

City University of New York (CUNY)

## CUNY Academic Works

---

All Dissertations, Theses, and Capstone  
Projects

Dissertations, Theses, and Capstone Projects

---

9-2016

### Object Relations in Children's Projective Testing: Applying the Mutuality of Autonomy Scale to the Thematic Apperception Test

Lily A. Thom

*The Graduate Center, City University of New York*

[How does access to this work benefit you? Let us know!](#)

More information about this work at: [https://academicworks.cuny.edu/gc\\_etds/1544](https://academicworks.cuny.edu/gc_etds/1544)

Discover additional works at: <https://academicworks.cuny.edu>

---

This work is made publicly available by the City University of New York (CUNY).  
Contact: [AcademicWorks@cuny.edu](mailto:AcademicWorks@cuny.edu)

**OBJECT RELATIONS IN CHILDREN'S PROJECTIVE TESTING:  
APPLYING THE MUTUALITY OF AUTONOMY SCALE TO THE  
THEMATIC APPERCEPTION TEST**

By Lily Thom

A dissertation submitted to the Graduate Faculty in Psychology in partial fulfillment of  
the requirements for the degree of Doctor of Philosophy,  
The City University of New York  
2016

©2016

LILY THOM

All Rights Reserved

Object Relations In Children's Projective Testing:  
Applying The Mutuality Of Autonomy Scale To The Thematic Apperception Test

by

Lily Thom

This manuscript has been read and accepted for the  
Graduate Faculty in Psychology in satisfaction of the  
dissertation requirement for the degree of Doctor of Philosophy

Steven Tuber, Ph.D.

---

Date

---

Chair of Examining Committee

Richard C. Bodnar

---

Date

---

Executive Officer

Lissa Weinstein, Ph.D.  
Benjamin H. Harris, Ph.D.  
Hillary Gomes, Ph.D.  
Susan Coates, Ph.D.  
**Supervisory Committee**

THE CITY UNIVERSITY OF NEW YORK

**ABSTRACT**  
**OBJECT RELATIONS IN CHILDREN’S PROJECTIVE TESTING:  
APPLYING THE MUTUALITY OF AUTONOMY SCALE TO THE  
THEMATIC APPERCEPTION TEST**  
By Lily Thom

Chair: Steven Tuber, Ph.D.

Psychodynamic assessment of object relations on projective tests has consistently been shown to contribute to a better understanding of children’s psychological functioning and to guide therapeutic interventions (Tuber, 1992). This research examines the enhanced utility of applying a psychodynamically-derived scale of children’s object relations to a commonly used projective assessment tool, the Thematic Apperception Test (TAT) (Morgan & Murray, 1935; Murray, 1943). The current study investigates the adaptation and application of the Mutuality of Autonomy Scale (MOA) (Urist, 1977; Urist & Shill, 1982), commonly used as a Rorschach Inkblot Method object relations scale, to examine verbal narratives on the TAT.

It was hypothesized that findings from the proposed study would demonstrate that the MOA is a readily employable scale for examining children’s object relational paradigms on TAT responses. A second aim of the study was to demonstrate concurrent validity between MOA scores and the Defense Mechanisms Manual (DMM), a well-validated tool for assessing developmental level of defenses on the TAT (Cramer, 1991). In addition, this work contributes to the need for empirically-validated, systematic approaches to interpreting TAT data (Rossini & Moretti, 1997; Cramer, 2004).

The findings showed several expected, significant relationships between level of defense and object relations that confirmed the study’s hypotheses. Children who used

the most mature defense of identification also showed more adaptive object relations. Use of denial, the most primitive defense, was negatively correlated with both maladaptive and adaptive object relations. Use of projection was correlated with the most disturbed object relations. The findings provide insight into the relationship between defenses and object relationships and contribute to the psychodynamic theory of personality development. The research constitutes an early stage of psychometric validation for the MOA as adapted for use with the TAT.

## ACKNOWLEDGMENTS

First and foremost, endless applause and thanks to Dr. Steve Tuber for his incredibly consistent support over several years. I cherish your wisdom and all you have taught me. How lucky I have been to work with you!

Thank you to my committee, Dr. Lissa Weinstein for lending her extraordinary brain to this project and Dr. Ben Harris for being a stellar role model.

Thank you to Dr. Hillary Gomes for her generosity in sharing her research with me and Dr. Susan Coates for her supervision and participation in this research.

Thank you to Dr. Arietta Slate for her mentorship, humor and great kindness to me over the years.

Thank you to Katie Eiges who has paved the way for me, gone above and beyond to help me, and made the dissertation process full of interest and inspiration.

Thank you to my family for their hearty love, food and laughter.

Thank you, Margaret, for letting me work so hard during the first year of your life.

Lastly, thank you to Jamie – none of this without you.

## TABLE OF CONTENTS

|  |     |
|--|-----|
| <b>ABSTRACT</b>  | iv  |
| <b>ACKNOWLEDGEMENTS</b>                                  | vi  |
| <b>LIST OF TABLES</b>                                    | vii |
| <b>INTRODUCTION</b>                                      |     |
| <b>LITERATURE REVIEW</b>                                 |     |
| Introduction   | 1   |
| Object Relations Theory                                  | 1   |
| Object Relations Assessment Research                     | 7   |
| Psychodynamic Model of Defenses & Research               | 15  |
| Thematic Apperception Test (TAT) Assessment Research     | 20  |
| Summary  | 23  |
| <b>METHODS</b>   |     |
| Participants   | 24  |
| Measures   | 25  |
| Procedures   | 33  |
| Study Summary & Hypotheses                               | 33  |
| <b>RESULTS</b>   |     |
| Introduction   | 35  |
| Preliminary Analysis                                     | 35  |
| Main Analysis: Relationship between MOA-TAT & DMM Scales | 37  |
| <b>DISCUSSION</b>  |     |
| Introduction   | 40  |
| Relationship between Defenses & Object Relations         | 40  |
| MOA-TAT Adaptation                                       | 47  |
| Study Limitations & Future Directions                    | 48  |
| Conclusions  | 50  |
| <b>APPENDICES</b>  |     |
| <b>APPENDIX A:</b> Mutuality of Autonomy Scale (MOA)     | 53  |
| <b>APPENDIX B:</b> Defense Mechanisms Manual (DMM)       | 55  |
| <b>APPENDIX C:</b> MOA-TAT Scoring Manual                | 56  |
| <b>REFERENCES</b>  | 61  |

## LIST OF TABLES

|   |    |
|---|----|
| <b>TABLE 1.</b> Demographic Characteristics of Participants | 36 |
| <b>TABLE 2.</b> DMM and MOA Correlations                    | 39 |

## LITERATURE REVIEW

### *Introduction*

The primary aim of this research is to investigate how the assessment of object relations on projective testing meaningfully contributes to psychodynamic diagnosis and treatment. The following review of the literature will first examine the role of object relations within psychodynamic theory as well as the literature on the role of object relations in personality development. This work will then describe the literature on projective assessment of object relations, which highlights the diagnostic and clinical utility of this area of research. The review next describes the common processes that underlie development of object relations and the role of defenses in psychodynamic theory. This understanding provides a theoretical foundation for the hypothesis that this research will demonstrate concurrence between measures of defenses and object relations on the TAT. The study more fundamentally explores the overarching hypothesis that assessment of object relations on the TAT specifically will provide a rich source of diagnostic and clinical information. The literature described herein elucidates the potential of the TAT to be an apt tool for use with the MOA scale of object relations.

### *Object Relations Theory*

Object relations theory re-envisioned Freud's preliminary idea that human's unconscious instinctual strivings, or drives, are the central organizers of human experience. For Freud, our biological drives, wishes, fears and fantasies—represented by the id—come into conflict with our ego's sense of reality and need to live within cultural structures. Freud imagined the id as containing both loving, desirous aspects of the id, which were referred to as the libido, and destructive, hateful strivings. Object relations

perspectives expanded Freud's interest in the vital importance of early family life by conceptualizing these drives within a framework that emphasizes the interpersonal relationships within which these drives percolate. Object relations theorists propose that relationships and our internal representations of relationships are fundamental to psychic development (Fairbairn, 1952; Klein, 1946; Winnicott, 1960). Through early experiences of caregiving we establish enduring schemas of human interactions and relationships. During development these internal images constantly interplay with our fantasies about others, our expectations and our actual experiences with others. As psychic and cognitive development deepens, we gradually reconcile these internal images of others with real relationships, such that the "world of inner objects...gradually changes and becomes closer to the 'external' perceptions of the reality of significant objects." (Kernberg, 1966, p. 242). This gradual process is delineated in the theory of the development of object relations.

Fairbairn (1952) described Freud's drives as object seeking and necessarily directed toward others. Early libidinal strivings directed towards caregivers establish an initial relationship of undifferentiated incorporation, or taking in, of the other. With typical development, objects become increasingly differentiated and through this process we are able to engage with external reality and develop ego capacity. Klein contributed to Fairbairn's perspective by examining early infant-caregiver relations and attending more closely to the role of aggressive strivings, in addition to libidinal ones (1957). Klein explained the role of paranoid-schizoid position in typical development. The infant, in his early undifferentiated state, experiences destructive instincts in the form of paranoia and splits good from bad experiences in the form of the schizoid position (Klein, 1946). With

development, the typical child begins to integrate her experiences of both good and bad, causing her to move into the depressive phase in which she can acknowledge loss of and separation from others. If integration does not occur, projection and splitting of bad experiences continues and the adult remains in a paranoid-schizoid position. For Klein, the course of healthy development allows for inevitable libidinal and aggressive feelings towards the caregiver to be reconciled by forming an integrated view of the object as able to withstand both love and hate.

Winnicott (1960) proposed a detailed theory of the development of object relations in the first years of life. He described how the typical course of differentiation between self and other requires the caregiver to process and reflect the child's experiences of libido and aggression. This activity of early "mirroring" fosters the child's crucial ability to spontaneously express her true self and experience a sense of her own vitality (Kohut, 1978; Winnicott, 1960). However, when this infant-caregiver process is disrupted, the caregiver may typically respond by invalidating the child's experience, retaliating against negative affect or evoking heightened feelings of fear or shame. In response, the intense id-related emotional experiences, such as need, dependence and aggression cannot be accepted and tolerated within the child's sense of self (Kernberg, 1966). Because the child's feelings have not been consolidated meaningfully by the caregiver, the child cannot locate himself and his internal experiences accurately. The source of negative affect is not clear, such that the individual struggles to determine whether feelings originate from within the self, from within another, or from external reality. As a result, the boundaries between the external and internal, and between reality and fantasy become blurred.

Object relations theorists provide a description of how these early relational experiences contribute to later personality organization. In sum, early caregiving relationships are crucial for the process of differentiation between ones' internal life and external reality. Early differentiation allows for the capacity to make sense of our own and others' strong affective experiences. With disturbances in object relations the individual expects strong affect to lead to disorganizing and harmful interactions with others. Damaging object relational patterns are then repeatedly acted out with others, including in the therapeutic relationship (Kernberg, 1966). The results of disturbed object relations are often a lack of ego development, difficulty with reality testing, and the sense that relationships are not mutual, autonomous and benevolent. These patterns interfere with the healthy capacity to identify with others, hence to engage with these others in flexible and adaptive ways, and to perceive reality.

Object relations theory emphasizes the ways in which these early disturbances in experiences of self and other form the basis of a consistent and enduring personality. A key component of personality is the individual's representations of self and other, which affects how the individual functions in many areas of life. A psychodynamic view understands personality structure as the stable ways that the individual thinks, feels, experiences and behaves in the world (PDM Task Force, 2006). While this paper primarily focuses on psychodynamic views of personality development, it is important to recognize that modern object relations theory approaches take into account various other determinants in the development of personality structure. This literature integrates research on the role of biological predisposition, brain development and the role of trauma, specifically relational and sexual trauma in personality development (Herman,

1992; Gunderson & Lyons-Ruth, 2008; Siever & Weinstein, 2009; Schore, 2010). The work in these areas points to complex, multidirectional interactions among environmental, genetic and neurobiological features that reciprocally contribute to the development of personality.

Each individual's object relations paradigms interact with several other central aspects of personality structure, e.g., sense of self, affect tolerance and regulation, ego ideals and ego strength, and reality testing. Psychoanalytic research and theory proposes common patterns of functioning in these areas and accompanying symptomatology (PDM Task Force, 2006). Recognizing the patterns of symptom clusters and range of pathology in each of these areas of personality structure is crucial for effective diagnosis and treatment. Within each pattern of symptomatology, levels of personality organization may range from neurotic and highly adaptive to psychotic and severely dysfunctional. Following the Freudian model of fixations in developmental periods, object relations perspectives propose that the level of personality is largely determined by early disturbances in relational experiences. Psychodynamic understanding of level of organization envisions that the neurotic is a differentiated individual struggling with triadic relationships and basic id-superego conflict. The borderline level of organization describes the area of functioning that exists between neurotic and psychotic and is characterized by "stable instability" (Kernberg, 1975; McWilliams, 2011). For those with primarily psychotic organization, the lack of boundaries between the external and internal constitutes the basic difficulties (McWilliams, 2011).

Each of the object relations theorists describes, in overlapping ways, the sources, traits of and outcome of objects relations disturbances for personality pathology.

Kernberg contributes a description of the borderline condition that emphasizes common and stable features of the varying personality types (1975). He delineates key features, such as defensive patterns and response to treatment, that differentiate borderline functioning from neurotic and psychotic levels of organization. For Klein, the result of object relations pathology is the persistence of the paranoid-schizoid position rather than increasingly integrated and complex views of self and other. Kohut focuses on the emergence of difficulties for the development of a sense of self as an autonomous, vital and coherent being (Kohut, 1978). For Kohut, this underlying disorder of the self forms the basis of all behavioral manifestations. He distinguishes the more severe psychotic manifestations from chaotic and borderline, narcissistic, and anti-social expressions of such disorders. Winnicott describes personality disturbances as responses to inadequate holding, mirroring and fostering of separateness in early experience. The core result of this deficiency is the “False Self” that emerges in order to protect the inner “True Self” from annihilation (Winnicott, 1960). Winnicott’s work focuses on manifestations of the “False Self”, such as anti-social presentation, and preoccupation with threat of annihilation or fragmentation, which may ultimately present as psychosis.

