels of functioning in an attempt to preserve the physical self, focusing simply on existence, and thereby suffer damage to lower levels of object relational structures.

Westen, et al. (1985) suggest a structure for organizing the components of object relations which allows concise, separate evaluation of these distinct (interrelated but not inter-predictive) domains in object relations. This structure permits evaluation of the effects of physical abuse in the object relations categories of Complexity of Representations of People (CR), Affect-Tone of Relationship Paradigms (AT), Capacity for Emotional Investment (CEI), and Understanding of Social Causality (USC) across five levels ranging from undeveloped (level 1) to mature (level 5). Further, Westen, et al. (1985) have developed a scale for measuring each of these components which is described below.

Complexity of Representations of People (CR). CR evaluates the individual's ability to differentiate between the self and others as well as the degree to which good and bad objects are integrated into whole objects. At the most mature level, people are viewed as separate from one's self and possessing both complex and conflicting attributes, not only in the present, but across time (Westen, 1991b; Westen,

et al. 1985).

A physically assaulted infant may remain only aware of pleasure and tension or pain, being unable to progress further in his/her development. The high incidence of brain damage and mental retardation (MR) found in abused infants (Brandwein, 1973; Johnson, 1990; Maden & Wrench, 1977; Merten & Carpenter, 1990) may account for stagnation at such a low level of functioning that the infant is unable to merge with the mother and participate in a unitary relationship. Because of the diffuse effects of organic brain dysfunction and its accepted association with MR, children obtaining a full scale IQ score below 70 will be excluded from the present study.

Once the infant functions as a cohesive unit with the mother, the struggle begins to differentiate from her (Winnicott, 1953; Winnicott, 1967). However, an individual cannot experience successful separation without first feeling safe from intrusion within the merger with the maternal object. The infliction of physical pain or injury permeates the most basic boundary between that which is internal and external to the self, the skin. Thus, the experience of abuse robs the individual of the freedom to vacillate his/her attention between inner and outer sensations (Schaffer & Schaffer, 19ding to the perception of boundaries between self and others is now inhibited.

Further, the individual remains dependent upon the object and helpless to impose boundaries which would provide protection from future assaults.

CR also reflects the adequacy of good and bad object integration. Gratification and frustration are initially perceived as separate objects with internal frustration being satisfied through external gratification (Mahler, 1966; Mahler, 1972). The external object's failure to provide satisfaction also becomes a source of frustration. When the external object causes deliberate physical harm to the child, or fails to protect the child from harm by others, the tension and subsequent negative affect placed on the object may be too great to bear (Fisher, 1991 as cited in Schaffer & Schaffer, 1994). Thus, the presence of the intensely frustrating object not only creates physical pain, but threatens the individual's psychic existence.

In order to protect the self, the child displaces the bad object onto the self and fantasizes the good object into the place of the external bad object (Fairbairn, 1943; Kohut, 1966 as cited in Westen, 1991a; Sandler & Sandler, 1978), lowering the child's sense of self-worth. The child has become a self-tormentor to obtain the illusion of physical safety (Shabad, 1993). Once the bad and good objects have been split along the dimensions of self (bad) and other (good), the potential for reintegration of good

and bad within both the self and others becomes tenuous. The individual's lack of ambivalence then results in a polarized view of the self and others which may fluctuate rapidly making long-term, mature relationships unmanageable.

Affect-Tone of Relationship Paradigms (AT). AT evaluates the positive and negative affect associated with internal representations of both objects and relationships. At the most mature level, people are generally viewed positively, and relationships are considered enriching (Westen, 1991b; Westen, et al., 1985). Through the mother's meeting or failure to meet the infant's needs, the infant associates affects with the maternal object, forming good and bad object representations. When the individual's needs are gratified and, in the course of development, manageable frustration is experienced, good and bad objects become integrated into whole objects. The objects and interactions with them can then be predominately viewed as positive (Mahler 1966; Mahler, 1972).

When a child is physically assaulted by the object, severe frustration (physical pain) rather than gratification comes to be expected. The fears and fantasies associated with the bad object through real experiences become overwhelming, leaving the individual at a loss to retrieve the good object in fantasy (Shabad, 1993). Rather than safe for exploration, the world (and the objects in it) is viewed

as threatening, hostile, painful, and overwhelming.

In the world of object representations, and remembering that the primary caretakers become represented as the first object (more than one person may contribute to the first good and bad object representations), the bad object may both inflict direct physical harm and fail to protect the individual from abuse administered by others. Failure to provide protection leaves one vulnerable to harm from those in the outside world which exists beyond the merged relationship with the primary object. The individual's fear and timidness in separation from the object is increased in the face of an unsafe and potentially threatening environment.

Capacity for Emotional Investment (CEI). CEI evaluates the value placed in others and in relationships, as well as tel, people are considered intrinsically valuable; and the individual is committed to meaningful relationships. Further, although rules and moral standards have been internalized, they are subject to critical evaluation and revision by the individual when one is confronted with information which conflicts with existing beliefs (Westen, 1991b; Westen, et al., 1985).

When an infant receives adequate care, memory traces of gratification provided by the object are developed (Mahler, 1966; Mahler, 1972). In the course of development,

toleration is built for increasingly longer periods of frustration (Winnicott, 1967). On the other hand, the abused individual's needs are met, rather than with satisfaction, with even greater frustration in the form of physical pain. Memory traces of pain and increased frustration are associated with the object and are anticipated in the future. The memory traces of satisfaction which enable the individual to tolerate ever longer delays in gratification are not formed. Since pain, not gratification, is anticipated, attention becomes fixed on internal sensations at the expense of external exploration.

Lacking gratification, the individual remains focused on this goal and is unable to explore the environment. Objects continue to be sought solely for gratification which is not forthcoming, leaving the individual self-absorbed in the search for satisfaction. Rules (which are imposed externally) serve as obstacles to the satisfaction of his/her needs and, thus, do not become internalized. Societal rules are either ignored or obeyed simply to avoid further punishment.

Understanding of Social Causality (USC). USC evaluates the degree to which the individual attributes intricate and complex causes to events and the actions of others. At the most mature level, multiple interactive factors are

recognized to influence behaviors and events. People and the relationships they have with one another are seen as impacting, not only broad events, but the evolution of the individuals and those relationships. Further, the influence of past events, the behaviors of others, one's thoughts (conscious and unconscious), and one's feelings (conscious and unconscious) are all recognized as motivators of individuals' behaviors (Westen, 1991b; Westen, et al., 1985).

The infant is initially aware of needs being met without recognizing that the object is providing his/her gratification (Winnicott, 1967). Once the object is recognized as providing satisfaction of needs, the infant develops an ever increasing awareness that behaviors evoke specific responses from the object (Mahler, 1966; Mahler, 1972). Assault often results from the very behaviors which the infant has available for eliciting gratification from the object (Tuohy, 1987); i.e., crying. Since the object's responses are random (sometimes gratifying and sometimes abusing), the individual is unable to learn that a particular stimulus is paired with a particular response. In the struggle to discover the behavior (or set of behaviors) which will consistently elicit the illusive gratification, the psychological factors impacting behavior remain undetected.

Although the physically abused individual may learn specific rules and restrictions, they are observed solely to avoid further punishment and assault. When the consequence foses the freedom to experiment with, internalize and evaluate societal rules and restrictions.

Influences of Internal and External Characteristics

Clearly, not everyone who experiences physical abuse develops all the possible impairments in object relations functioning. Individuals' past, current, and ongoing development and functioning differ as a function of characteristics of both the event (assault), the object (perpetrator), and the individual.

Event/Assault Characteristics. Assaults against children vary in intensity. Although slaps and spankings are considered by most adults to be acceptable forms of discipline (Gelles, 1978; Johnson, 1990; Straus & Gelles, 1986), behaviors which result in physical injury are abusive. Skin markings, the most common evidence of abuse, damage or permeate the skin and assault the most basic boundary between the self and others. These markings are evidenced by bruises, burns, welts, lacerations, abrasions, scratches, and/or scars (Council on Scientific Affairs, 1985; Johnson, 1990; Johnson & Showers, 1985; Kolko, 1992; Maden & Wrench, 1977). Internal injuries, such as bruised and ruptured organs and fractured bones, represent an even

deeper intrusion.

When injuries resulting from abuse require medical treatment, other people enter the child's life, even if only momentarily. Unfortunately, physicians seldom and inconsistently report suspected abuse (Johnson, 1990; Warner & Hanson, 1994). The child loses the chance of external protection and is returned to face further abuse with only inadequate internal resources available for protection.

Abuse can occur once or many times. It can be associated with observable events (such as the child's behavior), or it can be unpredictable. The less frequently and the more predictably the abuse occurs, the less the child is overwhelmed and the more the child is able to experience control over external and internal events. As frequency increases, the child has less opportunity to develop the good object representation, while decreased predictability provides fewer opportunities to develop stimulus-response associations.

Object/Perpetrator Characteristics. Ninety-two percent of the adults who assault children are family members (Chu & Dill, 1990). An overwhelming number of perpetrators are parents, followed by stepparents (Council on Scientific Affairs, 1985; Farber & Joseph, 1985; Hegar, Zuravin, & Orme, 1994; Johnson, 1990; Maden & Wrench, 1977). They are the individuals around whom the child's internal object

relations first develop and who, as perpetrators, place the child at greater risk for impaired object relations functioning as compared to strangers and other nonfamilial adults.

Further, abusers have been described as immature, impulsive, self-centered, hypersensitive, irritable, and quick to react with poorly controlled anger (Berger, Knutson, Mehm, & Perkins, 1988; Kempe et al., 1962), thus, rendering them wholly inadequate in the role of the consistently nurturing object needed by the developing infant and child. The greater the adult's self-absorption and immaturity, the less empathy is available for the development of the initial merged relationship and the less tolerance is exhibited for separation. The severity of the adult's assorted problems contributes to the degree with which the perpetrator responds with rejection and/or anger to the child's attempts to separate. Since most perpetrators are caregivers, the resultant rejection and/or anger limits the child's ability to master the tasks of differentiation and separation.

