

Unemployed and Poor in New York: The Impact of Object Relations, Mentalization and  
Psychopathology on Job Outcome

by

Emily M. Bly

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This manuscript has been read and accepted by the Graduate Faculty  
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Date

\_\_\_\_\_  
Arietta Slade, Ph.D.  
Chair of Examining Committee

\_\_\_\_\_  
Date

\_\_\_\_\_  
Maureen O'Connor, Ph.D.  
Executive Officer, Psychology

\_\_\_\_\_  
Elliot L. Jurist, Ph.D.

\_\_\_\_\_  
Steven B. Tuber, Ph.D.

\_\_\_\_\_  
A. Jordan Wright, Ph.D.

\_\_\_\_\_  
Peter Fraenkel, Ph.D.  
Supervisory Committee

THE CITY UNIVERSITY OF NEW YORK

## Abstract

UNEMPLOYED AND POOR IN NEW YORK: THE IMPACT OF OBJECT RELATIONS,  
MENTALIZATION AND PSYCHOPATHOLOGY ON JOB OUTCOME

by

Emily M. Bly

Advisor: Professor Arietta Slade

This study examined the relationships between the quality of internal object representations of self and other (OR), the capacity for reflective functioning (RF) and the presence of Axis II psychopathology and their respective and combined impact on the ability of unemployed, low-income individuals to complete job readiness training, and to obtain and retain employment. Given the intertwining nature of these constructs, it was expected that correlations would exist between OR, RF and Axis II psychopathology and that these constructs would also be related to job outcome, such that those with low OR and RF or those with Axis II psychopathology would experience greater difficulty in completing job training, let alone obtaining and maintaining employment.

This research study posed additional research questions to examine the extent to which each of these variables would account for the variance in job outcome. It also sought to investigate the extent to which the predicted relationship between OR and job outcome would be moderated or mediated by Axis II pathology or the degree of RF present, such that an individual with significant psychopathology or low RF capacity would be expected to have poor job outcome regardless of OR scores. Similarly, it examined the question of whether the proposed

relationship between Axis II pathology and job outcome would be moderated or mediated by the degree of RF present, such that those with a more developed capacity for RF would have better job outcome despite the presence of Axis II pathology.

Results partially supported the study's main hypotheses in that RF and Axis II pathology were not only found to be related but also to significantly predict job outcome. Moreover, it was determined that in those cases where participants with Axis II diagnoses were able to obtain jobs, their ability to obtain the job was entirely attributable to the presence of relatively higher levels of RF. This finding suggests that the presence of even a moderate capacity to consider and to reflect upon the mental states of self and other confers an advantage on those with Axis II diagnoses in the pursuit of gaining employment. OR findings were less robust although one of the subscales of OR, Complexity of Representations, was found to be significantly associated with RF in the predicted direction. These results are discussed in relation to implications for the design of programs and interventions to assist unemployed and underserved populations.

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humorist. In our challenging and rewarding work together at The HOPE Program, I have had the privilege of laughing and crying with him. I am profoundly grateful for his ability to make the most overwhelming tasks seem possible and it is his implementation of this skill that is largely responsible for the methodological design of this study.

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## **CHAPTER ONE - INTRODUCTION**

### **Job Readiness and the Interpersonal Domain:**

It is widely recognized that a broad array of interpersonal skills -- notably the ability to get along with others, to communicate effectively, to adapt to new situations, to be open to negotiation and to work as part of a team --- are essential to getting and keeping a job (Overtoom, 2000; Carnevale, Gainer, & Meltzer 1990; O'Neil, Allred, & Baker, 1997; Halperin, 1998; Bailey, 1997). This study is grounded in the assumption that the development of these skills, and thus job-readiness, is related to the quality of an individual's object relations, as well as his or her capacity for mentalization. These developmental and dynamic factors allow an individual to take the perspective of the other, whose mind he views as separate from his own. They also enable him to adjust his or her behavior according to subtle cues in the behavior of the other, to regulate affect at times of interpersonal stress, and to more accurately interpret the actions of those around him. This study is derived from the understanding that when these capacities are impaired, as they are likely to be in individuals who have experienced trauma, or who are coping with the sequelae, concomitants or precursors of social and economic disadvantage, namely substance abuse, domestic violence, childcare needs, limited education, and mental illness (Dworsky & Courtney, 2007; Danziger & Seefeldt, 2002; Siegel & Abbott, 2007), the potential for economic self-sufficiency is threatened in ways that are potentially catastrophic.

### **Theoretical Background:**

In clinical and developmental theory and research, internal representations of self and other (object relations), underlie the kinds of interpersonal skills valuable on the job, insofar as they form the basis for a person's ability to process, regulate and manage emotions as well as to

identify and understand the emotional and thought processes of others in ways that help to guide behavior. From an object relations perspective, representational models formed through early relationships with caregivers, determine the level of maturity and quality of interpersonal relationships to which an individual is predisposed. Thus, a person's experience of others reflects the quality and differentiation of his or her internal representations. Persons with relatively benign internal representations of others will fare better compared to those whose internal representations of others are unstable or distorted.