The Diagnostic and Statistical Manual of Mental Disorders’ (DSM) (American Psychiatric Association, 2013) discussion of personality types, in particular, has developed from these object relational descriptions and research on the role of disturbances in self and interpersonal functioning. Generational changes to the basic personality types that occur with each updated edition reflect the nuances described by the above theorists. The differences in descriptions of the course of pathology signal the complexity in categorizing multi-determined, complex and socio-culturally bound

internal human experiences and accompanying symptoms (McWilliams, 2011; PDM Task Force, 2006). Despite the messy nature of categorization, there is some long-standing consensus on clinical manifestations of disorders of self and interpersonal functioning (McWilliams, 2011). For example, the narcissistic, borderline, avoidant, schizoid, schizotypal and antisocial types remain as enduring descriptions of patterns of personality functioning in both the current DSM-V (American Psychiatric Association, 2013) and the Psychodynamic Diagnostic Manual (PDM) (PDM Task Force, 2006).

### *Object Relations Assessment Research*

Projective testing has historically served the purpose of bridging theory and clinical observation by providing standardized, validated ways to apply psychodynamic theory (Holt, 1968; Meyer & Archer, 2001; Viglione & Hilsenroth, 2001). While the theoretical and clinical literature describing psychodynamic concepts is vast, there is a continual need for research-driven investigation of the nature of object relations and defenses in psychopathology. Within the psychoanalytic literature there are strong voices urging for the need to bring operational conceptual definitions to psychoanalytic ideas (Blatt & Lerner, 1983; Bram & Yalof, 2015). Specifically, projective tools have offered data that can be used to better understand the structure and organizational level of an individual's personality.

In addition, projective assessment can reveal potential themes and limitations that will shape the individual's response to interventions (Tuber, 2004). There is evidence that projective testing materials benefit clinical interactions by aiding clinicians to anticipate treatment outcomes (Appelbaum, 1977). Within object relations theory, projective tools—primarily, the Rorschach Inkblot Method (RIM) and the Thematic Apperception Test

(TAT)—have provided fertile ground for exploring psychodynamic constructs using quantitative methodology (Erdberg, 2012; Tuber, 2010). Because projective tools investigate psychic processes that occur on the unconscious level, they allow for exploration of psychodynamic concepts in ways that are not achievable through more standard diagnostic evaluations (Fowler & Erdberg, 2005; Huprich & Greenberg, 2003).

From an object relations perspective, the Rorschach accesses the individual's unconscious personal repertoire of human relationships. Hermann Rorschach (1949) argued that the presence of human figures on the Rorschach had great psychic meaning and responses with human forms in motion emerged as an important component of typical responses (Rappaport, Schafer & Gill, 1968). Across Rorschach scoring systems with divergent theoretical bents movement responses have consistently been understood as a rich source of information regarding relational experiences of self and others (Exner, 1969; Klopfer & Kelly, 1944; Piotrowski, 1977; Porcelli, Giromini, Parolin, Pineda & Viglione, 2013).

Rorschach movement responses indicate that the individual has a kinesthetic experience of identification with the image on the card (Rappaport et al., 1968). Recent neuro-imaging research has validated this claim, demonstrating mirroring activity in the brain during human movement responses on the Rorschach (Porcelli et al., 2013). The nature of that kinesthetic experience may vary depending on the individual's object relational sense of what it means to experience connection with others. Mayman describes, "When a person calls to mind an image of someone else on the Rorschach test, he invests a small part of himself in that other person with whom he is, for the moment, engaged." (1967, p. 20). As a result, the Rorschach can provide an *in vivo* picture of

object relations. For an individual with healthy object relations, kinesthetic experiences of the other evokes the individual's tendency to identify with, empathize with and experience mutuality while maintaining her sense of autonomy (Mayman, 1967). In contrast, an individual with more primitive object relations may withdraw from or block relational experience. In other cases, the evocation of an engagement with another may provoke a sense of loss of autonomy, and impending threat or catastrophe.

Examination of object relations with the use of projective tools constitutes a rich area of research. In its use with a wide range of pathology, object relations level has showed convergence with thought disorder, severity of psychiatric symptoms, and lifetime psychosis severity (Blais, Hilsenroth, Castlebury, Fowler & Baity, 2001; Blatt, Tuber & Auerbach, 1990; Fowler, Hilsenroth & Nolan; Goddard & Tuber, 1989; Harder, Greenwald, Weschler & Ritzler, 1984; Leifer, Shapiro, Martone & Kassem, 1991; Spear & Sugarman, 1984; Tuber & Coates, 1989). Object relations measures have been particularly useful in discriminating among diagnostic groups. They have reliably distinguished between borderline personality subgroups and other major psychiatric illnesses (Harder et al, 1984). Blatt et al. (1990) demonstrated that psychotic, borderline and neurotic/depressed patients had differing levels of object relations, thought disorder and affective lability. Spear et al. (1984) showed object relations differences between paranoid and obsessive borderlines, and schizophrenics. In a sample of patients with complex trauma, level of object relations corresponded to disturbances in thinking, reality testing and level of stress (Leifer et al., 1991). Object relations measures have also been used to meaningfully predict self-mutilation in borderline subjects and re-hospitalization for inpatient psychiatric patients (Fowler et al, 2000; Tuber, 1983).

Beyond its diagnostic validity, assessment of object relations has been used to guide psychodynamic interventions, and to measure treatment outcomes. These measures aid in understanding the nature of patients' relational experiences and how this will affect therapeutic process and outcome (Tuber, 2000; Tuber 2004). Within psychodynamic treatment, the patient's relational experiences—past, present and within the therapeutic interaction—are central to psychological change and growth. In fact, across modalities, there has emerged an emphasis on the central role of the therapeutic relationship, or working alliance, as a key component of positive treatment outcomes (PDM Task Force, 2006; Shedler, 2010). Psychodynamic conceptions of personality allow the patient to benefit from a therapeutic relationship that functions like the mirroring of early caregiver relations. The patient's expectations and fantasies of malevolent or undifferentiated relational experiences are activated, explored and ultimately met with more complex, differentiated and benevolent therapeutic interactions (Wachtel, 1993).

Comprehensive understanding of a patient's object relational world can be invaluable in constructing appropriate treatment and anticipating difficulties in the transference relationship (Blatt & Lerner, 1983; Tuber, 1992). Measures of object relations have been effective in predicting response to treatment as well as treatment continuation and adherence (Ackerman et al., 2000; Cook, Blatt & Ford, 1995; Hilsenroth, Handler, Toman & Padawer, 1995; Horner & Diamond, 1996). Object relations scales have shown to be effective in investigating the mechanisms of changes in mental representations in a comparison of treatment groups (Blatt & Shahar, 2004). This understanding can take into account patients' capacity to engage in a relationship and

accordingly may facilitate interventions that are appropriately and sensitively matched to the individual (Ackerman et al., 2001).

The present research uses the Mutuality of Autonomy Scale (MOA) (Urist, 1977) to assess object relations. The MOA is a psychodynamically-derived scale of object relations for the Rorschach Inkblot Method that has been well-validated for use with both children and adults (*see Appendix A*) (Ackerman et al., 2001; Blatt et al., 1990; Bombel et al., 2009; Fowler, Ackerman, Spearburg, Bailey, Blagys, & Conklin, 2004; Tuber, 1992; Urist et al., 1982). The scale incorporates Kohut (1971) and Kernberg's (1977) theories central object relational paradigms in its hierarchy of health and pathology. It was created to capture the developmental shifts that occur in the early caregiver-child dyad and to reflect the child's "changing conception of its relative embeddedness in, or psychic separateness from, figures in the external world" (Urist et al., 1982, p. 450). The MOA's seven scale points measures representations of interactions along a developmental continuum that reflects this gradual continuum of intrapsychic individuation and connection with others. Lower numerical scores correspond to the healthiest form of interaction, depicting relationships as differentiated, benevolent and mutually autonomous. As scores become numerically higher they indicate relationships that are increasingly less differentiated and represent struggles with autonomy and dependency. The highest numerical scores indicate the move from threatening interactions to coercive, violent ones and then from malevolent to wholly destructive.

An individual's MOA profile consists of the range of relationships observed on a Rorschach protocol. As such, this approach illuminates the repertoire of relationships that exist for an individual (Mayman, 1967). The bulk of MOA research has made use of the

scale by attending to the range (single highest and lowest scores), mean and mode of the scores captured in a data set (Ackerman et al., 2001). This attention to the variability of scores is based on the understanding that phenomenological experience forms the basis of object relations (Mayman, 1967; Tuber, 1992). Thus, MOA data help depict the real life range of human interactions that make up an individual's object relations (Ackerman et al., 2001). Mean and modal scores capture the typical functioning of the individual, while the range speaks to both capacity for healthy relatedness and potential for regressive relational experiences. This approach takes into account both adaptive and maladaptive parts of the individual's object relations. Fowler et al. (2005) argue that an accurate depiction of the full range of object relational experience captures the fluctuating ego functioning that is characteristic of borderline level personality organization. MOA profiles, rather than single scores, appear to correspond to particular diagnostic patterns and levels of functioning.

Since the MOA's initial use with an adult schizophrenic population (Urist, 1977) it has been shown to have construct validity as a measure of object relations (Ackerman, Hilsenroth, Clemence, Weatherill & Fowler, 2001; Blatt, Tuber & Auerbach, 1991; Bombel et al., 2009). The MOA scale has been useful in distinguishing between patient groups as well as in predicting interpersonal behavior and future hospitalizations (Blatt et al., 1990; Fowler, Hilsenroth & Nolan, 2000; Leichsenring, 2004; Tuber, 1983). The MOA is poised to become more widely used in clinical setting because a version of the scale has been included in the Rorschach Performance Assessment System scoring method (Meyer, G.J., Viglione, D.J., Mihura, J.L., Erard, R.E. & Erdberg, P., 2011).

The MOA has been particularly useful in assessing children's object relations.

A review of MOA studies with child participants indicated no correlation between MOA score distributions and chronological age (Tuber, 1992). Rather, the scale fits the psychodynamic concept that psychic development consists of a shift from primitive to increasingly more adaptive object relations (Tuber, 1992). A key component of the MOA is its reported ability to apply to non-human interactions such as relationships between inanimate object and animals, which are more abundant in children's Rorschach protocols than human interactions (Tuber, 1992). As a result, the MOA scale is more suitable for children's Rorschach assessments than object relations measures that depend solely upon depictions of human interactions.

In use with children, MOA scores meaningfully predicted re-hospitalizations for 70 boys in psychiatric inpatient treatment (Tuber, 1983). Specifically, the single healthiest object relations score predicted avoidance of further hospitalization while the presence of relatively unhealthy object relations scores were associated with later re-hospitalization. MOA use with children has demonstrated that level of object relations is a meaningful indicator of mental health functioning in a range of psychological disorders (Coates & Tuber, 1985; Goldberg, 1987; Leifer, Shapiro, Martone & Kassem, 1991) In a study comparing children with Attention Deficit Disorder (ADHD) and those with Borderline Personality Disorder (BPD), children with ADHD exhibited more disturbed MOA scores in proportion to adaptive responses than the BPD group (Thomas, 1987; as cited in Tuber, 1992). In a sample of 19 boys, participants with separation anxiety had fewer adaptive MOA scores and a greater number of dependent representations than the control group (Goddard & Tuber, 1989).

In a sample of 79 girls who had experienced sexual trauma, experiences of abuse

were correlated with the subjects' most disturbed score and median scores were higher for abused girls than the control group (Leifer et al., 1991). In addition, however, both the traumatized girls and the control group showed no difference on the single most adaptive scores. Of 232 children and adolescents with complex chronic trauma, an adaptive score depicting parallel activity was exhibited most and followed by the least adaptive score (Tiedemann-Fuller, 2008). The researcher hypothesized that the profile of highly polarized MOA scores among traumatized samples indicates the presence of psychic splitting for these individuals, wherein both highly positive and highly malevolent representations are commonly present.

Tuber and Coates (1989) found significantly more disturbed MOA scores and a higher mean MOA score compared to controls among 26 boys who were referred to outpatient psychiatric treatment for Gender Identity Disorder. A noteworthy feature of the pattern of responses demonstrated that the study participants had more benign responses for female figures while malevolent content were attributed to male figures. A study investigating a nonclinical population of preschool children with imaginary companions found meaningful differences between the MOA scores pertaining to human versus nonhuman interactions (Meyer & Tuber, 1989). Together, these findings indicate how patterns of MOA responses illuminate the phenomenological experience of the individual and its role in shaping personality.

The literature has demonstrated clear differences between clinical and non-clinical MOA profiles (Goddard & Tuber, 1989; Leifer et al., 1991; Tuber, 1992; Tuber & Coates, 1989). A study of 100 children has established an initial set of normative data for the MOA (Cooper, 2003). In the normative data collected thus far, modal and mean

responses show plentiful benign interactions and a lack of malevolent responses (Cooper, 2003; Tuber, 1989). In a study of 127 middle school children, MOA scores were related to teachers' ratings of interpersonal functioning, children's perceived control and academic grades (Ryan, Avery & Grolnick, 1985). Research has shown shifts in MOA scores with expectation of a significant stressor, indicating that the construct may not be entirely stable, particularly for nonclinical samples (Tuber, Frank, Santostefano, 1989). An initial study of 40 children showed more adaptive mean MOA scores for girls than boys (Tuber, 1989). However, a follow-up with 100 participants did not show sex differences, leaving questions regarding whether sex differences were due to the small sample size or can be further replicated (Cooper, 2003).

#### *Psychodynamic Model of Defenses & Research*

The development of object relations in childhood is inextricably intertwined with defenses that the child unconsciously employs to modulate the strong affects that arise from interpersonal interactions. The psychodynamic model of personality structure conceptualizes common psychic processes in the development of both object relations and of defenses. While object relations develop through early relationships, accompanying defenses develop in response to inevitable conflict that arises from the struggle between ego, id and superego. Defenses function as normal, unconscious responses that decrease stressful experiences, both internal and external (McWilliams, 2011).

Defenses have been described in detail in the psychodynamic literature (A. Freud, 1936; Laughlin, 1970; Vaillant, 1992). Research examining the nature of defenses has shown them to be stable constructs, correlated with other significant mental health

constructs, and able to effectively distinguish among diagnostic groups (Vaillant, 1986; Bond, Paris & Zweig-Frank, 1994). Empirical assessment of defenses has primarily relied upon either self-report measures or observer-based tools. Self-report measures for adults, such as the Defense Style Questionnaire (Bond, Gardner, Christian & Sigal, 1983) and the Defense Mechanism Inventory (Glesar & Ihlilevich, 1969) rely on participants' report of their own responses and behaviors in common stressful situations. Few self and parent-report tools are available for assessment of children's defense measures (Araujo, Medic, Yasnovsky & Steiner, 2006; Laor, Wolmer & Cicchetti, 2001). A central concern in defense assessment is the limited capacity of self-report measures to capture a construct that is, by definition, employed automatically and unconsciously (Cramer, 1991; Vaillant, 1989). Given this limitation, the case has been made that observer-ratings constitute a more appropriate means for measuring defenses. A number of well-validated tools rely on observer-ratings of clinical vignettes and interviews and other narrative forms (Cramer, 1991; Vaillant, 1986; Perry & Cooper, 1989; Perry & Ianni, 1998).