Child/Victim Characteristics. The age and the level of development (both achieved and current functioning) interact with the external variables of assault and perpetrator characteristics to impact object relations functioning. Infants and young children are more likely to sustain

injuries during abuse which require medical treatment (Rosenthall, 1988), thereby increasing the susceptibility of the younger child to impairments related to physical harm. When suspecting abuse, physicians are more likely to report assaults of younger children (Warner & Hansen, 1994). It is also easier to erroneously attribute injuries from abuse in older children to accidents resulting from clumsiness or over exuberant activities with other children. Thus, the older child is less likely to find external salvation when injuries are severe.

The younger or less developed child has fewer tools available for interpreting abuse. The more developed the child when abuse first occurs, the more the child is able to recognize the assault as externally inflicted and resulting from attributes of the perpetrator, not the self. Further, the positive experiences of the child who is older when first faced with abuse reduce the generalization of abusive experiences and the perception of the world as assaultive.

Physical Abuse, Object Relations, and Pathology. No single assault, perpetrator, or victim characteristic predicts the outcome of object relations development as all the characteristicst of a pattern of dysfunctional object relations specific to the individual's experience. Impaired object relations have been associated with a wide range of disorders and intra/interpersonal difficulties, as has been

abuse. Psychotic, borderline, and neurotic dysfunctions have all been interpreted as impairments in areas of object relations development. Exploration of the manner in which object relations development and impairment relate to specific diagnoses is beyond the scope of the present study.

The Thematic Apperception Test (TAT)

Projective assessment tools, such as the TAT, have been used to assign diagnoses and, more importantly, to evaluate the intra and interpersonal experiences of individuals. Before and during the course of assessment, the clinician develops hypotheses regarding the problem areas presented by the individual. These hypotheses guide the clinician in the selection of the instruments to administer to the subject for the development of the most pertinent evaluation of the individual. Similarly, TAT cards are selected for presentation in order to obtain the data most relevant to the individual's functioning.

Card Pull. Not all TAT cards are presented to all subjects, and it is the task of the clinician to select the cards which will elicit the most salient information. This selection is motivated by two opposing interpretations.

The first explanation suggests that the features of a stimulus pull for, or stimulate, a response which reflects a particular problem or characteristic (Henry, 1956; Murray, 1943; Smith, Feld, & Franz, 1992); i.e., a depressive

stimulus elicits a depressive response. Regardless of the degree to which the individual possesses a particular characteristic, the subject will respond in a manner more reflective of that characteristic when stimulated (or presented a stimulus which pulls for the characteristic) than when presented a benign stimulus. However, when the characteristic is pervasive for the individual, the response provided will be proportionately greater when presented with a stimulus reflecting that characteristic; i.e., although a depressed subject will provide a more depressive response than will be provided by a non-depressed subject regardless of the stimulus, the increase in depressiveness will be far greater when faced with a depressive stimulus. Based on this interpretation, the TAT cards which stimulate or pull for a particular problem or characteristic will be the most useful for the evaluation of that problem or characteristic.

The opposing explanation suggests that the features of a stimulus evokes defenses against a particular problem or characteristic (Atkinson, 1982; Fleming, 1982; McClellend, Koestner, & Weinberger, 1992); i.e., a depressive stimulus inhibits a depressive response. Regardless of the degree to which the individual possesses a particular characteristic, the subject will respond in a more defensive or inhibited manner when presented a stimulus suggestive of that characteristic than when presented a benign stimulus.

However, when the characteristic is pervasive for the individual, the defenses evoked will be proportionately greater when presented with a stimulus reflecting that characteristic; i.e., although a depressed subject will inhibit a depressive response regardless of the stimulus, the inhibition of depressiveness will be far greater when faced with a depressive stimulus. Based on this evaluation, the TAT cards which are the least suggestive of a particular problem or characteristic will be the most useful for the evaluation of that problem or characteristic.

The hypotheses in the present study will reflect these opposing interpretations.

Reliability. The TAT does not readily lend itself to the psychometric properties which are historically used to determine the reliability of test measures. Traditional reliability measures, such as split-half and test retest correlations, are appropriate for forced choice measures which provide subjects a limited response selection.

These instruments, which are usually self-report, are developed using factor analysis techniques which assume numerous (at least two) response samplings for a single behavioral, thought, or affective domain. This is a necessary assumption of split-half reliabilities which measure the degree to which halves of a test provide quantatively and qualitatively equal data. TAT cards, on

the other hand, are unique stimuli, each providing an opportunity for an open-ended response which is sensitive to the subject's internal and external environment. Previous cards, and the subject's response to them, contribute to a changing environment from one stimulus to the next (Atkinson, 1982; Karon, 1968; Lundy, 1985; Lundy, 1988; McClelland, 1980; Smith, 1992). It would therefore be unrealistic to expect high split-half correlation coefficients for the TAT.

Test retest reliabilites are also complicated by the subject's continuously changing environment. Once an individual has provided an open-ended response to a stimulus and consequent internal changes have occurred, the same stimuli are experienced differently if presented a second time (Karon, 1968; Murstein, 1965; Smith, 1992). Further, without a limited response selection, the possible future response choices are endless. The instructions provided to subjects before responding to the TAT provide limited structure. Individuals may impose their own assumptions onto the task; i.e., the second story should be the same or different. However, investigators have found that, when subjects are instructed to respond on a second administration of the TAT without relying on or being influenced by their previous responses, test retest reliabilities increased substantially (Lundy, 1985;

McClelland, 1980).

Interrater reliabilities will, obviously, be higher for instruments which are conducive to template or computer scoring. These coefficients will vary as a function of the scoring systems used to interpret projective measures such as the TAT. Projective instruments lend themselves to a variety of interpretive methods, not all of which are equal in the reliability with which they may be scored. Example responses provided in a scoring manual, such as the scoring system utilized in the present study, greatly increase interrater reliabilities.

The Social Cognition and Object Relations Scales (SCORS)

The Social Cognition and Object Relations Scales (SCORS), developed by Westen, et al. (1985), are inferred from object relations theories which propose a developmental model of psychological development beginning in infancy.

The SCORS Scales Described. The first of the SCORS scales, Complexity of Representations of People (CR), measures the degree to which one differentiates between the self and others and attributes stable and complex characteristics to them. The lowest scores are obtained when subjects have difficulty differentiating their perspective from that of other individuals. As scores increase, representations of people become more clearly differentiated until at the highest levels individuals are

perceived both as separate and as having complex motives and different subjective experiences (Westen, 1991b; Westen et al., 1985).

The second scale, Affect-Tone of Relationship Paradigms (AT), measures an affective element of object relations. This scale measures a range from malevolent (negative) to benevolent (positive) representations. This scale further measures the positive to negative quality of interpersonal relationships. Relationships may be seen as painful and threatening, or as pleasurable and enriching. Scores range from one to five based on malevolent to more benign representations of people. Low to high scores further represent overwhelmingly painful to enriching relationships (Westen, 1991b; Westen et al., 1985).

The third scale, Capacity for Emotional Investment in Relationships (CEI), is a measure of the value placed in others and relationships with others. Lower scores on this scale are obtained when objects or individuals are seen in terms of only their ability to provide gratification of the individual's needs. Scores increase as moral standards become more developed. Others are viewed with respect and/or valued for themselves rather than strictly their ability to gratify the individual's needs. The highest scoring levels represent relationships experienced with others as meaningful and the individual expresses commitment

to these relationships in a mature way (Westen, 1991b; Westen et al., 1985).

The final scale, Understanding of Social Causality (USC), considers the individual's expectations in interpersonal relationships. Low scores represent stimulus-response attributions. As scores increase, an affective component is incorporated. When an individual has been depicted as having positive characteristics, their actions will be attributed to positive motivations; or when an individual is viewed negatively, their actions are attributed to negative motivations. At the highest scoring level, individuals are viewed as complex, possessing positive and negative motivations concurrently. Actions and motivations are attributed to complex factors, both internal and external to the individual (Westen, 1991b; Westen et al., 1985).

See Table 1 for a summary of each of the SCORS scales and scoring criteria for each level of the scales.

Overlap Between the SCORS Scales. Research maintains that three of the scales, CR, CEI, and USC, show an increase developmentally through adolescence (Westen, 1991a). AT is not a developmental scale; rather, it measures polar opposite views of the world and others, i.e., negative to positive. CR and USC have been found to correlate highly with each other and moderately with CEI (Westen, 1991a).

These correlations are the result of their shared developmental component and not a shared cognitive factor as has been previously suggested.

Instead, CR and CEI appear to reflect internal cognitive representations of the self and others which have been influenced by excessive frustration. Low CR scores result from inadequate separation of internal representations of self and others following extreme frustration, and low CEI scores result from a poor tolerance in delays of gratification following extreme frustration. Lower scores on both CR and CEI reflect attempts by the individual to compensate for overwhelming frustration.

USC, on the other hand, appears to reflect the quality of interaction between the self and others (reflected to a lesser degree by CEI). Low USC scores result from a failure to develop stimulus-response associations and, later, a more complex understanding of behavior. Although this failure also follows extreme frustration, it does not reflect an attempt to compensate for frustration.

AT, the only scale which does not reflect development, appears to reflect the affect attached to representations and interactions. Low AT scores result from overwhelming frustration without attempts to compensate.

Reliability. Reported interrater reliabilities on the four scales of the SCORS have ranged from .80 to .95.

Internal consistencies, as determined by Cronbach's alpha, have ranged from .65 to .85 (Westen, 1991a). Based on these coefficients, the SCORS is an adequate instrument for use in both research and clinical practice.

Validity. The SCORS's scales have been validated in numerous ways, and a review of these studies can be found in Westen (1990). A few of these studies will be mentioned here. Each of the SCORS's scales have been found to correlate with other predicted personality measures. Ratings for each of the scales have also been correlated with clinician and self-reports of social adjustment. The pattern of obtained SCORS ratings (high to low on specified scales) have successfully predicted normal criterion groups, e.g., college students pursuing different majors (Westen, 1991a) by inferring characteristics of the groups which are related to two or more of the scales.

Predicted score patterns have also been used to differentiate clinical and nonclinical groups. Adolescent borderline subjects obtain significantly lower AT and CEI scores compared to other psychiatric and normal control samples (Westen, Ludolph, Lerner, Ruffins, & Wiss, 1990). Both adult borderline and depressed subjects obtain significantly lower CR and USC scores compared to normal control subjects. These same borderline subjects obtain lower AT and CEI scores than do both the depressed and

normal control subjects (Westen, Lohr, Silk, Gold, & Kerber, 1990). The SCORS has also been used to differentiate abuse groups from nonabuse groups.

The SCORS and Physical Abuse. Freedenfeld (1994) hypothesized that mean scores and percentage of level 1 scores on the four SCORS scales would be significantly different in a physical abuse group as compared to a nonabused clinical group. Data were obtained as part of an archival study. All subjects, ages 6 to 16, were evaluated at an out-patient clinic. Physical abuse was confirmed in abused subjects following referral for evaluation and/or treatment. Nonabuse subjects were referred for various behavioral and emotional problems. Freedenfeld (1994) found that mean scores were significantly lower and that there were a significantly greater number of level one scores obtained by the abused group on three of the four SCORS scales. Specifically the differences were significant in the predicted direction for AT, CEI and USC. No significant differences were found for CR between the two groups. The data used by Freedenfeld (1994) will be utilized for more comprehensive analyses in the present study.

Hypotheses

The purpose of the present study is to show that the principles of TAT card pull are applicable to object relations theory, and that the effects of card pull on

object relations scores are greater in subjects with more severely impaired object relational functioning. Two major principles guide the following hypotheses.

First, it is hypothesized that characteristics of TAT cards which reflect the constructs evaluated by each of the four SCORS's scales either pull for or inhibit responses which result in lower object relations scores. Secondly, it is further hypothesized that physically abused subjects obtain significantly lower scores than those obtained by clinical control subjects on each of the four SCORS scales as a function of the card stimulus, either pulling for or inhibiting lower scores. Two opposing schools of investigators provide rationales for selecting TAT cards for administration to obtain the best group prediction. The hypotheses in the present study reflect both of these opposing viewpoints.

One group of researchers suggest that the TAT is a better predictor when the cards selected are specifically related to a particular problem area (Henry, 1956; Murray, 1943; Smith et al., 1992); i.e., cards pull for related story content. Therefore, it is hypothesized that the lower scores obtained by the physically abused subjects on the four SCORS scales compared to the scores obtained by the control subjects will be significantly greater on TAT cards which pull for lower scores.

Other researchers take the opposite position, suggesting that those cards which are the most benign are preferred (Atkinson, 1982; Fleming, 1982; McClelland, Koestner et al., 1992). The story content provided will be that which is most relevant to the individual's unconscious processes, i.e., cards related to a problem area will be defended against and scores will be more reflective of difficulties when the stimulus is benign. Therefore, it is hypothesized that the lower scores obtained by the physically abused subjects on the four SCORS scales compared to the scores obtained by the control subjects will be significantly greater on TAT cards which are more benign or pull for higher scores.

Two of the scales, CR and CEI, appear to be more strongly associated with the cognitive processes of object relations. In other words, they tend to be more reflective of internal cognitive representations of self and others than are the other two scales. Cards showing more than one individual lend themselves to stories in which persons are viewed as separate, complex, and possessing innate value.

Hypothesis 1. It is hypothesized that the scores on CR and CEI will differ significantly as a function of the number of persons present on the card (one [1, 3BM, 17BM] vs. more [2, 18GF]).

Hypothesis 1a (Pull). The difference between both the

mean CR scores and the mean CEI scores obtained by subjects in the physically abused group and the mean CR scores and the mean CEI scores obtained by subjects in the control group on cards with one person represented (1, 3BM, and 17BM) will be significantly greater than the comparable differences on cards with two or more persons represented (2 and 18GF).

Hypothesis 1b (Inhibit). The difference between both the mean CR scores and the mean CEI scores obtained by subjects in the physically abused group and the mean CR scores and the mean CEI scores obtained by subjects in the control group on cards with two or more persons represented (2 and 18GF) will be significantly greater than the comparable differences on cards with one person represented (1, 3BM, and 17BM).

The AT scale of the SCORS appears to be more strongly associated with the affective processes of object relations. In other words, this scale appears to be more reflective of the affect attached to internal representations of self and others than are the other scales.

Hypothesis 2. It is hypothesized that the scores on AT will differ significantly as a function of the affect reflected on the card (threatening, hostile, painful, or overwhelming scenes [1, 3BM, 18GF] vs. benign scenes [2, 17BM]).

Hypothesis 2a (Pull). The difference between the mean AT scores obtained by subjects in the physically abused group and the mean AT scores obtained by subjects in the control group on cards depicting threatening or depressive scenes (1, 3BM, and 18GF) will be significantly greater than the comparable differences on cards depicting benign scenes (2 and 17BM).

Hypothesis 2b (Inhibit). The difference between the mean AT scores obtained by subjects in the physically abused group and the mean AT scores obtained by subjects in the control group on cards depicting benign scenes (2 and 17BM) will be significantly greater than the comparable differences on cards depicting threatening or depressive scenes (1, 3BM, and 18GF).

The USC scale of the SCORS appears to be more strongly associated with the interpersonal or interactive processes of object relations. In other words, it is more reflective of the attributions made to actions than are the other scales.

Hypothesis 3. It is hypothesized that the scores on USC will differ significantly as a function of behaviors reflected on the card (active [2, 17BM, and 18GF] vs. passive [1, 3BM]).

Hypothesis 3a (Pull). The difference between the mean USC scores obtained by subjects in the physically abused

group and the mean USC scores obtained by subjects in the control group on cards with passive behavioral representations (1 and 3BM) will be significantly greater than the comparable differences on cards with active behavioral representations (2, 17BM, and 18GF).

Hypothesis 3b (Inhibit). The difference between the mean USC scores obtained by subjects in the physically abused group and the mean USC scores obtained by subjects in the control group on cards with active behavioral representations (2, 17BM, and 18GF) will be significantly greater than the comparable differences on cards with passive behavioral representations (1 and 3BM).

CHAPTER II

METHOD

Subjects

Subjects for this proposed archival study are 39 physically abused children and 39 children with no reported history of abuse (physical, sexual, and/or neglect) ranging in age from six to sixteen years. Subjects were evaluated at the Dallas Child Guidance Clinic (DCGC), an out-patient clinic specializing in the evaluation and treatment of children and families in Dallas, Texas. Subjects were previously matched for gender (males, $\underline{n}$ = 24; females, $\underline{n}$ = 15) (Freedenfeld, 1994). Subjects evidencing chronic psychosis, gross neuropathology, or IQ below 70 were excluded due to the diffuse cognitive impairment associated with these abnormalities (Ammerman et al., 1986; Friedrich et al., 1983; Green, 1988; Kolko, 1992). Further, subjects for whom a history of abuse could not be reliably determined were excluded to reduce the ambiguity regarding group membership.

Many previous studies (Caliso & Milner, 1994; Elmer & Gregg, 1967; Hoffman-Plotkin & Twentyman, 1984; Jacobson & Straker, 1982; Johnson, 1990; Kaufman & Cicchetti, 1989;

Kempe et al., 1962; Perez & Widom, 1994; Reidy, 1977) have used a variety of physical injuries to define abuse. Their results may be associated with injury type or severity rather than with victimization resulting in injury. In this study, physical abuse was defined as an act in which an adult caregiver injures a child in anger or deliberately, not by accident (Gil & Noble, 1979). Abuse status for this study was determined from social and family histories, assessment reports, treatment notes, and DHS findings in each subject's case file. Variance attributable to age at onset of abuse; frequency and duration of abuse; time since last abuse incident; injury severity (e.g., need for hospitalization) and injury type (unless resulting in neurological deficit); family characteristics (e.g., caretaker, number of siblings, and presence of other violence in the home); perpetrator characteristics (e.g., age, gender, and relation to victim); and the number of perpetrators was not controlled.

Physical Abuse Group. Subjects in the abuse group ranged in age from 6 years, 6 months to 16 years, 3 months ($\bar{x}$ = 12 years, 0 months). Twenty-five of the victims were Caucasian, 6 African-American, 6 Hispanic, and 2 other. Thirty-six cases of abuse were reported as ongoing (occurring more than once) and 3 were reported as single incidents. Subjects had documented reports of bruising (n =

13), burns (n = 4), lacerations (n = 5), and/or receipt of medical attention (n = 3) as a result of abuse. Twenty-four victims were removed from the home and 15 remained in the home following the report of abuse. Physical abuse was confirmed in abused subjects following referral for evaluation and/or treatment by the state's Department of Human Services (DHS) or the child's school.

The majority of perpetrators were a biological parent (n = 26) or stepparent (n = 7). There were 19 documented male perpetrators and 13 female perpetrators. The remaining 7 cases consisted of both male and female perpetrators. A majority (n = 32) of the abusive families were not intact at the time of abuse.

Clinical Control Group. Subjects in the clinical control group ranged in age from 6 years, 1 month to 16 years, 7 months ($\bar{x}$ = 12 years, 2 months). Twenty-one control subjects were Caucasian, 9 African-American, and 9 Hispanic. Control subjects were referred for various behavioral and emotional problems: depression, n = 30; hyperactivity, n = 7; conduct problems, n = 13; learning disabilities, n = 6; and school problems, n = 19. Control subjects were referred for evaluation and/or treatment of various behavioral and emotional problems and have no documented or suspected history of abuse.

Test Measures

TAT records used in this study were obtained from DHS files as a part of a larger archival study. TATs were administered to subjects at DCGC by clinical staff (minimum training completed master's degree in psychology with formal course work in psychological testing) as part of comprehensive assessments shortly following subject referrals to that agency. Testing was supervised by a licensed clinical psychologist. Administrator characteristics (years experience, age, and gender) were not controlled. Administrators selected cards and order of presentation. Consequently, subjects were presented a variety of TAT cards in an uncontrolled order.