The Defense Mechanisms Manual (DMM) (*see Appendix B*) (Cramer, 1991) is the most widely used of these tools, has been well-validated for use with children, and can be used with either clinical interviews or projective measures. The coding system examines the defense mechanisms of denial, projection and identification, and the bulk of the research has applied the manual to the TAT. Research using the DMM has demonstrated that use of defenses is meaningfully related to level of pathology, symptom distress and suicidality, as well as various demographic and cognitive factors (Cramer, 1988). Defense use has also been correlated to response to treatment and intervention effectiveness (Cramer, 1988).

Cramer proposes a developmental model of use of defenses whereby certain defenses are predominant during different periods of life (1991). All the “early” defenses may be present throughout life, yet with typical development the individual may depend less on primitive defenses that are not consistent with mature ego functions, such as reality testing and a sense of a differentiated self (Cramer, 1991). The use of a defense interferes with psychological well-being when it does not effectively decrease negative feelings or when it is used excessively rather than adapted flexibly to the situation. Early and less mature primary defenses have two essential qualities: they do not fully adhere to the reality principle and do not recognize the full separateness of others. (McWilliams, 2011). Thus, we see the common psychic structures that characterize both immature defenses and disturbed object relations. Less mature defenses, when used exclusively, pose limits because they prevent us from fully processing real life experiences. Thus, overreliance on early defenses does not allow the individual to recognize, make sense of and metabolize the range of human emotion and experience. This, in turn, tends to polarize object relations, leaving them less mature and hence more dependent on early all-or-none defenses.

Cramer’s research has explored the development in childhood of three main defenses, denial, projection and identification. Cross-sectional and longitudinal research findings support the idea that use of these defenses occurs in a developmental hierarchy (Cramer, 1997; Porcerelli, Thomas, Hibbard & Cogan, 1998). While the more primitive defenses may be present at times throughout the life span, key defenses are predominant during certain developmental stages. Advances in cognitive capacity further the ability to engage more complex defenses as less sophisticated defenses no longer function

effectively. Research on the developmental nature of this hierarchy of defenses has substantiated the hypothesis that denial is most present in early childhood, projection emerges as a predominant defense in middle childhood, and identification slowly reaches extensive use in adolescence (Cramer, 1997).

Within each main defense, there is a hierarchy of ways the defense can be employed ranging from the most primitive to the more mature manifestations (Cramer, 1991). Denial, which typically reaches its peak use in early childhood, occurs as the individual fails to see reality clearly. In its most basic form this consists of misperceptions and omissions of significant stimuli. More complex manifestations include negating and reversing events or perceiving unexpected goodness. The more mature use of denial maximizes positive stimuli at the expense of recognizing the negative. From an object relations perspective, one can envision how primitive denial and disturbances in object relations function together. For the individual whose relational experiences have not helped him process negative affect, denial of its very existence is a primary line of defense. As development continues, positive experiences must be heightened and negative experiences may be split off and ignored. Kernberg explains that the maintenance of this splitting process depends on regular use of what he describes as “bland denial” (1966).

Projection is characterized by a confusion of inner phenomena with external perception. This occurs in earlier forms by an unusual attribution of aggressive feelings or intentions to others. More mature forms of projections show a tendency towards magical thinking, or ominous interpretations of the external world. At its most complex the individual shows a vigilant attitude toward perceived harm, often concerned with

themes of entrapment and/or bizarre descriptions that serve to make sense of the disturbing perceptions. The employment of projective defenses coexists with the object relational experience that intensely felt negative affect cannot be internally located and thus often appears to be external and even supernatural in its source and scope.

Identification is generally considered to be a more complex defense than either denial or projection. The precipitate of identification in the early stages of undifferentiated infancy consists of an incorporation of all aspects of the other. In Cramer's model, early forms of identification entail emulating others' skills and characteristics. This evolves into an internalization of others' that results in self-regulatory skills, self-esteem and capacity to work. Higher forms of identification are characterized by a sense of role differentiation, empathy and morality. The evolution of more complex identification is consistent with an object relations perspective that early identifications gradually become more selective as the object relational world becomes increasingly differentiated in convergence with reality (Kernberg, 1966).

Examination of the development of object relations and the development of defenses elucidates how psychodynamic theory accounts for the common psychic processes that underlie these aspects of internal life. Research has demonstrated how that use of defenses and level of object relations are meaningfully related (Cramer & Blatt, 1988). Cramer et al. (1988) found significant correlations between MOA scores on the Rorschach and level of defense on the TAT among 90 psychiatric inpatients. The patients were divided into two categories based on whether personality difficulties were organized around issues of interpersonal relatedness (anaclitic) or self-definition and identity (introjective) (Blatt, 1974). As expected, for anaclitic patients malevolent MOA scores

were associated with use of denial. However, for introjective patients, malevolent scores were seen with greater use of identification. Cramer et al. hypothesized that introjective patients' use of identification demonstrated a developmentally primitive preoccupation with incorporation. The work of Cramer et al. establishes a precedent for the proposed dissertation's hypothesis that MOA assessment of object relations and DMM measure of defenses will be meaningfully related on the TAT.

### *TAT Assessment Research*

A central aim of the current study is to investigate the potential of the TAT to similarly provide a site for rich exploration of object relations functioning. I argue that the TAT's ubiquitous presence in psychological assessment and its qualities as a projective tool make it well-disposed for use with the MOA scale. Since its creation in the 1930s, the TAT (Morgan et al., 1935; Murray, 1943) has maintained its status as one of the most commonly used assessments among practicing clinical psychologists across a range of theoretical orientations (Archer, Buffington-Vollum, Stredny & Handel, 2006; Watkins, Campbell, Nieberding & Hallmark, 1995). Despite its widespread use, there is lack of consensus on systematic approaches to interpreting TAT material (Cramer, 1996; Teglassi, 2010). Previous attempts to employ objective scoring systems have been abandoned and a survey of doctoral study in the field indicates a fly by the "seat of the pants" approach to teaching TAT interpretation (Rossini et al., 1997, p. 395). From the psychodynamic perspective, there is a need for structured approaches that organize and evaluate TAT responses while preserving the "flavor and psychological significance of the stories" (Cramer, 1996 p. 18; Blatt et al., 2004).

Early use of the MOA shows that it can be adapted for and applied to verbal narratives similar to the TAT (Urist et al., 1982). Previous adaptations of object relations measure have been successful across instruments (Krohn & Mayman, 1974; Spear & Lapidus, 1981; Urist & Shill, 1982). The potential usefulness of the MOA for examining the TAT is also bolstered by evidence of reliability and convergent validity between object relations measures on the Rorschach and the TAT (Rosenberg, Blatt, Oxford, McHugo & Ford, 1994; Hibbard, Hibbard, Hilsenroth & Nash, 1995; Ackerman, Hilsenroth, Clemence, Weatherill & Fowler, 2001). A construct validity study examined concurrence between object relations levels as captured through different projective tools (Hibbard et al., 1995). The results showed that psychopathology was correlated to object relations level as measured by a scale applied to the TAT and another applied to the Rorschach, indicating that despite different modalities, both tools appear to assess the same construct. Ackerman et al. (2001) found evidence of convergent validity between the MOA scale and a TAT-based measure of object relations. Lexical analysis of TAT protocols showed more malevolent MOA scores to correlate with TAT content themes of hostility and aggression (Rosenberg et al., 1994)

It has been noted that the usefulness of the Rorschach as an assessment of object relations lies in its tendency to elicit representations of human figures (Blatt et al., 1983). Following this vein, because the TAT consists of representation of human interactions it offers fertile ground for object relational themes. Tuber's (2004) case study examining object relations on a Children's Apperception Test (CAT), provides a guide for application of MOA constructs to children's TAT material. Here Tuber describes the CAT's distinctive adeptness for exploring the "potential capacity for adaptive handling of

interpersonal and intrapsychic dilemmas” (p. 489, 2004).

Previous dissertation research has investigated the adaptation of the MOA scale for the TAT and used the same data set as the present dissertation. Katherine Eiges (2014) examined the role of the reciprocal interaction among object relations, Attention Deficit-Hyperactivity Disorder and Learning Disorder. This work constitutes the first attempt of systematic adaptation of MOA for the TAT (MOA-TAT) and shows convergent validity between the MOA summary scores for the Rorschach and the TAT. The research notes convergence between the scales and also points to some important distinctions. Across the TAT and Rorschach protocols Eiges found moderate to strong correlations for the summary scores and the scale-point distributions were similar between measures. Eiges found that children generated significantly more MOA responses on the TAT than on the Rorschach. In addition, there were more adaptive responses on the TAT. In particular, the TAT appears to pull for the MOA scale points that depict benign, neutral interactions. These findings are supported by literature showing that the Rorschach may elicit more pathological defenses (Tuber & Meehan, 2015). Eiges considers how MOA scores on both the TAT and Rorschach may draw on different facets of object relations. The TAT task “invites” narratives about interaction, in contrast to the perceptual demands of the Rorschach (Hibbard et al., 1995, p. 438). Use of the MOA scale for both projective tools provides more data points, thus giving a broader range of object relational functioning. More research is needed in order to better understand the relationship between the MOA for the Rorschach and the MOA-TAT and how they can complement each other to provide a fuller clinical picture of personality functioning. The present study is such an attempt at better understanding this relationship.

### *Summary*

The literature on the role of object relations and defenses in psychodynamic assessment of personality provides a basis for the current study's investigation of the adaptation of the MOA scale to the TAT. A primary aim of the study was to demonstrate concurrent validity between the DMM and MOA measures. This study contributes to the assessment literature by illuminating the relationship between children's defenses and object relations. In addition, the adapted MOA for the TAT provides a response to calls in the psychodynamic assessment literature for well-validated systematic approaches to TAT interpretation.

## **METHODS**

### *Participants*

The current study uses a community sample collected from February 2003 to July 2006 and consisting of 47 children from Upper Manhattan. The children were a subset of participants in a study of language and attention funded by the National Institute on Deafness and Other Communication Disorders (NIDCD) (Gomes, Wolfson & Halperin, 2007). The participants were referred by their schools for behavioral or reading problems. They were administered a neuropsychological battery of language, attention and intelligence tests, and projective assessments. Participants' TAT responses were examined in order to investigate the relationship between object relations and defenses.

In the current study, 47 children (32 male and 15 female) between ages 7 to 10 ( $M=8.42$ ;  $SD=.79$ ) were included. The sample was comprised of 21 African-American, 16 Latino, five Caucasian, and one Asian participant (with four additional participants who did not report ethnic and racial background). Ethnicity and race were determined by parent report. Socioeconomic status (SES), marital status and maternal education level were assessed through questionnaires. All children were fluent English speakers and attended English-speaking schools. Thirteen children were from bilingual households.

Children were excluded from the initial study if they had medical problems, including chronic medical or neurological illness, a history of neurological problems, tic disorder or received medication. The study participants were determined to have never carried a diagnosis of schizophrenia, major affective disorder, autism or pervasive developmental disorder. All children included in the study received scores of 80 or higher on either the Tests of Nonverbal Intelligence (TONI-3; Brown, Sherbenou, & Johnsen,

1997) or the Performance IQ of the Wechsler Abbreviated Scale of Intelligence (WASI; Wechsler, 1999). Children included in the study were determined to have normal or corrected vision, and normal hearing.

### *Measures*

*The Thematic Apperception Test.* The Thematic Apperception Test (TAT) (Murray, 1943) consists of a series of black and white illustrations on cards. The images depict ambiguous and emotionally evocative scenes of characters. At the start of testing respondents are prompted to answer five basic questions about each card; (1) what's going on in the picture, (2) what led up to the scene, (3) what will happen in the future, and (4) what the character(s) is (are) feeling and (5) thinking. In the current study, all participants were presented with the same eight cards: Cards 1, 2, 3BM, 4, 7GF, 8BM, 12M and 13B. The cards selected are quite commonly used in much TAT and clinical research and no hypotheses were generated regarding whether specific cards would pull for certain MOA responses more than other cards. Murray proposed that the TAT narratives would provide important information about personality and unconscious dynamics (1938). He envisioned that, during TAT administration, subjects unconsciously project their fantasies, experiences, needs, expectations and anxieties onto the ambiguous social situations portrayed on the cards.

While a number of systematic approaches to TAT interpretation, including Murray's own, have been designed TAT protocols are more commonly interpreted flexibly rather than scored (Rossini et al., 1997; Teglasi, 2010). However, there are a number of scoring systems that have been validated with the TAT, including the DMM described below (Jenkins, 2008; Teglasi, 2003; Westen, 1991).

*Defense Mechanisms Manual.* The Defense Mechanisms Manual (DMM) (Cramer, 1991) is the most commonly-used coding system for defense use on TAT responses (Porcerelli & Hibbard, 2004). Three common defenses—denial, projection and identification—are proposed to exist along a developmental continuum ranging from least to most adaptive/mature. Each defense is scored for frequency according to a series of set criteria. A total score is calculated based on total number of defenses used.

Within the three major defenses, seven scoring categories are described that cover the developmental continuum (*see Appendix B*). Ranging from most to least adaptive, denial scores consist of omissions of major details, misperceptions, reversals, negations and denial of reality. The two most adaptive denial scores include overly minimizing of negative or maximizing of negative, and the presence of unexpected goodness, optimism, positivity or gentleness. Within projection, the least adaptive categories are attribution of aggressive, hostile or normatively unusual feelings to characters or the addition of ominous figures, such as ghosts, animals, objects or qualities. Mid-level scores include magical thinking, concern for protection from external threat. The most adaptive two projection scores include themes of pursuit, entrapment and escape, or unusual and bizarre stories. The least adaptive identification scores consist of emulation of skills followed by emulation of characteristics. Mid-level identification scores are regulation of motives, self-esteem through affiliation and work, or delay of gratification. The higher level identification scores emphasize role differentiation and moralism.

*DMM Validity and Reliability.* The DMM has been used in a range of studies with children, adolescents, adults and psychiatric patients (Cramer, 1999). Sound reliability and validity have been found for the scale (Porcerelli et al., 2004). Cross-sectional and

longitudinal research confirms the developmental model proposed by the DMM (Cramer, 1997; Porcerelli, Thomas, Hibbard & Cogan, 1998). The scale has been particularly useful in distinguishing between diagnostic groups and measuring treatment effects (Cramer et al., 1988; Cramer, 1999). Protocols in the current study were rated by advanced clinical psychology doctoral students and an interclass correlation coefficient (ICC) was based on the scoring of 10 TAT protocols (20% of the data set).