The TAT cards chosen for study are a subset of Bellak's (1986) recommended standard set and were represented in each subject's protocol. Object relations was assessed on the four dimensions of complexity of representations of people (CR), affect-tone of relationship paradigms (AT), capacity for emotional investment in relationships and moral standards (CEI), and understanding of social causality (USC) using a scoring system developed by Westen et al. (1985). Scores for individual SCORS scales were assessed from subjects' responses to 5 TAT cards: 1, 2, 3BM, 17BM, and 18GF along a 5 point Likert-scale with level 1 considered primitive and level 5 mature. Card descriptions (Murray, 1943) may be found in Table 2. These cards were chosen

based on their 100% representation in subjects' protocols and their latent stimulus content associated with social relationships and aggression. See Table 3 for descriptions of cards' expected latent stimulus content (Henry, 1956). Records not containing stories to the five above TAT cards were excluded from the study.

Procedure

Names have been removed from all data to insure confidentiality. Subject age has been defined as age at the time of assessment and obtained from DHS case files. IQ was determined by subjects' photocopied WISC-R protocols.

TAT records were photocopied, transcribed, and divided into individual stories on separate pages. Stories were rated by two doctoral students in clinical psychology, who have trained extensively using detailed scoring manuals. Stories were randomized across all subjects so that rating multiple stories in the same protocol would be independent. Raters were kept unaware of the abuse status of each subject. The interrater reliabilities previously reported for each of the SCORS ratings (Freedenfeld, 1994) were: CR, r = .92; AT, r = .94; CEI, r = .91; and USC, r = .91.

CHAPTER III

RESULTS

Descriptive Analyses

Correlation matrices revealed significant correlations between the subject characteristics of race VIQ, PIQ and FSIQ. While Caucasians obtained higher scores on the Weschler scales, this finding may be accounted for by socioeconomic status. However, SES data was unavailable in many case files and could not be evaluated. As would be expected, significant correlations were also found between the Weschler scales of VIQ, PIQ, and FSIQ (see Table 4).

Abuse status was not found to be significantly associated with subject characteristics, consistent with Freedenfeld's (1994) report. In other words, groups did not differ on the variables of family condition, family structure (whether or not intact, i.e., both biological parents living in the child's home), subjects' race, gender, age, VIQ, PIQ, FSIQ, or TAT story word count.

Mean scale scores were computed for CR, AT, CEI, and USC by averaging the scores of the two raters across each of the five TAT cards for each scale. An overall Object Relations mean score was computed by averaging the scores of

the two raters across each of the cards across all four subscales.

CR, AT, CEI, USC, and Object Relations were not significantly correlated with family condition, family structure, VIQ, PIQ, or FSIQ (coefficients are presented in Tables 5 and 6). Significant correlations were observed between the subject descriptive characteristics of race and USC (Caucasians obtained higher scores), gender and CR, gender and USC, and gender and Object Relations (females obtained higher scores). Consistent with Freedenfeld's (1994) report and with object relations theory, all scales were significantly correlated with subject age (older subjects obtained higher scores) (see Table 6) and, thus, age was used as a covariate in hypothesis testing. Although Freedenfeld reported that AT was the only scale not associated with word count (use of more words resulted in higher scores), the present analysis found the relation between USC and word count only approached significance (p = .092), accounting for 3.694% of the variance. Therefore, word count will be used as a covariate in further analyses related to CR and CEI only.

A correlation matrix was computed for CR, AT, CEI, USC, and Object Relations. Correlations between the four subscales ranged from .09 to .49, and the correlations

between these scales and Object Relations ranged from .55 to .78 (see Table 7). Consistent with previous reports (Westen, 1991a), the lowest correlations were between AT and the other subscales while the intercorrelations between CR, CEI, and USC were similar.

Physical Abuse Group. A correlation matrix between victim characteristics and CR, AT, CEI, and USC revealed no significant associations. In other words, in abused subjects, the dependent variables were not related to frequency of abuse (isolated event or ongoing), perpetrator gender, perpetrator role (whether or not a parental figure), relationship of perpetrator to the victim, disposition of the perpetrator (result of reported abuse), or disposition of the victim (in or out of the home following reported abuse).

Tests of Hypotheses

A Multivariate Analysis of Covariance (MANCOVA) and two Analyses of Covariance (ANCOVA) were conducted to test the hypotheses.

Each primary hypothesis tests for the main effects of card characteristics on object relations scores because the clinician's selection of cards for presentation is guided by explanations which suggest that card stimuli either elicit (pull) or inhibit particular responses. Object relations theory and the definitions of the four constructs which the

SCORS scales are intended to measure guided the selection of card characteristics for examination.

Hypotheses -a and -b test the opposing interpretations of card pull (-a) and card inhibition (-b) in addition to the interaction effects of group membership (physical abused vs. clinical control) on object relations scores and are mutually exclusive. Since past research (Freedenfeld, 1994) and object relations theory suggest that physically abused individuals obtain scores reflecting lower object relations functioning, these hypotheses examine which cards (across four scales) best differentiate between physical abused and clinical control groups.

Hypotheses 1, 1a, and 1b were tested by a two-way, within subjects MANCOVA. The between subjects independent variable was group membership; i.e., physically abused and clinical control. The within subjects independent variable was card pull; i.e., scores vary as a function of the number of persons present on the card (one [1, 3BM, 17BM] vs. more [2, 18GF]). The dependent variables were the SCORS scales of CR and CEI. Mean word count and subject age were covariates.

Hypothesis 1. It is hypothesized that the scores on each of these scales (CR and CEI) will differ significantly as a function of the number of persons present on the card (one [1, 3BM, 17BM] vs. more [2, 18GF]).

Hypothesis 1 was supported by a significant main effect for card pull as a function of the number of persons represented on the card (F = 17.82, p > .001). The effects for card pull were also observed when CR (F = 36.93, p > .001) and CEI (F = 49.41, p > .001) were examined separately (see Table 8 and Figures 1 and 2) with CR providing support for an inhibition interpretation and CEI supplying support for a pull explanation. Subjects obtained significantly lower CR scores on cards with two or more persons represented than on cards with one person represented. In contrast, subjects obtained lower CEI scores on cards with one person represented than on cards with two or more persons represented.

Hypothesis 1a (Pull). The difference between both the mean CR scores and the mean CEI scores obtained by subjects in the physically abused group and the mean CR scores and the mean CEI scores obtained by subjects in the control group on cards with one person represented (1, 3BM, and 17BM) will be significantly greater than the comparable differences on cards with two or more persons represented (2 and 18GF).

Partial support was found for Hypothesis 1a. The interaction effect between group and card pull failed to reach significance (F = .38, p = .539). When CR and CEI were examined separately, interaction effects for CEI still

failed to reach significance (F = 1.84, p = .179). However, the interaction effect between group and card pull for CR was significant (F = 10.42, p = .002) where the between group difference was greater on cards with one person represented than on cards with two or more persons represented (see Table 8 and Figures 1 and 2).

Hypothesis 1b (Inhibit). The difference between both the mean CR scores and the mean CEI scores obtained by subjects in the physically abused group and the mean CR scores and the mean CEI scores obtained by subjects in the control group on cards with two or more persons represented (2 and 18GF) will be significantly greater than the comparable differences on cards with one person represented (1, 3BM, and 17BM).

Hypothesis 1b was not supported. The interaction effect between group and card pull failed to reach significance (F = .38, p = .539). When CR and CEI were examined separately, interaction effects for CEI, again, failed to reach significance (F = 1.84, p = .179). Although the interaction effect for CR was significant (F = 10.42, p = .002), this effect was opposite the one predicted (supported Hypothesis 1a).

Hypotheses 2, 2a, and 2b were tested by a two-way, within subjects ANCOVA. The between subjects independent variable was group membership; i.e., physically abused and

clinical control. The within subjects independent variable was card pull; i.e., scores vary as a function of the affect reflected on the card (threatening or depressing scenes [1, 3BM, 18GF] vs. benign scenes [2, 17BM]). The dependent variable was the SCORS scale of AT. Subject age was a covariate.

Hypothesis 2. It is hypothesized that the scores on AT will differ significantly as a function of the affect reflected on the card (threatening, hostile, painful, or overwhelming scenes [1, 3BM, 18GF] vs. benign scenes [2, 17BM]).

Hypothesis 2 was supported by a significant main effect for card pull as a function of the affect reflected on the card ($F = 48.94$, $p > .001$) (see Table 9 and Figure 3), providing support for a pull interpretation. Subjects obtained significantly lower AT scores on cards depicting threatening or depressive scenes than on cards depicting benign scenes.

Hypothesis 2a (Pull). The difference between the mean AT scores obtained by subjects in the physically abused group and the mean AT scores obtained by subjects in the control group on cards depicting threatening or depressive scenes (1, 3BM, and 18GF) will be significantly greater than the comparable differences on cards depicting benign scenes (2 and 17BM).

Hypothesis 2a was not supported. The interaction effect between group and card pull failed to reach significance (F = 1.44, p = .235).

Hypothesis 2b (Inhibit). The difference between the mean AT scores obtained by subjects in the physically abused group and the mean AT scores obtained by subjects in the control group on cards depicting benign scenes (2 and 17BM) will be significantly greater than the comparable differences on cards depicting threatening or depressive scenes (1, 3BM, and 18GF).

Hypothesis 2b was not supported. The interaction effect between group and card pull failed to reach significance (F = 1.44, p = .235).

Hypotheses 3, 3a, and 3b were tested by a two-way, within subjects ANCOVA. The between subjects independent variable was group membership; i.e., physically abused and clinical control. The within subjects independent variable was card pull; i.e., scores vary as a function of behaviors reflected on the card (active [2, 17BM, and 18GF] vs. passive [1, 3BM]). The dependent variable was the SCORS scale of USC. Subject age was a covariate.

Hypothesis 3. It is hypothesized that the scores on USC will differ significantly as a function of behaviors reflected on the card (active [2, 17BM, 18GF] vs. passive [1, 3BM]).

Hypothesis 3 was supported by a significant main effect for card pull as a function of behaviors reflected on the card (F = 7.52, p = .008) (see Table 10 and Figure 4), providing support for an inhibition interpretation. Subjects obtained significantly lower USC scores on cards with active behavioral representations than on cards with passive behavioral representations.

Hypothesis 3a (Pull). The difference between the mean USC scores obtained by subjects in the physically abused group and the mean USC scores obtained by subjects in the control group on cards with passive behavioral representations (1 and 3BM) will be significantly greater than the comparable differences on cards with active behavioral representations (2, 17BM, and 18GF).

Hypothesis 3a was not supported. The interaction effect between group and card pull failed to reach significance (F = 2.64, p = .108).

Hypothesis 3b (Inhibit). The difference between the mean USC scores obtained by subjects in the physically abused group and the mean USC scores obtained by subjects in the control group on cards with active behavioral representations (2, 17BM, and 18GF) will be significantly greater than the comparable differences on cards with passive behavioral representations (1 and 3BM).

Hypothesis 3b was not supported. The interaction

effect between group and card pull failed to reach significance (F = 2.64, p = .108).

Freedenfeld (1994) previously found significant main effect group differences for total mean CEI, AT, and USC scores, while group differences for total mean CR scores were not significant. Although not the focus of this study, these findings were replicated in the present analyses with one exception. In the current design, CR and CEI were observed to have a significant joint group main effect (F = 5.67, p = .02). Since CR and CEI group differences were not analyzed separately in this study, this finding is considered a function of CEI scores and not in conflict with previous findings.

Exploratory Analyses

Although main effects for card pull were found for each dependent variable, support was found for an "inhibit" interpretation in the case of CR and USC, while evidence was found for a "pull" explanation in the case of AT and CEI. Since race was significantly correlated with USC only, a two-way, within subjects ANCOVA was computed in which the between subjects independent variables were group membership and race. The within subjects independent variable was card pull. The dependent variable was the SCORS scale of USC. Subject age was a covariate. A significant main effect was found for race (F = 8.40, p = .005) with Caucasians

obtaining higher USC ratings in both active ($\bar{x}$ s = 1.94 and 1.82) and passive ($\bar{x}$ s = 2.06 and 1.94) behavioral representations, but interaction effects remained insignificant.

Further, since gender was significantly correlated with USC and CR, two-way, within subjects ANCOVAs were computed in which the between subjects independent variables were group membership and gender. The within subjects independent variable was card pull. The dependent variable was the SCORS scale of USC in the first analysis and CR in the second. Subject age was a covariate. A significant USC main effect was found for gender (F = 13.19, p = .001) with females obtaining higher USC ratings ($\bar{x}$ s = 2.92 and 2.66), but interaction effects remained insignificant. No significant CR effects were found for gender.

CHAPTER IV

DISCUSSION

The present study has demonstrated that the features of TAT cards selected for presentation influences the evaluation of object relations functioning. Stimuli that is suggestive of cognitively regulated object relations structures appear to inhibit higher functioning. On the other hand, stimuli which reflects positive (or benign) affects seems to pull for more positive (higher functioning) affectively modulated object relations structures. Further, the present study has demonstrated that in physically abused children and adolescents, the component of CR is significantly influenced by the selection of cards for evaluation. The results have implications which can guide the clinician in card selection, protocol interpretation, and future research.

First, significant results were found for each of the three main effect hypotheses; i.e., the evaluation of object relations functioning differed significantly as a function of specific TAT card features which had been hypothesized to either pull for or inhibit responses to obtain lower level ratings on the SCORS scales. However, among the four

scales, support was found for both pull and inhibition interpretations. It is possible that the same external stimulus may pull for low level responses in one area of object relations functioning while inhibiting low level responses in a second area. Further, within the complicated theory of object relations, both stimulus pull and inhibition interpretations can be posed for responses obtaining equal or similar SCORS ratings in response to similar stimulus (card) features.

Secondly, while physically abused children and adolescents obtained lower ratings than those obtained by clinical controls in three components of object relations (AT, CEI, and USC), regardless of the cards utilized, a significant interaction effect was found for CR. This finding may account for Freedenfeld's (1994) failure to find between group differences for CR. Subjects in both groups are less likely to obtain the lowest level rating on CR (Freedenfeld, 1994) than on any other scale. Thus, this finding may be an artifact resulting from the design of this scale; i.e., physically abused subjects actually respond similarly to clinical controls. It is also possible that the impact of an abuse history on CR is such that these individuals are better able to rally their resources when faced with challenging stimuli and, thus, respond much like controls. Conversely, physical abuse may have little impact

on CR functioning except when the individual faces troubling stimuli.

An in depth examination of the results found for each of the SCORS scales is presented below. First, the scales which appear to support an inhibition explanation (CR and USC) will be considered followed by an appraisal of the scales which appear to advance a pull interpretation (CEI and AT). Then a more concise examination of the interaction effects for CR will be presented.

Stimulus Inhibition Interpretation and TAT Card Selection

An inhibitory explanation of TAT card selection suggests that evaluation of a characteristic or area of object relations functioning will be most effective when utilizing cards which are not suggestive of that characteristic or area. Specifically related to the SCORS, this means that cards which provide more cues for responses reflecting higher functioning will actually elicit responses indicating lower functioning. In contrast, the presentation of cards possessing fewer cues will result in responses suggesting higher functioning. Support was found for this interpretation in the object relations areas of CR and USC.

Complexity of Representations of People (CR). As a measure of the differentiation between the self and others, while attributing stable and complex characteristics to self and others, CR reflects the individual's internal cognitive

representations of self and others. TAT cards showing more than one person provide cues for responses reflecting the separateness of individuals and their personal characteristics, both of which are lacking in cards showing a single person. Subjects in the present study obtained significantly higher CR ratings on cards showing one person than on cards showing more than one person.

Since a card showing one person requires the introduction of others, which is not provided by the stimulus, in order to obtain higher level scores, the individual's defenses against inadequate differentiation and the associated fears of alienation, engulfment, and desertion, which result from a failure to separate internal representations of self and others, appear to be activated; and the anticipated lower level response may be inhibited. In order to defend against and contain these negative affects, the individual ferentiation. However, when a card reflects external representations of more than one person, the individual's defenses do not seem to be activated against internal representations. Instead, the individual is freed to respond in a manner reflective of actual internal representation, and, therefore, provide higher level responses.

On the other hand, the lower scores obtained by the individual when presented cards showing more than one person

may reflect a wished for merger with others following premature separation. In this case, additional persons serve as a cue for the desired merger. However, the higher level responses to single person cards require more energy (fantasy of another person) than can be justified by the mere absence of cues for a latent (unconscious) wish. In other words, the individual's generation of a fantasized separation from others not depicted on a card (resulting in higher level responses to single person cards) seems to negate the idea that the stimulus of other persons on a card serves as a cue for a latent wish.

It is also possible that the CR rating of the responses given to cards showing one versus multiple persons is actually an evaluation of two separate constructs. Perhaps responses to cards with one person reflect actual internal representations of differentiation (or merger opportunities), the structure of which must be imposed by the individual. Responses to cards showing more than one person may evaluate the individual's ability to adhere to the reality of the stimulus and be more descriptive than projective. Analysis of the content of stories to determine the degree to which individuals describe card features could provide insight into this hypothesis.

Understanding of Social Causality (USC). As a measure of one's ability to attribute intricate and complex causes

to events and behaviors, USC reflects the individual's expectations in interpersonal relationships. TAT cards depicting active behaviors provide cues for responses reflecting a wider variety of possible antecedents of outcomes which are lacking in cards depicting passive behaviors. (For example: If a student passively stares throughout an exam [not responding to questions], the only possible outcome is a failing grade. If a student actively engages in taking an exam, many outcomes are possible.) Subjects in the present study obtained significantly lower USC ratings on cards depicting active behaviors than on cards depicting passive behaviors.

The presentation of a card depicting active behavioral cues appears to activate the individual's defenses against learned helplessness and its associated frustration, which may result from past experiences where behaviors failed to have a consistent impact on outcomes; thus, inhibiting the anticipated higher level response. It is also possible that active behavioral cues create a stimulus overload, resulting in an inability (or helplessness) to generate possible antecedents to outcomes. However, when a card depicts passive scenes, rather than defending against and containing frustration, the individual's responses may reflect a fantasized ability to impact or change outcomes. It is uncertain whether the individual provides higher level

responses because of freedom from fears and frustration or merely out of boredom.

It is also possible that, like CR, the USC ratings of the responses given to cards showing active versus passive scenes is actually an evaluation of two separate constructs. Perhaps responses to cards depicting active behaviors reflect the individual's anticipated impact on the environment or control of the environment based on past experience. Responses to cards depicting passive behaviors may evaluate the individual's fantasized (wished for) impact on the environment. Comparison of the content of stories and individuals' personal histories could provide insight into this hypothesis.

Further, these findings could be an artifact of the cards selected for evaluation, thereby suggesting that a card pull interpretation based on the quantity of stimuli presented rather than the amount of active stimuli depicted cannot be ruled out. Of the cards used in the present study, only one (classified as active) notably contained more visual cues than provided by the other cards. When more environmental cues are provided, the individual still may be able to generate more antecedents which become more complex. Rather than defending against a negative affect, the individual's responses could reflect the limits of past and present experiences and opportunities to observe a

variety of causalities. Thus, as the number of environmental and behavioral cues (and experiences) increases, the pool of potential causes would also increase resulting in responses which receive higher level ratings. Evaluation of cards containing multiple versus few visual cues could provide insight into this hypothesis.

Stimulus Pull Interpretation and TAT Card Selection

A pull explanation of TAT card selection suggests that evaluation of a characteristic or area of object relations functioning will be most effective when utilizing cards which are suggestive of that characteristic or area. Specifically related to the SCORS, this means that cards which provide fewer cues for responses reflecting higher functioning actually will elicit responses indicating lower functioning. In contrast, the presentation of cards possessing more cues will result in responses suggesting higher functioning. Support was found for this interpretation in the object relations areas of CEI and AT.