*The Mutuality of Autonomy Scale.* The Mutuality of Autonomy Scale (MOA) developed by Urist (1977) consists of a seven-point ordinal scale that reflects object relations ranging from most to least adaptive (*see Appendix A*). The scale captures the developmental progression of separation-individuation and the increasing sense of dependence, control and malevolence that characterizes lack of autonomy. Score-able responses either explicitly state or imply a relationship between two animate and/or inanimate beings. A description of the components of the scoring system is described below, as elucidated by Coates and Tuber (1988).

The first two scale points are reserved for interactions where the subjects are differentiated, autonomous beings. Scores of 1 are the highest level of object relatedness and apply to interactions in which two beings are separate, autonomous and show mutual recognition of each other. For example, “Two girls dancing with each other” indicates reciprocal acknowledgement and involvement with another. In responses scored as 2, autonomous beings exist in parallel activity. Their autonomy is intact, but they are not necessarily engaged in a mutual way. “Two bears climbing up a mountain” is a common example of this type of response.

Scale points 3 and 4 incorporate Kohut's theory (1966) of dependent and mirroring object relationships that are characteristic of emerging lack of autonomy. Scores of 3 apply to interactions in which the self is dependent on another for its existence or integrity. Figures that are hanging, leaning or grabbing for external support are typical in responses scored as 3s. Scale point 4 captures relationships where autonomy is lost because the existence and stability of an object is tied to or dependent on an. In these responses, reflections, mirroring, imprints or shadows often convey that others are merely extensions of the self.

Scores of 5, 6, and 7 mark a shift towards the loss of capacity for separateness alongside increasingly malevolent relations, representing Kernberg's (1975) understanding that the expression of aggression is central to lack of autonomy. In responses scored as 5s there are themes of control, omnipotence, influence and threat that indicate how one's autonomy tends to be compromised by others. Scale point 6s are more clearly destructive, such that integrity is not only threatened but has been compromised through attack or bodily harm. These scores emphasize the imbalance between beings such that "only one person can win" (Urist manual, 1977), as in a response of "An animal killing his prey." Scores of 7 are reserved for psychotic-level interactions in which the destruction is total, overwhelming, enveloping or catastrophic and the individual is wholly powerless in the face of its power.

*MOA Validity and Reliability.* Since its initial application, the MOA has demonstrated sound validity as a measure of object relations (Urist, 1977). It is convergent with measures of psychopathology, diagnosis severity, can meaningfully distinguish between patient groups, and is a significant predictor of behavior (Ackerman

et al., 2000; Blatt et al., 1990; Coates et al., 1985; Fowler et al., 2005; Harder et al., 1980; Hibbard et al., 1995; Leifer et al., 1991; Tiedemann-Fuller, 2008; Tuber, 1983). It is consistently showed divergence with IQ (Blatt et al., 1990; Harder et al., 1984; Ryan et al., 1985; Tuber, 1989).

A study of 440 subjects examined convergent-divergent relationships between the MOA and other object relations criterion variables (Bombel et al., 2009). This work confirmed the construct validity of the MOA as a measure of object relations as well as pathology severity. Meta-analyses of studies using the MOA have found respectable effect sizes for correlating the MOA to other object relations phenomena (Fowler, Addelson & Clemence, 2006; as cited in Bombel et al., 2009; Graceffo, Mihura & Meyer, 2014). A meta-analysis investigating criterion validity found the MOA to be significantly related to theoretically relevant variables, such as behavioral markers, psychotherapy outcomes, level of functioning and observer-ratings of functioning (Monroe, Diener, Fowler, Sexton & Hilsenroth, 2013).

With revisions to the original coding guidelines, 80% interrater reliability was achieved among graduate students who had no prior familiarity with object relations theory (Holaday & Sparks, 2001). Bombel et al.'s meta-analysis (2009) shows similar high levels of interrater agreement. The current data set was coded by two advanced clinical psychology doctoral students who had previously obtained high interrater reliability with the MOA for the Rorschach. For the present study data, an interclass correlation coefficient (ICC) was calculated based on the scoring of twenty TAT protocols.

*Calculating and Summarizing MOA Data.* There are a number of standard indices for organization and interpretation of MOA scores provided in a given Rorschach protocol. This study will use several commonly used methods for calculating summary scores. The total number of responses per protocol (MOA-R) will be considered. This score may provide information about the extent to which the interpersonal realm is accessed by the individual and is an important part of their psychic life. The mean of the scores within a protocol (MOA-M) will be calculated. This mean score has been most frequently used as a method to examine the individual's usual interpersonal functioning (Fowler et al., 2005).

However, Tuber (1989) has pointed out that a mean score does not effectively differentiate between those with scores primarily in the mid-range and participants whose profile shows a greater range of scores. The markedly different object relations of any two such individuals would thus not be captured by a mean score alone. A meta-analysis of MOA studies (Bombel et al., 2009) suggests that the mean alone may not be the most accurate scale index for assessing object relations quality or level of pathology.

In order to better assess the range and mode in protocols, a number of procedures have been more useful (Fowler et al., 2005). The present research takes into account the single most adaptive score, Lowest Object Relations Score (LORS), and the single most disturbed score, Highest Object Relations Score (HORS). The presence of a 7, for example, speaks to the individual's vulnerability for psychotic processing at times of greatest stress. The presence of a 1 on a protocol, despite a high mean that shows a mode of less adaptive interpersonal functioning, may indicate the potential for benign object relations. Together, these scores give a sense of the range of functioning, which has been

found useful in previous research (Fowler et al, 2005). Graceffo et. al.'s (2014) meta-analysis demonstrates that summary scores which aggregate multiple data points are more strongly associated with relevant criteria than single scores.

The MOA-PATH has been cited as a particularly significant method for summarizing the data (Ackerman et al., 2000). This calculation is a sum of the number of scores of 5, 6 and 7 that occur on a protocol. Higher scores have shown to be indicative of interpersonal interactions marked by instability. Such individuals show hypervigilance and fear due to expectations of coercion, manipulation or harm from others (Fowler et al., 2005). In addition, the sum of the two most adaptive scores was considered, commonly known as the MOA-Health Index.

The current study considers the following summary scores:

1. MOA-R: Total number of score-able responses per protocol.
2. MOA-M: Mean score.
3. MOA-HI: The number of 1 and 2 responses.
4. MOA-PATH: The number of 5, 6, and 7 responses
5. HORS: Single most pathological score.
6. LORS: Single most adaptive score.

*Adapted MOA for the TAT (MOA-TAT).* A central aim of the proposed study is to investigate the adaptation of the MOA scale for use with the TAT. Initially, the MOA was applied to various sources of information—autobiographical narratives, therapist and staff ratings—establishing a strong precedent for the MOA's utility beyond Rorschach protocols (Urist, 1977; Urist et al., 1982). In general, object relations assessments have frequently been successfully adapted from one medium to another (Krohn & Mayman, 1974; Spear & Lapidus, 1981). The MOA-TAT adaptation will be used with the data set used in the proposed study. The sole previous research using the MOA-TAT adaptation found convergent validity between the MOA and the MOA adapted for use with the TAT

(Eiges, 2014). Major differences between the two scales in the sample studied showed more MOA scores on the TAT and more adaptive scores. Given these findings, it was expected that the MOA-TAT scores would show more convergence with defenses along the healthier side of the scale and have less data points showing least adaptive object representations.

In the adaptation of the MOA for the TAT, the aim was to follow the MOA scoring guidelines as much as possible. Furthermore, any changes and elucidations made to the MOA were consistent with the attempt to retain the theoretical intentions of the original scoring procedures. In general, the changes made follow from the fact that the Rorschach material consists of abstract forms while the TAT material concretely depicts humans in interaction. As a result, it is expected that responses capturing object relational paradigms will have some consistent differences across the two protocols. A working version of the MOA-TAT is included in the Appendix (*see Appendix C*) and describes the adaptation of the scale for use with the TAT.

In adapting the MOA scale points to the TAT a few common shifts in application of the scores are noted. First, more strict criteria are applied for scale point 1. Because the theme of human interaction is manifest on the TAT, the interactions described by the participant often require more elaboration that emphasizes *each* individual's acknowledgement of the other's autonomy. In addition, scale point 3 scores were used to apply to responses emphasizing longing for, reliance on, and need for others. On the TAT specifically, this occurs with themes of sickness, injury or dependence on community help in the form of doctors, police, etc. While scores of 4 on the Rorschach are frequently applied to responses about shadows or reflections, such themes are unusual on the TAT.

More common, however, are responses in which multiple characters share the same feelings, thoughts and behaviors, conveying the fusion and lack of self-differentiation that broadly characterizes scale point 4. Lastly, themes concerning neglect and abandonment are frequently seen on the TAT and are typically scored as 5s or 6s on the MOA-TAT, depending on the degree of malevolence and harm resulting from the interaction.

### *Procedures*

The NIDCD study participants were administered neuropsychological testing over the course of two days. Tests were administered in a small, quiet room. The TAT data was typically collected at the end of the second day of testing. Responses to the projective were both transcribed and audio-recorded, as confirmation of the written transcript. During testing, children's parents or guardians were interviewed and completed ratings scales and history forms. After testing completion and data compilation, participants' families received a written clinical report and feedback summarizing the results of the assessment.

### *Study Summary & Hypotheses*

This study investigates the relationship between children's defenses and object relations on TAT responses, as measured respectively by the DMM and MOA. It was expected that the MOA scores would be meaningfully related to DMM scores, providing evidence of the MOA scale's validity with TAT material. Findings from this work seek to highlight the value of adapting the MOA for use with the TAT, contributing to calls in the field for standardized, easily employable and reliable approaches to TAT interpretation. This contribution can provide rich applications for the TAT, one of today's

most commonly administered assessment tools. Elucidating the interactions between defenses and object relations allows for a deeper look into the child's phenomenological experiences. Such an understanding can be a vital for guiding and informing clinical diagnosis and treatment interventions.

Due to the limited research examining defenses and object relations together, general, exploratory hypotheses were proposed during the proposal phase of the dissertation. It was hypothesized that subjects with MOA scores reflecting the most disturbed object relations would also exhibit greater use of less adaptive and complex defenses. Most maladaptive MOA scores would be correlated with most use of denial, moderate use of projection and least use of identification. More specifically, it was expected that the MOA-PATH would be correlated with the least adaptive defenses on the DMM. Conversely, the adaptive MOA scores of 1 and 2 (MOA-HI) were hypothesized to be associated with a greater use of identification, moderate projection and least use of denial. During the coding of the data, more refined hypotheses took shape based on detailed examination of the relationship between defenses and object relations. These hypotheses are described in the *Results* section below.

## RESULTS

### *Introduction*

The following section presents the results of the statistical analysis. The data was analyzed to examine the relationship between scores from the DMM and scores from the MOA on children's TAT protocols. The preliminary analysis section describes the characteristics of the study's participants. This section reports demographic information and basic characteristic of the sample. In addition, this section addresses interrater reliability. The following portion of the data analysis is devoted to statistical analysis of the main study variables.

During the coding process, there was a rethinking of the more general and impressionistic hypotheses set forth in the proposal. In accordance with the previous hypotheses, identification was expected to be most strongly correlated with the most healthy object relations and negatively correlated with use of projection and denial. However, the author shifted the hypothesis regarding projection based on recognition of similarities in content between projection scores on the DMM and more pathological scores on the MOA. It was expected that more use of projection would be most strongly correlated with the least adaptive MOA responses.

### *Preliminary Analysis*

*Demographic Analysis.* Forty-seven participants were included in the study (*see Table 1*). The participants were children between the ages of 7 and 10 ( $M=8.42$ ;  $SD=.79$ ). The majority of the sample was male ( $N=32$ ; 67.4 %) and 32.6% of the sample was female ( $N=15$ ). Race and ethnicity were determined by parent report. The majority of the children were African-American (48.8%) and Latino/Hispanic (37.2%). The remaining

participants were Caucasian (11.5%) and Asian (2.3%) with four participants who did not provide information on race and ethnicity. All the participants were fluent in English and enrolled in English-only classrooms. Thirteen children (30.2%) were reported to live in bilingual households. The sample demonstrated Average intelligence with a Full-Scale IQ mean of 95.57, as assessed by the Wechsler Abbreviated Intelligence Scale (WASI). The scores ranged from Borderline to Very Superior. Intelligence scores showed no significant relationships with MOA-TAT scores or DMM scores.

**TABLE 1**  
*Demographic Characteristics of Participants*

|                        | All Participants*<br>(N=47) | Male<br>(n=32; 67.4%) | Female<br>(n=15; 32.6%) |
|------------------------|-----------------------------|-----------------------|-------------------------|
| Mean Age ( <i>SD</i> ) | 8.4 (.79)                   | 8.38 (.81)            | 8.51 (.77)              |
| <u>Race/Ethnicity</u>  |                             |                       |                         |
| African American       | 21 (48.8%)                  | 13 (30.2%)            | 8 (18.6%)               |
| Latino/Hispanic        | 16 (37.2%)                  | 10 (23.3%)            | 6 (14%)                 |
| Caucasian              | 5 (11.6%)                   | 5 (11.6%)             | 0 (0%)                  |
| Asian                  | 1 (2.3%)                    | 1 (2.3%)              | 0 (0%)                  |
| Bilingual              | 13 (30.2%)                  | 9 (20.9%)             | 4 (9.3%)                |

\*Four participants did not provide information regarding race/ethnicity

*Interrater Agreement.* TAT protocols were scored using the MOA-TAT by the author and an advanced doctoral student. The raters were blind to patient information and each other's scores. Twenty protocols were selected at random and analyzed for interrater agreement. Analysis used the overall correct classification formula (Kessel & Zimmerman, 1993), which examines the frequency of raters' agreement across the entire MOA scale, as opposed to analysis of a single or average score point. The raters first

established reliability on the MOA scale as originally applied to the Rorschach and achieved an intraclass correlation coefficient (ICC) of .89. Interrater agreement for the MOA-TAT was .86. These reliability levels are similar to those found in the MOA literature and indicate strong reliability potential for the scale when applied to the TAT.

The protocols were scored using the DMM by the same coders and with adherence to the manual. Conditions of blindness were maintained, as in the MOA-TAT coding, and interrater agreement was analyzed on 10 protocols (20% of the data) that were selected at random. Interrater agreement was found to be excellent (ICC=.96) for agreement at the level of the three main defenses. Analysis at the subtype level was adequate with an ICC of .78. This is consistent with reliability levels reported in the DMM literature.