Capacity for Emotional Investment (CEI). As a measure of the value placed in others and in relationships through a reflection of moral standards, CEI also evaluates internal cognitive representations of the self and others. In CEI, the presence of more than one person on a TAT card may provide cues to the value of others beyond gratification of the individual's needs which are lacking in cards showing a

single person. Subjects in the present study obtained significantly higher CEI ratings on cards showing more than one person than on cards showing one person.

When presented a card showing one person, the individual may experience frustration of unmet needs and provide responses that reflect inadequate internal representations of the good object, thus provide responses which obtain lower ratings. However, when a card reflects externally represented sources of gratification (more than one person), the individual appears to utilize these cues to fantasize wished for good external objects which can then be endowed with value or worth beyond merely providing gratification.

However, these data could also be interpreted as supporting an inhibition interpretation. All of the cards analyzed contain scenes which could be viewed as stimuli for unmet needs and/or needs for achievement, and one card analyzed had two persons and depicted a scene suggestive of potential violence. It is possible that the cards showing more than one person activate defenses to contain anticipated frustration provided by others. Thus, responses to cards showing one person may reflect internal representations which have not been contained under threat of externally imposed frustration, resulting in lower level responses.

Affect-Tone of Relationship Paradigms (AT). As a measure of the positive to negative quality of interpersonal relationships, AT reflects the affect associated with internal representations of the self, others, and relationships. TAT cards depicting depressive or threatening scenes provide cues for responses which reflect more malevolent internal representations and which are lacking on more benign cards. Subjects in the present study obtained significantly higher AT ratings on cards reflecting benign scenes than on those reflecting depressive or threatening scenes.

When presented a card reflecting a depressive or threatening scene, the individual's negative or malevolent internal representations may be activated and reflected in the individual's responses. When shown a benign stimulus, the individual is then able to contain views of the world as hostile and threatening but all the while provide instead benevolent responses. Since TAT cards are not generally described as depicting upbeat or happy scenes, it is possible that the individual's defenses against a perceived dangerous environment remain intact unless the individual is faced with a highly depressive or threatening stimulus.

However, it is also possible that AT is merely a measure of reality testing. Individuals may simply provide responses which accurately reflect the affect demonstrated

on the TAT card. The between group AT differences suggest that this interpretation is too simplistic. However, although it is beyond the scope of this study, a content analysis of responses to determine the degree to which individuals adhere to the overall card stimulus would help to reveal the degree to which AT is a measure of reality testing.

Physical Abuse, Object Relations, and Card Features

Abused children and adolescents obtain significantly lower ratings on the SCORS scales of AT, CEI, and USC than do clinical controls (Freedenfeld, 1994). In addition, abused subjects' response patters are similar to clinical controls; i.e., abused individuals appear to utilize their available defenses and experiences (responding to stimulus pull and stimulus inhibition) in the same manner as do nonabused individuals in the object relations areas of AT, CEI, and USC.

In the case of CR, a different pattern emerges. When defenses are stimulated, abused individuals seem to demonstrate inadequate differentiation compared to controls. In other words, abused individuals appear less able to utilize defenses when confronted with fears of alienation, engulfment, and desertion than are control subjects. Apparently, however, when faced with more benign stimuli, the abused person's defenses are not activated and

dissimilarities in differentiation are no longer detected.

If CR is actually a measure of two constructs (cards with one person measure internal representations while cards with more than one person measure reality testing), then these data suggest that abused and control individuals are equally able to adhere to the reality of stimuli. Further, the low scores on cards showing more than one person would then suggest that both abused and control groups provided descriptive responses to these stimuli. Given the lack of supporting evidence (CEI results), it seems unlikely that people generally provide only descriptions of the cards showing more than one person as this interpretation implies.

Study Limitation

The generalizations which can be made based on the data utilized in the present study are limited by subject, examiner, and TAT card factors.

The TAT responses evaluated were obtained from a small number of subjects (78 total subjects). Further, the available subject pool was restricted by the cards which had been presented during each subject's evaluation; i.e., only subjects presented the five cards utilized in the study were examined. In addition, a nonclinical control sample was not evaluated. Since the clinical sample (nonabused) presented with difficulties which are commonly reported by abused individuals, it is possibly that significant interaction

effects would have been revealed if these commonalities were eliminated or controlled.

Although all examiners were clinical staff having completed a minimum of training, numerous characteristics were unavailable such as years of experience, age, and gender. Individual examiners selected the cards for presentation during assessments. As a result, subjects evaluated by some examiners may have been excluded from the study because of an examiner's card preference. Further, the order of card prerolled.

In addition, a small number of cards (five) were utilized in the present study and evaluated across four different scales. Only two and three cards were representative of each card feature analyzed. Also, cards depicted competing features examined on other scales; i.e., a card showing one person (feature used evaluating CR) may depict affective benign or negative scenes (features of AT).

Sample size, use of nonclinical controls, and card presentation factors may be controlled in future research. However, while many of the limitations of the present study could be eliminated in a laboratory environment, they are unavoidable in clincial research which is necessary if generalizations are to be developed for clinical populations.

Conclusions

Providing useful information to guide the clinician in TAT card selection and in evaluation of object relations functioning using cards possessing various characteristics, the present study contributes support to both stimulus pull and stimulus inhibition interpretations of card selection specific to the construct being evaluated.

A stimulus inhibition explanation appears to be supported by CR and USC, which seems to reflect the individual's internalization or view of the self, in that fantasy may be utilized to elicit wished for differentiation (CR) and control (USC) when stimulus cues for the wishes are unavailable. When cues for these wishes are present, the individuals appear to defend against the fears associated with the reality of their experience.

CEI seems to support a pull interpretation (stimulus pulls for experience of world); i.e., cues of more than one person elicit responses reflecting value of others. CEI may measure the individual's internalization or view of others rather than the self. Also, AT results appear to support pull interpretation as individuals provide more negative affective responses to more aversive stimulus cues and provide more positive affective responses to benign stimulus cues. AT may reflect the individual's affective experience rather than internalizations of the self or others.

Additional studies are needed not only utilizing rating

of object relations functioning, but utilizing other TAT interpretive systems as well to investigate various card features as pulls or inhibitors of responses. Clinicians' card selection has been driven by clinical lore which must be verified, altered, or invalidated by experimental and quasi-experimental research if the TAT is to be fully utilized as a clinical tool. Although this requires massive research, development of the Rorschach Comprehensive System demonstrates that this task is not insurmountable.

When considering an inhibition interpretation while utilizing a scoring system largely based on psychodynamic theory, it is reasonable to suggest that the responses of the individual reflect the use of defense mechanisms. If individuals respond more defensively when responding to certain cards, then they would be expected to provide stories containing more defensive language and reflecting the use of lower level defenses. Evaluating responses using both the SCORS and a system designed specifically for the evaluation of defenses (such as the one developed by Cramer) could provide additional insight into the role of defense utilization and object relations functioning.

It has also been posited that some stimuli may actually provide measures of individuals' reality testing in areas of object relations. Comparing responses using both the SCORS and a system designed specifically for the evaluation of

reality testing on the TAT could aid in the evaluation of object relations functioning based on specific stimulus cues. Utilization of other assessment tools such as the Rorschach which provide measures of reality testing could provide additional insight.

Also, either as a function of stimulus pull or stimulus inhibition, the depiction of one or more persons on the stimulus card appears to influence the rated level of object relations functioning in two areas (CR and CEI). The influence of the number of people appearing on the card was not tested in the other areas (AT and USC). Given this finding, it also is reasonable to suggest that the number of persons who are present during test administration may also influence these ratings. Since TAT research using general populations usually utilizes group administrations, and research using clinical populations usually results from individual administrations, comparisons between these approaches may be compromised. Analyses of within and between group differences during both individual and group administrations using population controls and various clinical groups are needed.

As is frequently the case in research, the present study raises as many questions as it answers. When evaluating TAT responses, the clinician must carefully consider not only the response but also the features of the

card which elicited a particular response. Assorted card features need to be considered as pulling or inhibiting stimuli and confirmed (or disconfirmed) by other data. Opposing hypotheses reflecting stimulus pull and stimulus inhibition interpretations need to be generated and confirming (or disconfirming) data sought throughout the test battery. Such an evaluative approach may reveal to the clinician the (possibly previously unrecognized) breadth of worthwhile information embedded in TAT responses.

APPENDIX

Table 1.

Summary of Social Cognition and Object Relations TAT Scoring System

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Complexity of Representations of People

Definition: This scale measures the extent to which a subject clearly differentiates the perspective of self and others; sees self and others as having stable, enduring, multidimensional dispositions; and sees the self and others as psychological beings with complex motives and subjective experiences.

Level 1	Lack of clear differentiation between characters; boundary confusion; confusion of points of view.
Level 2	Characters are separate but unidimensional; focus on physical description or action; fluid characterization.
Level 3	Simple elaboration of mental life; some sense of continuity over time of attitudes or simple dispositions.
Level 4	Characters are seen as having complex subjective states, enduring characteristics or mixed emotions or attributions.
Level 5	Characters possess enduring and momentary traits and states; complex motives and

conflicts; mixed feelings or attributes.

Affect-Tone of Relationship Paradigms

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

Level 1 World is viewed as tremendously threatening and overwhelmingly capricious and painful; malevolent representation.

Level 2 World is viewed as hostile, capricious, empty or distant, but not overwhelming.

Level 3 Mixed representations which are seen as mildly negative.

Level 4 Mixed representations; as a whole interpersonal relations are seen as neutral or mixed.

Level 5 On the whole relations with others are seen as positive.

Capacity for Emotional Investment

Definition: This scale measures the extent to which others are treated as ends rather than means, events are regarded in terms other than need-gratification,

moral standards are developed and considered, and relationships are experienced as meaningful and committed.

Level 1 Primary concern is gratification of needs; profound self-preoccupation; rules and authorities are seen as obstacles.

Level 2 Limited investment in people, relationships and moral standards; gratification remains primary aim; moral standards are primitive.

Level 3 Needs and wishes of others are considered; stereotypic concern for others; rules are respected but not invested in.

Level 4 Characters are seen as being able to invest in relationships and moral standards; commitment to abstract values.