*Main Analysis: Relationship between MOA-TAT & DMM Scales*

The DMM scores consist of the proportion of each defense type—denial, projection, identification—to total defenses used. The participants used denial most frequently (mean=.44), followed by use of projection (mean=.31) and least use of identification (mean=.24). These findings were marginally different than expected as the literature shows that non-clinical samples of children in elementary school show more use of projection than denial.

Six MOA summary scores were analyzed: MOA-R, MOA-M, MOA-HI, MOA-PATH, HORS, and LORS. Sixteen correlations were considered among these two sets of variables and the results are described below. Both DMM scores and MOA scores were normally distributed and Pearson Product Moment Correlation Coefficients ( $r$ ) were used to analyze the relationships between MOA summary scores and DMM summary scores.

Several of the hypotheses showed significant and expected results (*see Table 2*). Six of the analyses showed no significant findings. The discussion section will provide interpretation of the meaning of the findings and discuss the contributions of the study's results.

Analysis first examined the number of score-able responses provided by subjects. A large significant correlation was found between number of MOA responses and number of defenses used ( $r=.55$ ,  $p=.01$ ).

DMM scores of denial were examined in relationship to the MOA scores. On the MOA-PATH index, more disturbed object relations were strongly correlated with less use of denial ( $r=-.48$ ,  $p=.001$ ). The presence of more adaptive MOA scores was significantly and moderately correlated with low use of denial ( $r=-.31$ ,  $p=.03$ ). The indicator of the single most pathological score (HORS) was negatively and strongly correlated to use of denial ( $r=-.43$ ,  $p=.001$ ). These results were consistent with the proposed hypotheses. There was no significant relationship between the MOA-M scores and denial ( $r=-.20$ ,  $p=.16$ ). Additionally, the relationship between the LORS and denial yielded no significant results ( $r=.24$ ,  $p=.10$ ).

In the realm of projection, lower MOA-M scores were strongly correlated with use of projection ( $r=-.56$ ,  $p=.001$ ), as expected. High use of projection and more pathological MOA scores showed a strong, significant correlation ( $r=.63$ ,  $p=.001$ ). Similarly, the HORS index was significantly and robustly correlated to use of projection ( $r=.49$ ,  $p=.001$ ). Healthy object relations scores (MOA-HI) were not significantly associated with projection ( $r=-.02$ ,  $p=.84$ ). There was no significant correlation between the LORS and projection ( $r=.03$ ,  $p=.84$ ).

Lastly, identification use was correlated with the MOA summary scores. More adaptive MOA-M scores were moderately correlated with more use of identification ( $r=-.33, p=.02$ ). In addition, MOA-HI scores were correlated with use of identification ( $r=.44, p=.001$ ). Use of identification was not significantly associated with the MOA-PATH index ( $r=.04, p=.76$ ) or the HORS index ( $r=.04, p=.78$ ). The LORS index (lowest/most adaptive MOA score) was significantly and moderately correlated with *less* use of identification ( $r=-.35, p=.01$ ). This finding was disconfirming of the study's hypothesis.

**TABLE 2**

*DMM and MOA Correlations*

|          | Denial<br>r (p) | Projection<br>r (p) | Identification<br>r (p) | Total Defenses<br>r (p) |
|----------|-----------------|---------------------|-------------------------|-------------------------|
| MOA-R    | —               | —                   | —                       | .62 (.01)               |
| MOA-M    | -.20 (.16)      | .56 (.001)          | -.33 (.02)              | —                       |
| MOA-PATH | -.48 (.001)     | .63 (.001)          | -.04 (.76)              | —                       |
| MOA-HI   | -.31 (.03)      | -.02 (.84)          | .44 (.001)              | —                       |
| HORS     | -.43 (.001)     | .49 (.001)          | .04 (.78)               | —                       |
| LORS     | .24 (.10)       | .03 (.82)           | -.35 (.01)              | —                       |

## DISCUSSION

### *Introduction*

The discussion considers the study's results on defenses and object relations in depth. Next, it examines the secondary findings on the usefulness of the MOA as applied to the TAT and proposes future work to validate this scale. The discussion will address the limitations of the current research. These limitations inspire questions and directions for further inquiry. In considering the study's findings, the conclusions address clinical and theoretical implications of understanding the interaction between defenses and object relations. It is important to keep in mind that the MOA-TAT is in an early phase of validity and the results of this study are, therefore, exploratory in nature

### *Relationship between Defenses & Object Relations*

The study participants showed most use of denial, followed by use of projection and least use of identification. The literature on a non-clinical population shows that denial is more common than projection until age seven. At this point, as denial use decreases it is surpassed by use of projection as the primary defense (Cramer, 1997). Given this research, the children in the current sample show a slightly less mature pattern of defense use than expected for elementary school-age children. This may be due to the fact that the children in the study constitute a clinical population who were referred for behavioral and language difficulties. As a result, the participants may show slightly less mature development of their defenses than their peers.

The findings indicate that children with more MOA responses also showed more total defense use. This finding may demonstrate that children who were more verbal during the TAT task simply had more score-able responses within both scoring systems.

These children may have been more engaged with the task. The TAT may have been successful in eliciting unconscious processes and activating both defenses and object relational paradigms more readily to aid them with the task. Eiges's dissertation study (2014) considered some limited evidence that a lack of MOA responses may be an adaptive response. In this case, children who provide very few score-able responses may effectively repress pathology.

The results pertaining to use of denial will be examined first. Use of MOA 1s and 2s was moderately and significantly correlated with low use of denial. As expected, this indicates that children with healthy object relations do not heavily rely upon denial. These children's safe view of the world and relationships protects them from needing to use denial to defend against malevolent perceptions. Interestingly, children with more disturbed object relations also used denial less. In particular, a subjects' worst single score, the HORS indicator was negatively and strongly correlated to use of denial. The LORS scores did not show a significant correlation with use of denial.

These findings are consistent with a hypothesis that emerged during the coding stage of the dissertation. At that time, the author refined the initial hypothesis that high use of denial would correlate with more disturbed object relations. Rather, the coding process revealed that denial use appears to protect the subject from accessing more disturbing object relations. For example, a child who frequently approaches the TAT using denial may omit key features of the protocol, such as the gun in Card 8BM. The child does not acknowledge this disturbing feature, and as a result, will not display the aggressive or threatening fantasies that the gun evokes. In contrast, children with object relational pathology may frequently fail to use denial as way to protect themselves.

Inherent in this finding is the concept that denial can be an effective way to maintain health in the face of disturbing content, such as that presented by the TAT task. In particular, for elementary school-age children, use of denial may prevent preoccupation with negative stimuli. In some circumstances, denial following a traumatic event may function protectively and adaptively (Tuber, 2012). As we become older, use of denial continues to be healthy in many contexts, but cannot be relied upon as a main defensive stance. Cramer et al. (1988) demonstrate that denial use is associated with more malevolent MOA responses in an adult psychiatric population. Throughout development, denial becomes less effective at preventing pathological percepts from emerging. However, for the young children in the present study, the availability of denial appears to go hand-in-hand with the absence of disturbed object relations. Further results show that, in contrast, children who used projection more frequently were more vulnerable to disturbing object relations during the TAT task.

The results showed a strong association between the summary scores that indicate disturbing object relations and more use of projection. Participants with a lower mean MOA score were more likely to use projection. Similarly, increased use of projection and the single most pathological object relations score were significantly and robustly correlated. During the coding process, the author observed that many of the responses that were scored for projection were likely to receive more pathological object relations scores. These responses tended to have aggressive content that were scored for the projection categories pertaining to hostility or aggression, concern for protection from a threat, or apprehensiveness of death, injury or assault. On the MOA scale, these same responses warranted coding for the scale points indicating imbalance of power, threat,

harm or attack. From the point of view of psychodynamic theory, both projection and pathological object relations are rooted in difficulties integrating feelings of love and hate. The feelings of threat and aggression occur due to failure to distinguish between internal and external experiences of these powerful feelings.

Participants who were effective at managing the powerful negative feelings that are elicited by the TAT were initially hypothesized to have moderate use of projection and adaptive object relations scores. However, neither healthy object relations scores nor the most adaptive single object relations score showed significant relationships with use of projection. Thus, it seems that children with object relations pathology are vulnerable to use of projection. In contrast, children with healthy object relations may be able to use projection in an adaptive, age-appropriate way on the TAT task. This would involve acknowledging the aggressive, ominous or threatening themes in the cards without devolving into fantasies of destruction and exhibiting loss of reality testing. In fact, given the age group of the participants, projection is expected to be the most frequently used defense. Children's use of projection that does not involve disturbed object relations may represent a developmentally-appropriate response to the TAT.

In regards to use of identification, children who used this defense also showed more adaptive mean MOA scores. In addition, the presence of healthy object relations scores was strongly correlated with identification. These findings are consistent with the theoretical understanding that healthy object relations and capacity to use complex defenses go hand-in-hand. When faced with the disturbing content on the TAT, these children are able to cope through accessing themes of self-regulation, affiliation, work, delay of goals, morality and justice that are crucial aspects of identification. This requires

a basic trust in oneself, family and community that is established with healthy object relations.

The single most adaptive MOA score was significantly correlated with *less* use of identification. This finding was unexpected and disconfirming of the hypothesis. There were no significant findings for the relationship between least adaptive object relations score and identification. Additionally, use of identification was not significantly associated with use of 5s, 6s and 7s. It is unclear why these findings were inconsistent with the hypotheses. This may be a function of the low total number of identification scores given the age range of the sample. In addition, the section on the study's limitations may provide insight into the lack of findings.

In general, the results of the study provide a picture of how defenses and object relations may work together for elementary school-age children. It appears that both low use of denial and frequent use of identification are significantly related to adaptive object relations. However, one unexpected finding showed that less use of identification was significantly correlated to the most adaptive object relations score. Projection is not clearly linked with healthy object relations. The more adaptive one's object relations are the more likely one is to use sophisticated defenses and to eschew the more primitive defense of denial. However, at one's worst, in terms of object relations, projection, rather than denial is used more frequently as an approach to the TAT. Projection and pathological object relations appear to complement each other. In contrast, for children who use denial, object relational pathology is not elicited by the TAT. These findings raise further questions about the interaction between denial and object relations pathology. Because denial may be a fairly developmentally-appropriate response for

children ages 7 to 10, this prompts further inquiry into how to distinguish between healthy and maladaptive denial in children.

Some of the literature on defenses suggests applying caution in making inferences about the role of denial. This is particularly important because Cramer's findings have consistently shown denial to be associated with least adaptive mental health functioning (Cramer, 1996). A longitudinal study examined the TATs of 6 to 10 year-old children who were at-risk for psychiatric illness due to family history (Shabad, Worland, Lander & Dietrich, 1979). Children with major disturbances at follow-up had used "massive" denial and magical thinking on the TAT. In contrast, children who did not have subsequent psychiatric hospitalizations were more likely to perceive negative events and emotions on the projective task. These findings indicate that there may be certain uses of denial among young children that are not adaptive and that, in fact, mask disturbances that are likely to emerge later.

Within Cramer's defenses coding system, statements of negation, such as doubts about what the picture represents and comments like "I don't understand the picture" result in denial scores. In these cases, a child's inability to engage with the task due to reliance on denial would likely result in very few MOA scores as well. While Eiges (2014) conceptualized these children as responding to the task adaptively, this interpretation should be considered with caution given Cramer's findings on use of denial. The question is raised of whether denial is effectively functioning to mask underlying disturbed object relations for some young children. At a certain age, if new defenses do not develop, this denial may no longer function to hold the individual together and pathology will present itself. Potentially, the nature of this pathology may be

different from children whose pathology is conveyed through their disturbed object relations and dependence on projection during the TAT task.

One way to account for the range of meanings of the uses of denial is to more closely examine the level of response within the DMM coding system. A close analysis of the denial subtypes was outside the scope of the present study, but it is important to consider the developmental hierarchy within the coding category of denial. A hypothesis that emerges from the present study is that children who use more sophisticated subtypes of denial demonstrate an adaptive approach to the TAT, while those who depend on more primitive denial may show more difficulties with the task. Cramer refers to developmentally-advanced denial as “Pollyanna-ish denial”, which consists of maximizing the positive and minimizing the negative (Cramer, 1991). On the other hand, the less adaptive and more primitive use of denial is exemplified by basic misperceptions and distortions in reality testing. Previous research with adults has shown that psychiatric patients used more primitive denial on the DMM scale (subtypes 1 through 5) than non-psychiatric controls, who demonstrated more use of “Pollyanna-ish” denial (subtypes 6 and 7) (Hibbard, Farmer, Wells, Difillipo, Barry, Korman & Sloan, 1994). In regards to children, further examination would be required to determine patterns in subtypes of denial used and whether use of more primitive denial is associated with other indicators of pathology.

In sum, the study’s findings provide evidence that level of defenses and object relations in children’s TATs are meaningfully and significantly related. This research shows that identification use is strongly correlated with adaptive object relations and negatively correlated with pathological object relations. Projection and pathological

object relations appear to emerge together on the TAT while more primitive use of denial is negatively correlated to both maladaptive and adaptive object relations. Understanding constellations of object relations and defense use allows for richer interpretations of TAT data and contributes to psychodynamic conceptions of personality development.

### *MOA-TAT Adaptation*

The secondary aim of the present research was to apply a standardized attempt to adapt the MOA to TAT and to investigate the validity of this measure. Level of object relations is an important aspect of mental health and accessible assessment tools for object relations can inform research, diagnosis and clinical interventions. The MOA is a valuable resource for object relations assessment due to its ability to capture unconscious phenomena and its well-established validity with the use of the Rorschach with children. The present study demonstrates strong interrater reliability for the MOA-TAT that is similar to levels of reliability found with the Rorschach. It proves to be an efficient and easily-learned coding system. Using the MOA with the TAT in addition to the Rorschach, provides a larger and, potentially, broader sample of data points.

The differences seen in the MOA as applied to the TAT and the Rorschach clarify some of the distinctions between these two measures and how they complement each other. The findings may help us understand the specific psychological demands of these two projective tasks. The MOA for the TAT shows more sensitivity to more adaptive scores, providing a picture of an individual's capacity for adaptive functioning. The TAT appears to elicit more frequent object relational responses and more representations of benign, parallel interactions (Eiges, 2014). These findings may indicate that the demands

of the Rorschach on unconscious processes are more de-stabilizing than the TAT and evoke more disturbing responses.

In clinical environments the TAT and Rorschach are commonly administered together. As such, applying the MOA to both tools allows for a richer understanding of object relations. For subjects, particularly children, who may only produce a few MOA responses on the Rorschach, the MOA as applied to the TAT may provide a more comprehensive clinical picture. A broader range of object relational functioning can contribute to a holistic view of the individual and their phenomenological experiences. This is a central goal of projectives within psychological evaluations (Tuber, 1989).

#### *Study Limitations & Future Directions*

The findings from the present research must be considered in light of the study's limitations. Firstly, the application of the MOA to the TAT is in an early, exploratory phase as this is one of three research projects that make use of this adaptation (Eiges, 2014; Martinez, 2016). As a result, the current findings are speculative and must be considered cautiously. Extensive future investigation is required to establish the validity of this scale and more fully examine its psychometric properties. The raters in the study created the MOA-TAT manual (Eiges, 2014) concurrently with their rating of the current data set. Future research and clinical application will be required to assess the utility of the manual, its interrater reliability and other aspects of its validity. It will be useful to investigate convergent validity between the MOA-TAT with other measures of object relations. In particular, this may be achieved by examining the Social Cognition and Object Relations Scale (SCORS), which is a frequently used and well-validated tool for object relations on the TAT (Westen, D., Lohr, N. E., Silk, K., Kerber, K. & Goodrich,

S., 1985). In contrast to the MOA-TAT, the SCORS consists of a more elaborate scoring system with multiple dimensions relating to social cognition in addition to object relations. In contrast, the MOA-TAT contributes a highly efficient scoring system and its excellent interrater agreement makes it easily employed for clinical and research purposes. Further research into the MOA-TAT will need to be conducted with a larger variety of cards than the 8 TAT cards used in the present study. This work will help determine how the specific cards elicit different object relational paradigms.

In regards to the sample used in the study, there are a number of limiting factors. The moderately small sample size in this research reduces the statistical power. The study participants do not represent a normal distribution in terms of demographic features, such as race, ethnicity and gender. The participants are from an urban environment and largely belong to ethnic minority groups with low socio-economic status. These factors should be considered for how they may limit generalizability of the findings to different demographic groups. Because the participants were referred specifically for language and attention problems they represent a limited clinical population. Further research should examine a broader range of clinical presentations, as well as non-clinical samples in order to better understand variations in the relationship between object relations and defenses. In addition, a sample with a broader age range is required to more fully investigate defenses and object relations. The current sample is limited to middle school-age children who are expected to show more use of projection and less frequent use of denial, based on previous research using the DMM. Further research is needed to understand whether this was an anomaly or whether children with language or attentional delays, or other clinical presentations, also use less mature defenses.

Because the DMM is based on a developmental model, different interactions between object relations and defenses should occur at each developmental stage. We can speculate as to how object relations will align with younger children, who use denial more frequently or adolescents, who use identification more readily. Further research is indicated to explore how the denial interacts with object relational paradigms during development. The current findings raise numerous questions about the role of adaptive denial among young children. Closer examination is required to investigate the hypothesis that there is a distinction between healthy, age-appropriate denial and pathological denial that may mask underlying disturbances in object relations.

Lastly, the author served as a rater for the scales and both raters were aware of the study's purpose and preliminary hypotheses. There is the possibility of bias in the direction of the study's hypotheses. The coders were blind to participant information and to the scores across the two measures. All efforts were made to maintain objectivity.

### *Conclusions*

The findings point to clear interactions between defense use and object relations in children's performance on the TAT. The findings provide evidence for the psychodynamic theory of personality development and point to the potential for further inquiry into projective assessment of personality. The findings in the current research would be greatly supplemented by similar research that can access larger samples and achieve more robust statistical power. The MOA-TAT should be examined with more diverse samples, in terms of clinical presentation, age, gender and other demographic variables. In particular, further examination of the convergence between defenses and object relations will require a sample with a broader age range.

More examination of these psychodynamic constructs can provide understanding of which constellations of defenses and object relations are adaptive and which indicate psychological distress. Such findings have implications for research, clinical diagnosis and treatment. They can provide a picture of how object relations may affect what defenses are used. In addition, defense use will influence which object relational paradigms are expressed during the TAT task.

The current study provides some insight into the myriad ways that children can tackle the TAT task. The findings shed light on the specific demands that the TAT places on psychological processes. Children's approaches will shift based on the child's age and level of distress at the time of evaluation. This demonstrates the many complex ways that humans can manage and cope with negative affect. Tuber (2012) describes how our ability to successfully navigate emotional stress depends on our ability to apply a defensive strategy that is appropriate for the circumstances. The TAT illustrates the various ways that object relational backgrounds and defensive approaches can function together in response to emotional challenges.

The adaptation of the MOA for the TAT proves to be a rich source of information for clinicians and researchers. In clinical settings, attention to level of object relations and uses of defenses will help determine what therapeutic approaches will be most effective. More work is needed to understand the convergence and differences between the MOA for the Rorschach and the MOA as applied to the TAT. This will guide understanding of the optimal use of the scales in complementary ways. The research up to this point demonstrates that using the MOA and the MOA-TAT together provides more score-able responses. This is particularly useful for looking at children's projectives, where there

may be limited information for the assessment of object relations. The addition of MOA-TAT scores appears to enhance our view of the child's capacity for more adaptive relational functioning. As a result, the MOA-TAT when considered in conjunction with the Rorschach MOA data provides a more expansive view of the child's phenomenological experience.

## APPENDIX A

### *Urist's Mutuality of Autonomy Scale: Scoring Guidelines* (Coates & Tuber, 1988)

#### **1**

highest level of object relatedness  
separate autonomous, but aware  
interaction/extra elaboration  
solid individuality  
awareness of the other and interacting with other  
“each other” is often helpful in scoring this point

#### **2**

parallel behavior/parallel play  
no stated emphasis or highlighting of mutuality  
autonomy is intact  
no recognition or awareness of the other person  
healthy, neurotic  
“two people bending down”

#### **3**

emerging loss of autonomy  
need for another figure to permit a sense of structural cohesion  
one figure leaning on the other  
“grabbing” / “clinging”  
notion of autonomy is compromised  
objects do not stand on their own two feet  
autonomy precariously bound to availability of an other

#### **4**

loss of autonomy  
Kohutian concept—any kind of mirroring response/use of selfobject  
one if figure is seen as the reflection of imprint of the other  
stability of an object exists only insofar as it is an extension of another  
at best only one solid being is present  
narcissistic issues are pivotal

#### **5, 6, 7**

not only loss of capacity for separateness but also increasing malevolence of one figure toward another; final three points refer to borderline or psychotic modes of experiencing others; reflect experience of object relations where autonomy of the self I under siege; scores speak to Kernberg's concepts of aggression and destruction

#### **5**

malevolent control  
themes of influence, control, casting spells

severe imbalance in mutuality of relations between two figures  
one figure threatening the other  
“a bat searching for its prey”  
autonomy of one being will be compromised by another

## 6

imbalance is cast in decidedly destructive terms  
more primitive imbalance— physically attacking the other  
integrity of one being is destroyed  
parasitic relationships  
gain by one results in diminution of destruction of another  
only one person can win  
women rarely have 6's

## 7

connection to psychosis  
relationships characterized by overpowering, enveloping force  
swallowed, devoured, overwhelmed by forces beyond any control  
destructive element is larger than life  
destructiveness so widespread that there is a sense of catastrophe  
rampant aggression with inchoate form/diffuse  
attached to pure C's or pure m's  
reserved for responses in which malevolence of aggression is stated in a human, grossly,  
overwhelming terms

## APPENDIX B

### *Defense Mechanisms Manual: Scoring Categories for Defense Mechanisms (Cramer, 1996)*

#### Denial

1. Omission of major characters or objects.
2. Misperception.
3. Reversal.
4. Negation.
5. Denial of reality.
6. Overly maximizing the positive of minimizing the negative.
7. Unexpected goodness, optimism, positiveness, gentleness.

#### Projection

1. Attribution of aggressive or hostile feelings, emotions, or intentions to a character of other feelings, emotions or intentions that normatively unusual.
2. Addition of ominous people, ghosts, animals, objects, or qualities.
3. Magical or circumstantial thinking.
4. Concern for protections from external threat.
5. Apprehensiveness of death, injury, or assault.
6. Themes of pursuit, entrapment, and escape.
7. Bizarre or very unusual story or theme.

#### Identification

1. Emulation of skills.
2. Emulation of characteristics.
3. Regulation of motives and behaviors.
4. Self-esteem through affiliation.
5. Work; delay of gratification.
6. Role differentiation.
7. Moralism.

## APPENDIX C

### *Mutuality of Autonomy Scale for the Thematic Apperception Test (MOA-TAT) Coding Manual*

Used with permission, the present manual was extended and extrapolated to the Thematic Apperception Test (TAT) by Dr. Katherine Eiges, Ph.D. in collaboration with Dr. Steve Tuber, Ph.D. The descriptions for each of the scale points are based on the original Mutuality of Autonomy scale developed Dr. Jeffery Urist, Ph.D. (1977; Urist & Shill, 1982) that was further elaborated upon by Dr. Tuber (Coates & Tuber, 1988).

**Note:** The relationships between characters can be explicitly referenced between characters on a card or between a character and an implied object (e.g. “the man shot the woman” and “the woman was shot” would be assigned the same score even though a second character is not explicitly mentioned).

#### **Scale Point 1: Reciprocity-Mutuality; Collaboration-Cooperation**

Characters are engaged in some relationship or activity in which they are together and involved with each other in such a way that conveys a reciprocal acknowledgement of their respective individuality. The narrative contains explicit or implicit reference to the fact that the characters are separate, autonomous, and involved with each other in a way that recognizes or expresses a sense of mutuality in the relationship.

Scale point 1 is the most adaptive response and, as such, should be scored conservatively (Coates & Tuber, 1988). The unique contributions of each individual character to the mutual interaction need to be emphasized. These responses reveal healthy relationships and show attainment of separation-individuation, cooperation, or reciprocity, with the suggestion of a high degree of autonomous functioning, mutual relatedness, and awareness of the other.

For example (Card 1): *“This boy looks like he’s tired. I think he’s tired because... it looks like he’s looking at the instrument and he’s tired of playing it and he probably got into a fight with one of his family members because they want him to play but he don’t. [He’s thinking] what should I do? My parents want me to play the instrument and I don’t. What should I do? Should I tell them how I feel or should I just go along and play? He’s feeling confused and upset. Confused that he wants to listen to the parents but he’s upset because he don’t want to play the instrument. [In the future] I think he and his parents are going to work out a different arrangement where he can play another instrument or do whatever else he wants to do.”*

As illustrated in the example above, the affective quality of the interaction does not need to be positively valenced in order to receive a 1. Though there is discord and conflict in the interaction, the child and parent are ascribed separate mental states that are elaborated upon and integrated into an interaction that, in this case, is ultimately collaborative. Such a resolution, however, is not necessarily intrinsic to a Level 1 response. The description of a highly charged verbal battle among equals that remains unresolved could be assigned a 1, despite significant disagreement, competition, or confrontation. It is only when the

confrontation involves an imbalanced attack on one character by another that a more pathological score of 5, 6, or 7 is given.

The following is another example (13B): *“This kid is supposed to be inside and all that he wants to do is go and play outside. So he’s sitting inside his house, at the door of his house looking outside. But he’s not allowed to go. So he’s thinking that he’s mad at his dad who’s not letting him go. And what led up to this is that he got in trouble for doing something so he can’t go outside. And what’s going to happen is that he’s gonna run, he’s gonna go outside even though he’s not allowed to and he’s gonna get in even more trouble. So he’s feeling mad. And his dad is like, his dad doesn’t like punishing him but he does, he has to so his dad is upset at the same time.”*

Here, the affective quality of the interaction is not positive; however, father and son are depicted in an elaborate and differentiated way. There is recognition that the other character is a separate being with his/her own experience, and their emotional states bear some influence on the other character’s psychological state and/or actions.

### **Scale Point 2: Parallel Activity-Simple Interaction**

Characters are engaged together in some relationship or parallel activity, but there is no stated emphasis or highlighting of mutuality. A response is scored 2 when the integrity of the objects is maintained and there is also no indication that this dimension is compromised in any way within the relationship. Despite the lack of direct emphasis on mutuality, the response still conveys potential for mutuality in the relationship. For example (Card 4): *“These are two people in a movie, an actor and an actress, and they’re playing a dramatic scene in a 1950’s movie.”* Here, the characters are portrayed as interacting with one another, but without any emphasis on each character’s autonomy and/or unique contribution to the interaction.

Characters described in parallel activity who are not engaged or aware of one another would not receive a 2. For example (Card 2): *“I see a girl getting ready for school... I see a person, a man who can probably ride the horse. I see a man down there, a man all the way down there and next to him I saw a horse... The girl is probably thinking that she doesn’t want to go to school. Um maybe the person right here, the guy right here, is probably thinking that he wants to ride the horse.”* This description would not receive any score, for there is no recognition of the other characters, and they are not engaged or interacting in any sort of way.

The degree to which the unique contribution of each individual to the mutual interaction is highlighted is what distinguishes a score of 1 from 2. For example, the following response would receive a 2 (Card 1): *“There was a boy. He was playing the violin. He got bored of the violin. The people think he needs a break. The people feel bad for him.”* Here, the respondent describes the peoples’ awareness of the boy and aspects of his psychological state, while the boy is completely unaware of the other characters. There is no stated emphasis on the mutuality or reciprocal acknowledgement between the characters. If the boy were described in a way that conveys some recognition of the other characters (e.g. *“The boy could tell by the looks of their faces that they saw his frustration”*), the response would then receive a 1.

Finally, it is important to note that aggressive content in responses may also be scored a two if there is no power imbalance between the characters. For example, two people simply described as fighting would be scored a 2. Only if one figure has an unequal, controlling, or imbalanced advantage over the other is it then given a higher score.

### **Scale Point 3: Anacletic-Dependent**

Level 3 responses reveal a clearly dependent relationship in which the maintenance of self is highly related to sustenance from another person, suggesting difficulties in the cohesion of the self and the reliance on an external person for internal stability. Characters are portrayed as dependent on another, or without an internal sense of capacity to sustain themselves. The notion of autonomy is compromised and there is a stated or implicit sense that the characters cannot function independently without external support. For example (Card 18GF): *“Maybe um the lady, no wait, it's a child holding a lady. Um maybe the lady, probably the child's mother, is probably sick or dying. Maybe the lady collapsed in the stairs so she's helping her.”*

Themes of illness and weakness in the context of being helped and/or taken care of by another person are common on the TAT, and often assigned a 3. For example, (Card 12M): *“This person got sick and I guess this is the father...trying to help him feel better. What led up to this was a virus. In the future they're going to make sure that if something happens to their son, or he gets a cold or something, to treat him with the right medicine so it doesn't get worse.”* Stories that incorporate doctors, ambulances, police, or other characters in traditional helping roles, in such a way that is integral to the survival or wellbeing of an otherwise helpless character are also typical of level 3 responses.