Level 5 Autonomous selfhood in the context of committed relationships; rules are not taken as absolute but are carefully considered.

Understanding of Social Causality

Definition: This scale measures the extent to which attributions of the cause of people's actions, thoughts, and feelings are logical, complex, and psychologically minded.

Level 1 A lack of understanding of the concept of causality in the social realm.

Level 2	Rudimentary understanding of social causality; actions are explained by simple stimulus-response causality; minor logic errors.
Level 3	Understanding of multidirectional causality; rudimentary understanding of the role of thoughts and feelings in mediating action.
Level 4	Basic understanding of the role of psychological events in influencing thoughts, feelings, behaviors, and interpersonal interactions.
Level 5	Understanding that feelings and behaviors are caused by psychological processes; understanding of unconscious motivations.

Westen, Lohr, Silk, Kerber, & Goodrich (1985).

Table 2.

Murray's (1943) TAT Card Descriptions

Card 1	A young boy is contemplating a violin which rests on a table in front of him.
Card 2	Country scene: in the foreground is a young woman with book in her hand; in the background a man is working in the fields and an older woman is looking on.
Card 3BM	On the floor against a couch is the huddled form of a boy with his head bowed on his right arm. Beside him on the floor is a revolver.
Card 17BM	A naked man is clinging to a rope. He is in the act of climbing up or down.
Card 18GF	A woman has her hands squeezed around the throat of another woman whom she appears to be pushing across the banister of a stairway.

Table 3.

Henry's (1956) Descriptions of Expected Latent Stimulus Content

Card 1	This picture appears to be one dealing with the general issue of impulse versus control, or the question of the relationship of personal demands to those of outside cultural agents.
Card 2	This picture's basic emotional stimulus is in two areas: a. The stimulus of interpersonal relations proper and the challenge of a number of people together. It is basically the only card in the series that directly presents the subject with a group scene. Its particular stimulus, of course, deals with the relationship of younger to older and of male to female. To this extent, it is useful for eliciting feelings toward interpersonal interaction, toward parent-child relations, and toward heterosexual relations. b. The contrast between the new and the old, as represented by the story of the girl going off for education as opposed to the farm

folks. In this respect it is a useful picture in activating attitudes toward personal mobility and ambition and the extent to which the individual sees the traditional as valuable or as inhibiting.

Card 3GF — The emotional demand of this picture is that of its negative dramatic quality. In a sense, the stimulus is the question: why would a person be depressed or in pain and what will she do about it? In responding to this stimulus the familiarity of the subject with negative emotions, his basic optimism or pessimism, and the passive or assertive nature of his defenses are often revealed.

Card 17BM — This is an extremely useful picture because it reflects the subject's concept of the relation of the individual to his environment and images of his prowess or vulnerability to environmental forces. Narcissistic, exhibitionistic, and competitive ideas are readily aroused here as are notions of fear and escape.

Card 18GF — This would appear to be an aggressive stimulus...approximately half of normal adult subjects see this as a helpful, supportive

picture. However, the fact that notions of injury, anxiety, cruelty, or distress are reported may suggest that even this group at some level recognizes the aggressive scene for what it is and attempts to avoid it by turning it into its opposite. This would, in essence, appear to be more relevant to the character of the group of subjects than to any need to redesignate the picture.

It might therefore still be appropriate to propose this as a stimulus of aggression and to concern ourselves with the ways in which subjects attempt to deny and cover up this recognition.

Table 4.

Correlation Matrix of Subject Variables

	Age	Male	Cauc	2Pars	Nucl	VIQ	PIQ	FSIQ
Age	1.00	.20	-.03	-.02	-.03	-.04	-.14	-.09
		P=.08	P=.78	P=.87	P=.77	P=.76	P=.24	P=.45
Male[a]		1.00	-.18	-.02	.05	-.03	-.09	-.05
			P=.12	P=.63	P=.63	P=.82	P=.43	P=.66
Cauc[b]			1.00	-.17	.20	-.45	-.27	-.44
				P=.14	P=.08	P>.001	P=.02	P>.001
2Pars[c]				1.00	.16	-.01	-.09	-.09
					P=.17	P.94	P=.44	P=.46
Nucl[d]					1.00	-.04	.12	.03
						P=.71	P=.29	P=.82
VIQ						1.00	.50	.88
							P>.001	P>.001
PIQ							1.00	.83
								P>.001
FSIQ								1.00

[a] coded 0=male, 1=female

[b] coded 0=Caucasian, 1=other

[c] coded 0=both parents, 1=single parent

[d] coded 0=nuclear family, 1=extended family

Table 5.

Correlations Between SCORS Scales and Subject Descriptive Variables

	CR	AT	CEI	USC	ObjRel
Male[a]	.27 P=.02*	.13 P=.24	.19 P=.10	.41 P>.001*	.30 P=.008*
Cauc[b]	-.18 P=.08	.10 P=.39	-.22 P=.06	-.27 P=.02*	-.13 P=.12
2Pars[c]	.05 P=.64	.00 P=.96	.03 P=.81	-.05 P=.68	.01 P=.91
Nucl[d]	.02 P=.89	-.08 P=.47	-.17 P=.13	-.16 P=.17	-.14 P=.21

*Significant Correlations

[a] coded 0=male, 1=female

[b] coded 0=Caucasian, 1=other

[c] coded 0=both parents, 1=single parent

[d] coded 0=nuclear family, 1=extended family

Table 6.

Correlations Between SCORS Scales and Subject Developmental Variables

	CR	AT	CEI	USC	ObjRel
Age	.32 P=.004*	.27 P=.017*	.28 P=.013*	.39 P>.001*	.42 P>.001*
VIQ	.13 P=.25	-.16 P=.16	.17 P=.14	.09 P=.42	.03 P=.83
PIQ	-.04 P=.74	-.12 P=.29	.03 P=.79	.01 P=.92	-.06 P=.60
FSIQ	.07 P=.55	-.17 P=.14	.12 P=.28	.07 P=.52	-.01 P=.90
Word Count	.39 P>.001*	-.07 P=.52	.26 P=.024*	.20 P=.09	.19 P=.10

*Significant Correlations

Table 7.

Correlation Matrix of SCORS Scales

	CR	AT	CEI	USC	ObjRel
CR	1.00	.09 P=.41	.42 P>.001	.49 P>.001	.55 P>.001
AT		1.00	.37 P=.001	.29 P=.009	.78 P>.001
CEI			1.00	.42 P>.001	.77 P>.001
USC				1.00	.66 P>.001
ObjRel					1.00

Table 8.

Means, Effects, and Significance for CR and CEI

	Pull One Person	Inhibit Multiple Persons
CR		
Abused	2.09 (.21)	2.04 (.41)
Control	2.13 (.26)	2.04 (.29)
CEI		
Abused	1.55 (.34)	1.90 (.48)
Control	1.73 (.42)	2.24 (.57)

	SS	F	Significance
Abuse Main Effect	1.16	5.67	.020
CR Card Main Effect	3.89	36.93	>.001
CR Interaction Effect	1.10	10.42	.002
CEI Card Main Effect	4.83	49.41	>.001
CEI Interaction Effect	.18	1.84	.179
CR-CEI-Abuse Interaction Effect	.06	.38	.539

Figure 1.

Stimulus Pull and Effects for CR

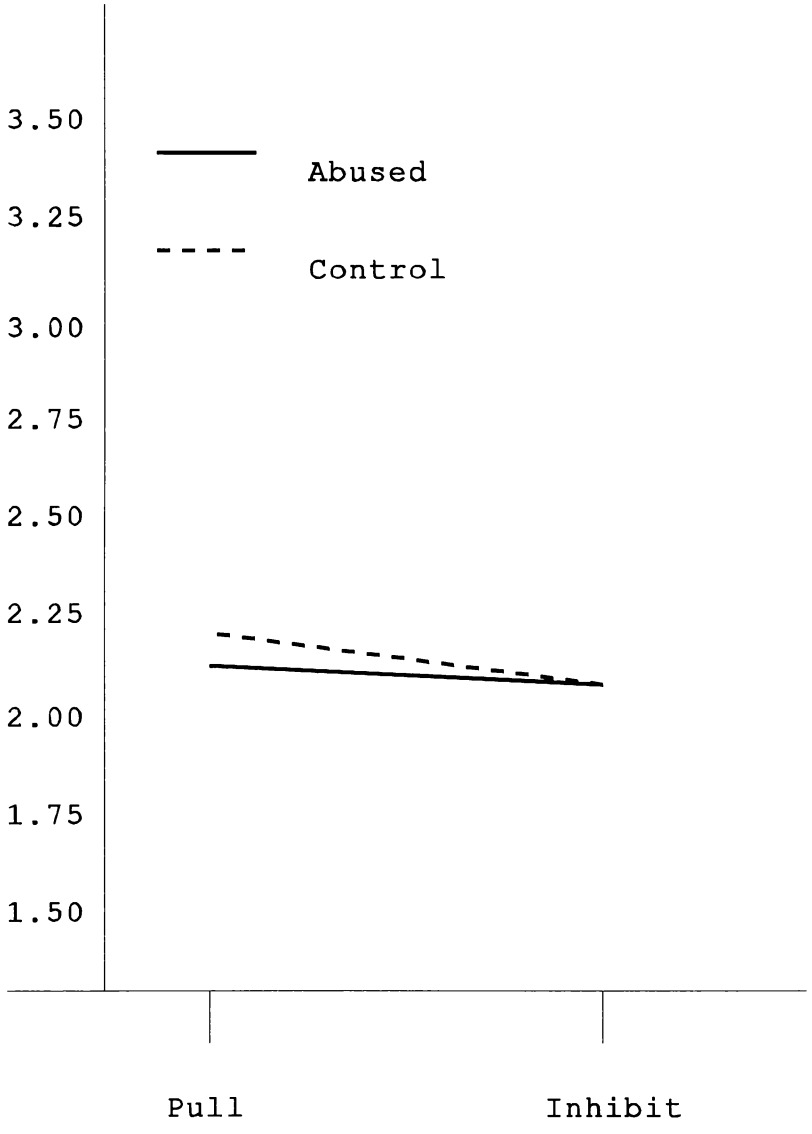


Figure 2.

Stimulus Pull and Inhibit Effects for CEI

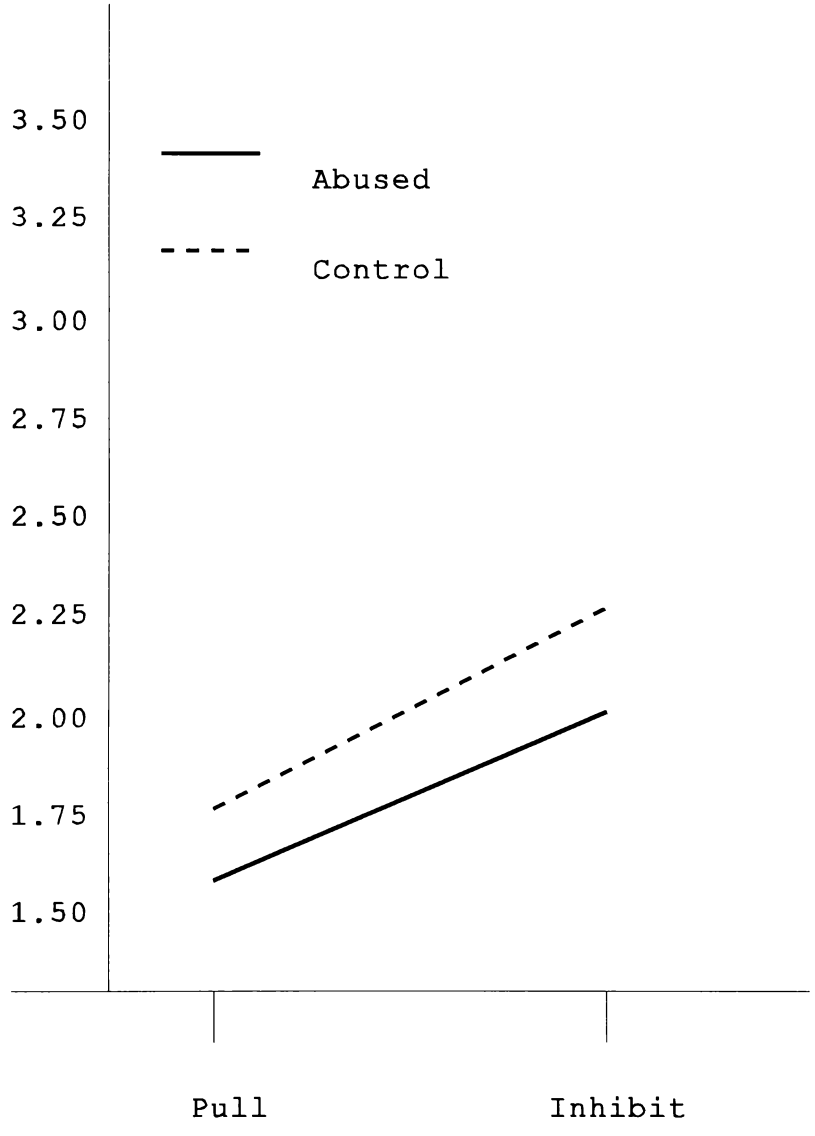


Table 9.

Means, Effects, and Significance for AT

	Pull Negative Scene	Inhibit Benign Scene
Abused	2.37 (.57)	3.05 (.75)
Control	2.81 (.53)	3.30 (.62)

	SS	F	Significance
Abuse Main Effect	4.38	9.23	.003
AT Card Main Effect	13.13	48.94	>.001
AT Interaction Effect	.39	1.44	.235

Figure 3.

Stimulus Pull and Inhibit Effects for AT

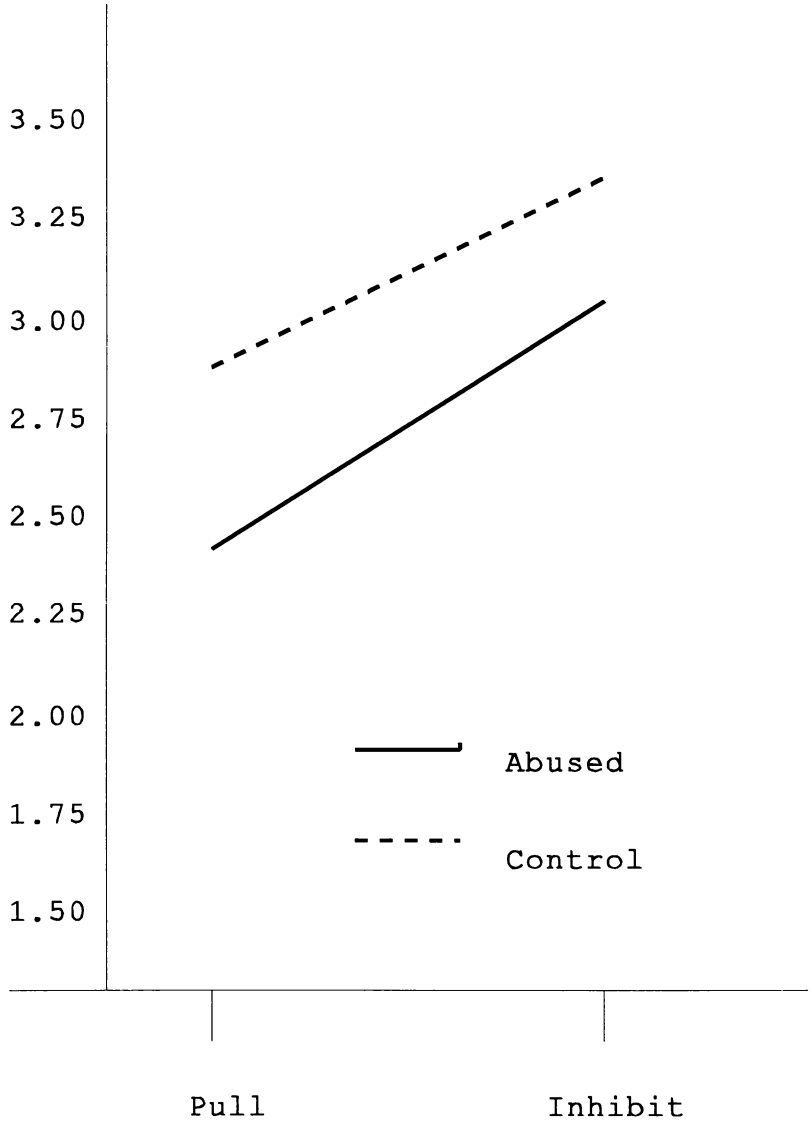


Table 10.

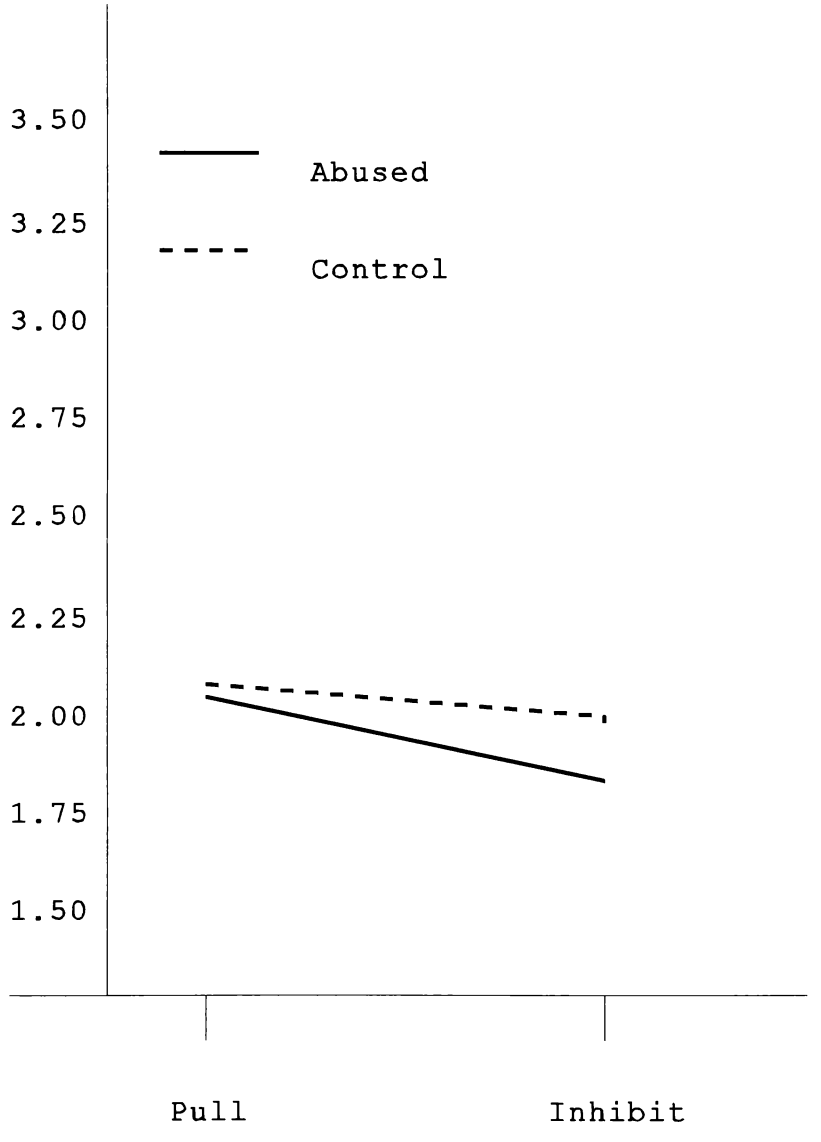
Means, Effects, and Significance for USC

	Pull Passive	Inhibit Active
Abused	1.99 (.30)	1.79 (.29)
Control	2.03 (.34)	1.98 (.23)

	SS	F	Significance
Abuse Main Effect	.46	5.79	.019
USC Card Main Effect	.57	7.52	.008
USC Interaction Effect	.20	2.64	.108

Figure 4.

Stimulus Pull and Inhibit Effects for USC



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