The highlighted absence of an external object, without whom the character cannot manage on his or her own or function independently, is also indicative of a level 3 response. For example, on Card 1: *“What's going on now is the boy is thinking about playing the violin. What happened right before this, he was doing his homework and he thought about music class and now he's trying he don't know how to use the violin. He got stuck. He's studying the violin because they are going to have a test. He is feeling that he wants to play the violin SO BAD but he don't have nobody to teach him.”* Here, the emphasis on the boy's utter helplessness in the absence of a person he relies upon on highlights his dependency in such a central way that warrants a score of 3.

### **Scale Point 4: Reflection-Mirroring**

The described relationship conveys a sense that the definition or stability of one character necessarily requires the other because it is merely an extension or reflection of the self. Some degree of fusion or lack of self-other differentiation between characters is central here. Characters are described as mirror-objects or are ascribed the exact same thoughts, feelings, and behaviors. For example, (Card 4): *“This looks like a portrait of a husband and wife...they are having a good time. They're thinking I'm happy I'm here with you and I love you and stuff like that. Next I think they're about to go outside so they might go out and have some dinner.”* Here, the individual experiences of the characters are merged in such a way that diminishes their respective sense of individuality.

While Scale Point 3 implies that autonomy is precariously bound to the availability of another person, the two characters are still regarded as separate beings with their own individual psychological states. Scale Point 4, on the other hand, fails to differentiate each character's experience from the other. For example (Card 2): *“These people sort of look shocked. So um, I think what happened before was this wasn't here and they just came there because -- I see this guy -- he's like looking, and like um, he looks shocked. They might be feeling shocked. Like surprised.”* Here, characters lack any individual autonomy, and are depicted in such a way that their experiences merge into one undifferentiated affective response.

### **Scale Point 5: Control-Coercion**

The nature of the relationship between characters is characterized by a theme of malevolent control of one character by another. Level 5 describes intent, threat, or minor damage, and is assigned to responses depicting manipulation or coercion, one-sided fighting, or hurtful influence. Such themes portray a striking imbalance in the mutuality of relations between characters. One or more of the characters may be seen as helpless, while at the same time others are omnipotent and controlling. For example (Card 12M): *He is hypnotizing him. He is like when you hear someone snap their fingers, you will go on a rampage and say I like cheese. He went into his room while he was sleeping and probably hypnotized him. Like every time someone snaps their fingers or something he is going to be like, I like cheese!! He is feeling evil and he is feeling happy because he gets to eat cheese a lot, and he is thinking cheese, cheese, cheese.* In this example, coercion, manipulation, and control are expressed through the relationship of the hypnotizer being fully in control of his subject. This clear imbalance of power warrants a score of 5.

Level 5 is also scored when there is equal but malevolent threat or intent, such as two characters trying to kill each other, because this reflects the effort of one or both to dominate and destroy one another. Responses such as, *people fighting*, are usually scored as scale point 2 responses because there is no distinct reference to a loss of intactness of either character. However, *“two people are fighting and bleeding from their forceful blows to one another,”* would qualify as a scale point 5 because there is clear and distinct indication that either one or both of the characters have sustained some damage or violation of intactness, although not severe.

Another way for a story to qualify for a score of “5” is when a character is described as taking something from or doing something to another character without overtly damaging the controlled or used character. Similarly, aggression can occur without explicit description of the destruction to the victim. For example (Card 3BM): *She’s in the bathroom putting her face in the toilet – toilet seat. Before she was getting picked on by kids. She’s feeling sad. She’s thinking she’s gonna hit the kids back and pick on them too.* Here there is a clear imbalance in power in the interaction, as reflected by themes of control and domination without the “victim’s” body integrity being *severely* damaged.

Themes of loss and abandonment are commonly expressed on the TAT, and often reflect some level of relational imbalance and distress. Depictions of characters who are in a conventional caregiving role (e.g. parent, significant other) and abandon their responsibility to care for a dependent in such a way that threatens the dependent’s safety and well-being warrants a score of 5. Threats to leave or abandon the dependent, or emotional neglect of the dependent during intense distress are also worthy of a 5. For example (Card 13): *“The boy is mad. He’s sitting in a farm – he lives in a farm. Before his mom kicked him out of her house. He’s thinking about going to the foster home and feeling mad.”* Here, the mother’s clear violation of her responsibility to care for her son leaves him in an abandoned state, thereby imposing significant threat to his general wellbeing and safety.

### **6: Severe Imbalance-Destruction (threat carried out and destruction)**

The characters are described as engaging in activity that is clearly destructive or parasitic, and that compromises the autonomy or integrity of the victim. Not only is there a severe imbalance in the mutuality of relations between characters, but the imbalance is cast in *decidedly destructive* terms (Coates & Tuber, 1988). Two characters simply fighting is

not 'destructive' in terms of the individuality of the characters, whereas one character being tortured or strangled by another is considered to reflect a serious attack on the autonomy of the victim. Of note, characters depicted as dying of a natural death, decaying, or aging would not receive a score because there is no malevolent other.

Malevolent one-sided aggression and domination is the major difference between responses receiving a scale point of 5 versus 6. Not only is there a severe imbalance in the mutuality of relations between characters in a "6" response; the imbalance involves a distinct perpetrator that caused damage or death. This contrasts a level 7 responses, for which annihilation results from an undefined, overwhelming force.

A malevolent character can be implied if only one damaged or destroyed character is depicted on the card. If someone is described as having been shot, it can be assumed that he or she was shot by a malevolent other. For example (Card 3BM): *"I see a lady crying on a bench. I see keys on the floor. Wait that key looks like, never mind, that key looks like a weapon. Yeah that's a weapon. Maybe she got hurt or shot.... probably inside a building. Maybe she's feeling hurt and probably furious cause it might hurt. Maybe she's wondering why her. It looks like a church because it looks like a church bench. Next maybe she'll try to get up but probably fall."* Even though this response does not explicitly reference a shooter, the woman was shot and harmed by a powerful and destructive character, which warrants a 6.

Depictions of relationships in which flagrant themes of abandonment, abuse, or severe neglect occur within the context of a caregiving relationship, leaving the dependent character in an extremely helpless, defenseless, and/or precarious state are assigned a score of 6. For example (13B): *That kid is alone by himself. He thinks that he's a lonely kid and he's very, very small compared to the door... And then I think he's feeling kind of sad that he's small, and he has no shoes, and he doesn't have enough money to afford them. I think, before he probably, his family probably was not home and he was the only one. When he left for a few minutes, probably someone took stuff from his house. And now, his family got mad at him when they came back, and they told him to sit outside in the sizzling, burning hot sun. And then, and then next, the family might punish him for two years for letting him do that.* Here, the severe neglect and abuse depicted towards this utterly helpless child deserves a score of 6.

### **7: Envelopment-Incorporation**

Level 7 is assigned to pathological responses in which a character is or has been contaminated, dominated, overwhelmed, or destroyed by catastrophically malevolent, engulfing, or inhuman forces. Characters are seen as swallowed up, devoured, or generally overwhelmed by *"forces completely beyond their control"* (Urist, 1977). Explosions, fires, bombs, hurricanes, destructive forces of nature, alien invasions, warfare, etc. may be referenced, and characters are usually seen as destroyed, dead, mangled, evaporated or burned as a result. For example (Card 7BM): *"This guy, he doesn't have any clothes on and he's tied up by a rope. He's hanging by a rope and there's all kinds of stuff in that hole that's gonna try and eat him up and he let go. He's dead and all the animals down -there eat him and snakes go up the rope and that man they ate all of him. He got ate up, all or him and he don't got no socks on and no shirt on and no pants and all the animals ate him up all in pieces and stuff and that man was dead forever!"* Here, the level of parasitic envelopment and evisceration described is a perfect example of a Level 7 response.

## REFERENCES

- Ackerman, S. J., Hilsenroth, M. J., Clemence, A. J., Weatherill, R., & Fowler, J. C. (2000). The effects of social cognition and object representation on psychotherapy continuation. *Bulletin of the Menninger Clinic*.
- Ackerman, S. J., Hilsenroth, M. J., Clemence, A. J., Weatherill, R., & Fowler, J. C. (2001). Convergent validity of rorschach and TAT scales of object relations. *Journal of Personality Assessment*, 77(2), 295-306.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Appelbaum, S.A. (1977). *Anatomy of change*. New York: Plenum Press.
- Araujo, K. B., Medic, S., Yasnovsky, J., & Steiner, H. (2006). Assessing defense structure in school-age children using the Response Evaluation Measure-71-Youth version (REM-Y-71). *Child Psychiatry and Human Development*, 36, 427-436.
- Archer, R. P., Buffington-Vollum, J. K., Stredny, R. V., & Handel, R. W. (2006). A survey of psychological test use patterns among forensic psychologists. *Journal of Personality Assessment*, 87(1), 84-94.
- Blatt, S. J. (1974). Levels of object representation in anaclitic and introjective depression. *Psychoanalytic Study of the Child*, 29, 107-157.
- Blatt, S. J., & Lerner, H. (1983). The psychological assessment of object representation. *Journal of Personality Assessment*, 47(1), 7-28.
- Blatt, S. J., & Shahar, G. (2004). Psychoanalysis—With whom, for what, and how? comparisons with psychotherapy. *Journal of the American Psychoanalytic Association*, 52(2), 393-447.
- Blatt, S. J., Tuber, S. B., & Auerbach, J. S. (1990). Representation of interpersonal interactions on the rorschach and level of psychopathology. *Journal of Personality Assessment*, 54(3-4), 711-728.
- Bombel, G., Mihura, J. L., & Meyer, G. J. (2009). An examination of the construct validity of the rorschach mutuality of autonomy (MOA) scale. *Journal of Personality Assessment*, 91(3), 227-237.
- Bond, M. P., Gardner, S. T., Christian, J., & Sigal, J. J. (1983). Empirical study of self-rated defense styles. *Archives of General Psychiatry*, 40, 333-338.

- Bond, M., Paris, J., & Zweig-Frank, H. (1994). Defense styles and borderline personality disorder. *Journal of Personality Disorders* 8(1), 28-31.
- Bram, A. D. & Yalof, J. (2015). Quantifying complexity: Personality assessment and its relationship with psychoanalysis. *Psychoanalytic Inquiry*, 34, 74-97.
- Brown, L., Sherbenou, R. J., & Johnsen, S. K. (1997). *Test of Nonverbal Intelligence-Third Edition*. Austin, TX: Pro-Ed.
- Coates, S., & Tuber, S. B. (1988). The representation of object relations in the Rorschachs of extremely feminine boys. In H. D. Lerner & P. M. Lerner (Eds.), *Primitive mental states and the Rorschach*. (pp. 647-664). Madison, CT US: International Universities Press, Inc.
- Cook, B., Blatt, S., & Ford, R. (1995). The prediction of therapeutic response to long-term intensive treatment of seriously disturbed young adult inpatients. *Psychotherapy Research*, 5, 218–230.
- Cooper, J. R. (2003). *The Establishment of Children's Nonpatient Data for the Mutuality of Autonomy Scale* (Doctoral dissertation, Alliant International University, California School of Professional Psychology, Fresno).
- Cramer, P. (1991). *The development of defense mechanisms: Theory, research, and assessment*. Springer-Verlag Publishing.
- Cramer, P. (1997). Evidence for change in children's use of defense mechanisms. *Journal of Personality*, 65(2), 233-247.
- Cramer, P. (1999). Future directions for the thematic apperception test. *Journal of Personality Assessment*, 72(1), 74-92.
- Cramer, P. (2004). *Storytelling, narrative, and the thematic apperception test*. Guilford Press.
- Cramer, P., Blatt, S. J., & Ford, R. Q. (1988). Defense mechanisms in the anaclitic and introjective personality configuration. *Journal of Consulting and Clinical Psychology*, 56(4), 610.
- Eiges, K. (2015). *The reciprocal relationship among object relations, attention deficit hyperactivity disorder and specific language impairments in school-aged children*. (Doctoral dissertation, City College of New York, New York).
- Erdberg, P. (2012). Bridging the gap: Quantitative rorschach approaches to psychodynamic constructs. *Rorschachiana*, 33(2), 100-107.
- Exner, J.E. (1969). *The rorschach systems*. New York, NY: Grune & Stratton.

- Freud, A. (1936). *The ego and the mechanisms of defense*. New York: International Universities Press.
- Fairbairn, W.D. (1952). *Psychoanalytic Studies of the Personality*. London: Tavistock Publications Limited, 1-297
- Fowler, J. C., Addelson, B., & Clemence, A. J. (2006, March). *A metaanalysis of the Mutuality of Autonomy Scale*. Paper presented at the Annual Meeting of the Society for Personality Assessment, Washington, DC.
- Fowler, J. C., Ackerman, S. J., Spearburg, S., Bailey, A., Blagys, M., & Conklin, A. C. (2004). Personality and symptom change in treatment-refractory inpatients: Evaluation of the phase model of change using rorschach, TAT, and DSM-IV axis V. *Journal of Personality Assessment*, 83(3), 306-322.
- Fowler, J. C., & Erdberg, P. (2005). The mutuality of autonomy scale: An implicit measure of object relations for the rorschach inkblot method. *South African Rorschach Journal*, 2(2), 3-10.
- Fowler, J. C., Hilsenroth, M. J., & Nolan, E. (2000). Exploring the inner world of self-mutilating borderline patients: A rorschach investigation. *Bulletin of the Menninger Clinic*.
- Gieser, L., & Stein, M. I. (1999). *A view to the future*. American Psychological Association.
- Gleser, G. C., & Ihilevich, D. (1969). An objective instrument for measuring defense mechanisms. *Journal of Consulting and Clinical Psychology*, 33, 51-60.
- Goldberg, E. H. (1987). *The relationship between severity of depression and developmental levels of functioning in girls ages 8 to 16*. (Order No. 8805998, Seton Hall University, School of Education).
- Goddard, R., & Tuber, S. (1989). Boyhood separation anxiety disorder: thought disorder and object relations psychopathology as manifested in Rorschach imagery. *Journal of Personality Assessment*, 53, 239–252.
- Gomes, H., Wolfson, V., & Halperin, J. M. (2007). Is there a selective relationship between language functioning and auditory attention in children? *Journal of Clinical and Experimental Neuropsychology*, 29(6), 660-668. doi: 10.1080/13803390600920455
- Graceffo, R. A., Mihura, J. L., & Meyer, G. J. (2014). A meta-analysis of an implicit measure of personality functioning: The Mutuality of Autonomy Scale. *Journal of Personality Assessment*, (ahead-of-print), 1-15.

- Gunderson, J. G., & Lyons-Ruth, K. (2008). BPD's interpersonal hypersensitivity phenotype: a gene-environment-developmental model. *Journal of Personality Disorders, 22*(1), 22.
- Harder, D.W., Greenwald, D. F., Wechsler, S., & Ritzler, B. A. (1984). The Urist Rorschach Mutuality of Autonomy Scale as an indicator of psychopathology. *Journal of Clinical Psychology, 40*, 1078–1083.
- Herman, J. L. (1992). *Trauma and recovery*. New York: Basic Books.
- Hibbard, S., Farmer, L., Wells, C., Difillipo, E., Barry, W., Korman, R., & Sloan, P. (1994). Validation of Cramer's Defense Mechanism Manual for the TAT. *Journal of Personality Assessment, 63*, 197-210.
- Hibbard, S., Hilsenroth, M. J., Hibbard, J. K., & Nash, M. R. (1995). A validity study of two projective object representations measures. *Psychological Assessment, 7*(4), 432.
- Hibbard, S., Mitchell, D., & Porcerelli, J. (2001). Internal consistency of the object relations and social cognition scales for the thematic apperception test. *Journal of Personality Assessment, 77*(3), 408-419.
- Hilsenroth, M. & Charnas, J. (2007). *Training Manual for Rorschach Interrater Reliability (2nd ed.)*. Unpublished Manuscript, The Derner Institute of Advanced Psychological Studies, Adelphi University, Garden City, NY.
- Hilsenroth, M. J., Handler, L., Toman, K. M., & Padawer, J. R. (1995). Rorschach and MMPI-2 indices of early psychotherapy termination. *Journal of consulting and clinical psychology, 63*(6), 956.
- Holaday, M., & Sparks, C. L. (2001). Revised guidelines for Urist's mutuality of autonomy scale (MOA). *Assessment, 8*(2), 145-154.
- Holt, R. R. (1968). *Diagnostic Psychological Testing*. New York: International Universities Press.
- Horner, M. S., & Diamond, D. (1996). Object relations development and psychotherapy dropout in borderline outpatients. *Psychoanalytic Psychology, 13*(2), 205.
- Huprich, S. K., & Greenberg, R. P. (2003). Advances in the assessment of object relations in the 1990s. *Clinical Psychology Review, 23*(5), 665-698.
- Jenkins, S. R. (2008). Teaching how to learn reliable scoring. In S. R. Jenkins (Ed.), *A handbook of clinical scoring systems for thematic apperceptive techniques*. (pp. 39-66). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

- Kernberg, O. (1966). Structural derivatives of object relationships. *The International Journal of Psychoanalysis*, 47:236-252.
- Kernberg, O. (1967). Borderline personality organization. *Journal of the American Psychoanalytic Association*, 15(3), 641-685.
- Kernberg, O. (1975). *Borderline conditions and pathological narcissism*. Lanham, MD: Jason Aronson.
- Kernberg, O. F. (2001). Object relations, affects, and drives: Toward a new synthesis. *Psychoanalytic Inquiry*, 21(5), 604-619.
- Kessel, J. B., & Zimmerman, M. (1993). Reporting errors in studies of the diagnostic performance of self-administered questionnaires: Extent of the problem, recommendations for standardized presentation of results, and implications for the peer review process. *Psychological Assessment*(5), 395–399.
- Klein, M. (1946). Notes on some schizoid mechanisms. *The International Journal of Psychoanalysis*.
- Klein, M. (1957). Envy & gratitude. *Psyche*, 11(5), 241.
- Klopfer, B. & Kelly, D. (1944). *The rorschach technique*. Yonkers-on-Hudson, NY: World Books.
- Kohut, H. (1966). Forms and transformations of narcissism. *Journal of the American Psychoanalytic Association*,
- Kohut, H. (1971). *The analysis of the self: A systematic approach to the psychoanalytic treatment of narcissistic personality disorders*. University of Chicago Press.
- Krohn, A., & Mayman, M. (1974). Object representations in dreams and projective tests. *Bulletin of the Menninger Clinic*, 38(5), 445-466.
- Laor, N. Wolmer, L., & Cicchetti, D. V. (2001). The comprehensive assessment of defense style: measuring defense mechanisms in children and adolescents. *The Journal of Nervous and Mental Disease*, 189 (6), 360-368.
- Laughlin, H.P. (1970). *The ego and its defenses*. New York: Jason Aronson.
- Leichsenring, F. (2004). Quality of depressive experiences in borderline personality disorders: Differences between patients with borderline personality disorder and patients with higher levels of personality organization. *Bulletin of the Menninger Clinic*, 68, 9–22.

- Leifer, M., Shapiro, J. P., Martone, M. W., & Kassem, L. (1991). Rorschach assessment of psychological functioning in sexually abused girls. *Journal of Personality Assessment*, 56, 14–28.
- Martinez, J. (2016). *My mother needs me! Is it possible to stay connected while being my own person? The object relations of the latina “dutiful daughter”*. (Doctoral dissertation, City College of New York, New York).
- Mayman, M. (1967). Object-representations and object-relationships in Rorschach responses. *Journal of Projective Techniques and Personality Assessment*, 31(4), 17-24.
- McWilliams, N. (2011). *Psychoanalytic Diagnosis*, 2<sup>nd</sup> Ed. New York, NY: The Guilford Press.
- Meyer, G. J., & Archer, R. P. (2001). The hard science of Rorschach research: What do we know and where do we go?. *Psychological Assessment*, 13(4), 486.
- Meyer, G.J., Viglione, D.J., Mihura, J.L., Erard, R.E. & Erdberg, P. (2011). Rorschach performance assessment system: Administration, coding, interpretation, and technical manual. Toledo, OH: Rorschach Performance Assessment System, LLC.
- Meyer, J. R., & Tuber, S. (1989). Intrapsychic and behavioral correlates of the phenomenon of imaginary companions in young children. *Psychoanalytic Psychology*, 6(2), 151.
- Monroe J., Diener, M., Fowler, J., Sexton, J., Hilsenroth M. (2013). Criterion validity of the Rorschach Mutuality of Autonomy (MOA) scale: A meta-analytic review. *Psychoanalytic Psychology*, 30(4):535-566.
- Morgan, C. D., & Murray, H. A. (1935). A method for investigating fantasies: The Thematic Apperception Test. *Archives of neurology and psychiatry*, 34(2), 289.
- Murray, H. A. (1938). *Explorations in personality*. New York: Oxford University Press.
- Murray, H. A. (1943). *Thematic Apperception Test manual*. Cambridge, MA: Harvard University Press.
- PDM Task Force. (2006). *Psychodynamic Diagnostic Manual*. Silver Spring, MD: Alliance of Psychoanalytic Organizations.
- Perry, J. C., & Cooper, S. H. (1989). An empirical study of defense mechanisms: I. Clinical interview and life vignette ratings. *Archives of General Psychiatry*, 46, 444-452.

- Perry, J. C. & Ianni, F. F. (1998). Observer-rated measures of defense mechanisms. *Journal of Personality, 66* (6), 993-1024.
- Porcelli, P., Giromini, L., Parolin, L., Pineda, J. A., & Viglione, D. J. (2013). Mirroring Activity in the Brain and Movement Determinant in the Rorschach Test. *Journal of personality assessment, 95*(5), 444-456.
- Porcerelli, J. H., & Hibbard, S. (2004). Projective assessment of defense mechanisms. *Comprehensive Handbook of Psychological Assessment, 2*, 466-475.
- Porcerelli, J. H., Shahar, G., Blatt, S. J., Ford, R. Q., Mezza, J. A., & Greenlee, L. M. (2006). Social cognition and object relations scale: Convergent validity and changes following intensive inpatient treatment. *Personality and Individual Differences, 41*(3), 407-417.
- Porcerelli, J. H., Thomas, S., Hibbard, S., & Cogan, R. (1998). Defense mechanisms development in children, adolescents, and late adolescents. *Journal of Personality Assessment, 71*(3), 411-420.
- Piotrowski, Z.A. (1977). The movement response. In M.A. Rickers-Ovsiankina (Ed.), *Rorschach psychology* (2<sup>nd</sup> ed., pp 189-227). Huntington, NY: Krieger.
- Rapaport, D., Schafer, R., Gill, M. M., & Holt, R. R. (1968). *Diagnostic psychological testing*. Intl Universities Pr Inc.
- Rorschach, H. (1949). *Psychodiagnostics, a Diagnostic Test Based on Perception: Including Rorschach's Paper: The Application of the Form Interpretation Test* (Vol. 1). Huber.
- Rosenberg, S. D., Blatt, S. J., Oxman, T. E., McHugo, G. J., & Ford, R. Q. (1994). Assessment of object relatedness through a lexical content analysis of the TAT. *Journal of Personality Assessment, 63*(2), 345-362.
- Rossini, E. D., & Moretti, R. J. (1997). Thematic Apperception Test (TAT) interpretation: Practice recommendations from a survey of clinical psychology doctoral programs accredited by the American Psychological Association. *Professional Psychology: Research and Practice, 28*(4), 393.
- Ryan, R. M., Avery, R. R., & Grolnick, W. S. (1985). A Rorschach assessment of children's mutuality of autonomy. *Journal of Personality Assessment, 49*(1), 6-12.
- Schore, A. (2010). Relational trauma and the developing right brain: The neurobiology of broken attachment bonds. In T. Baradon (Ed.), *Relational trauma in infancy: Psychoanalytic, attachment, and neuropsychological contributions to parent–infant psychotherapy* (pp. 19– 47). New York, NY: Routledge/Taylor & Francis.

- Shabad, P., Worland, J., Lander, H. & Dietrich, D. (1979). A retrospective analysis of the TATs of children at risk who subsequently broke down. *Child Psychiatry and Human Development*, 10, 49-59.
- Shedler, J. (2010). The efficacy of psychodynamic psychotherapy. *American Psychologist*, 65(2), 98.
- Siever, L. J., & Weinstein, L. N. (2009). The neurobiology of personality disorders: implications for psychoanalysis. *Journal of the American Psychoanalytic Association*, 57(2), 361-398.
- Spear, W. E., & Lapidus, L. B. (1981). Qualitative differences in manifest object representations: Implications for a multidimensional model of psychological functioning. *Journal of Abnormal Psychology*, 90(2), 157-167.
- Spear, W. E., & Sugarman, A. (1984). Dimensions of internalized object relations in borderline and schizophrenic patients. *Psychoanalytic Psychology*, 1(2), 113. Stricker, Headley.
- Teglasi, H. (1993). *Clinical use of storytelling: Emphasizing the TAT with children and adolescents*. Needham Heights, MA US: Allyn & Bacon.
- Teglasi, H. (2010). *Essentials of TAT and other storytelling assessments*. Michigan: Wiley.
- Thomas, T. (1987). *A Rorschach investigation of borderline and attention deficit disorder children*. Paper presented at the mid-winter meeting of the Society for Personality Assessment, San Francisco.
- Tiedemann-Fuller, P. M. (2008). *A descriptive Rorschach study of children who have experienced chronic complex abuse*. (Doctoral dissertation, Pacifica Graduate Institute, California).
- Tramantano, G., Javier, R. A., & Colon, M. (2003). Discriminating among subgroups of borderline personality disorder: An assessment of object representations. *The American Journal of Psychoanalysis*, 63(2), 149-175.
- Tuber, S. (1992). Empirical and clinical assessments of children's object relations and object representations. *Journal of Personality Assessment*, 58(1), 179-197.
- Tuber, S. (1983). Children's rorschach scores as predictors of later adjustment. *Journal of Consulting and Clinical Psychology*, 51(3), 379.

- Tuber, S. (1989). Children's rorschach object representations: Findings for a nonclinical sample. *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 1(2), 146.
- Tuber, S. (2000). Projective testing as a post-hoc predictor of change in psychoanalysis: The case of Jim. In *The Psychoanalytic Study of Lives over Time*, ed. J. Cohen & B. Cohler. New York: Academic Press, 283-308.
- Tuber, S. (2004). Projective Testing as a Heuristic “Snapshot” of Themes in Child and Adult Psychoanalysis. *Journal of Infant, Child and Adolescent Psychotherapy*, 3:486--508.
- Tuber, S. (2010). *Understanding personality through projective testing*. Jason Aronson.
- Tuber, S., & Coates, S. (1985). Interpersonal phenomena in the rorschachs of extremely feminine boys. *Psychoanalytic Psychology*, 2(3), 251.
- Tuber, S., & Coates, S. (1989). Indices of psychopathology in the Rorschachs of boys with severe gender identity disorder: A comparison with normal control subjects. *Journal of personality assessment*, 53(1), 100-112.
- Tuber, S., & Meehan, K. B. (2015). Projective Measures of personality/psychopathology *Encyclopedia of Clinical Psychology*.
- Urist, J. (1977). The Rorschach test and the assessment of object relations. *Journal of Personality Assessment*, 41, 3-9.
- Urist, J., & Shill, M. (1982). Validity of the Rorschach Mutuality of Autonomy Scale: A replication using excerpted responses. *Journal of Personality Assessment*, 46(5), 450-454.
- Vaillant, G.E. (Ed.). (1992). *Ego mechanisms of defense: A guide for clinicians and researchers*. Washington, DC: American Psychiatric Association.
- Vaillant, G. E., Bond, M., & Vaillant, C. O. (1986). An empirically validated hierarchy of defense mechanisms. *Archives of General Psychiatry*, 43, 786-794.
- Viglione, D. J., & Hilsenroth, M. J. (2001). The Rorschach: Facts, fictions, and future. *Psychological Assessment*, 13(4), 452.
- Wachtel, P. L. (1993). *Therapeutic communication: Principles and effective practice*. New York: Guilford Press.
- Watkins, C. E., Campbell, V. L., Nieberding, R., & Hallmark, R. (1995). Contemporary practice of psychological assessment by clinical psychologists. *Professional Psychology: Research and Practice*, 26(1), 54.

- Wechsler, D. (1999). *Wechsler Abbreviated Scale of Intelligence*. New York, NY: The Psychological Corporation: Harcourt Brace & Company.
- Westen, D. (1991). Clinical assessment of object relations using the TAT. *Journal of Personality Assessment*, 56, 56–74.
- Westen, D., Lohr, N. E., Silk, K., Kerber, K., & Goodrich, S. (1985). *Social Cognition and Object Relations Scale (SCORS): Manual for Coding TAT Data*. Unpublished Manuscript. University of Michigan. Ann Arbor, MI.
- Winnicott, D. W. (1960). Ego distortion in terms of true and false self. *The Maturation Processes and the Facilitating Environment*, 1(1965), 140-152.