In the course of development, an individual's internal representational model is thought to inform and give rise to the individual's capacity for reflective functioning. The term, reflective functioning (RF), refers to an overt and measurable manifestation, in narrative, of an individual's mentalizing capacity. The construct of mentalization, introduced over 10 years ago by a team of psychoanalytically oriented researchers, can be understood narrowly as "the capacity to understand one's own and others' behavior in terms of underlying mental states and intentions", and more broadly as a "crucial human capacity that is intrinsic to affect regulation and productive social relationships" (Slade, 2005, p. 269). These constructs have had an enormous impact on developmental theory and clinical practice in the years following their original inception.

Personality disorder pathology, located on Axis II of the multi-axial diagnostic system of the Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> Edition, Text Revision (DSM-IV-TR), is characterized by behavioral patterns that are, by definition, "inflexible and pervasive across a broad range of personal and social situations" leading to "clinically significant distress or impairment in social, occupational, or other important areas of functioning" (American Psychiatric Association, 2000, p. 686). Individuals with these diagnoses can present a

disproportionate social burden due to extensive and repeated use of various mental health resources, the chronicity and negative interpersonal impact of their symptoms, and increased likelihood of co-morbid Axis-I disorders (Bender et al., 2001; Gunderson et al., 2000; Skodol et al., 2002). Research indicates that personality disordered individuals are more likely than individuals without personality disorder diagnoses to have global functioning impairment including difficulties in their interpersonal life as well as in their employment history (Skodol et al., 2002).

### **The Present Study:**

This study will examine the relationship between object relations, mentalization, Axis II pathology and job outcome in a population of unemployed, low-income, and disadvantaged adults. The individuals participating in this research attend the HOPE Program (HOPE), an intensive job-readiness training program located in Brooklyn, NY. The primary function of the program is to assist unemployed, low-income adults in preparing for and obtaining employment.

Like so many job readiness programs across the country, HOPE focuses its research on the substantial barriers to employment faced by this population. In addition to the obvious barrier represented by the substance abuse histories common to over half of the HOPE population, other mental health issues have been found to represent an even more formidable barrier to employment (HOPE, 2006). Similarly, issues related to “performance and behavior” account for 36% of HOPE’s drop out rate, whereas drug and alcohol abuse relapse accounts for only 12%. HOPE’s mental health team are frequently asked to intervene in issues related to “mental health” and “performance and behavior” of the sort implicated in HOPE’s attrition rate. In our experience working with HOPE clients, whose histories are most often traumatic and whose lives are almost without exception overwhelmingly chaotic, these interventions are almost

exclusively triggered by interpersonal struggles in the classroom either with teachers or other students (seemingly due to difficulty in perspective taking, affect regulation and, as a result, misinterpretation of others' words and actions). In our work with HOPE clients, we have come to understand that issues related to “mental health” and “performance and behavior” are played out in the interpersonal domain in ways that negatively impact their capacity to navigate important social relationships. Our experience has led us to conclude that it is precisely these issues that underlie the struggles HOPE clients face in finding and retaining a job or even completing job training.

Across the country, job readiness training programs designed to prepare individuals living in extreme poverty for entry into the workforce have traditionally been focused on basic skills and educational credentialing as gateways to employability (Relave, 2001). However, large scale research assessing the effectiveness of “welfare to work” programs nationwide, found that, while there was significant improvement in job outcome overall, “only a minority of program group members experienced stable employment” over five years with 60 to 80 percent of program group members being “unemployed for at least one quarter during the fifth year”, an outcome which was only slightly better than that of control group members in the same year (Hamilton, 2002).

The wealth of data indicating an increased value placed by employers on the so-called “soft skills” such as communication skills, interpersonal skills, adaptability skills, teamwork and negotiation (Overtoom, 2007; Carnevale et al., 1990; O’Neil et al., 1997; Halperin, 1998; Bailey, 1997), has generally been applied towards preparation of high school and college graduates for entry into the workforce, whereas research examining job readiness amongst disadvantaged communities, such as those receiving public assistance, has tended to focus on barriers to

employment such as substance abuse, domestic violence, childcare needs, limited education, mental illness and transportation issues (Dworsky & Courtney, 2007; Danziger & Seefeldt, 2002; Siegel & Abbott, 2007). Despite some evidence to suggest that poor job retention among poor inner city residents might be related to resentment or misunderstanding of “lines of authority and responsibility in the workplace” (Berg, Olson & Conrad, 1991), there has been little ongoing research conducted as to the impact of core personal competencies on job acquisition and job retention for the unemployed urban poor. It is not a leap to imagine that the types of barriers described above that so often exist for this population have profound implications for the “soft skills” so valued by employers and might be both indicative and precipitants of a myriad of interpersonal difficulties. These problems in relating to others may well be implicated in the challenges of job acquisition and job retention that are faced by this population.

In the course of conducting interviews with HOPE clients, I have been repeatedly struck by the prevalence in the narratives of trauma histories, self-reported difficulties with anger management and chronic separation from family members for both legal and financial reasons. Most of the clients are in some kind of transitional or subsidized housing and their home lives are often chaotic and unpredictable. Those living in drug treatment communities struggle to navigate complicated power dynamics and spend significant time in “encounter groups” which serve as forums for residents to “vent” their anger at one another and to hear and be heard by other community members. Anger management and impulse control issues are so prevalent in these communities that residents are taught to “hold their bellies” and to “walk away” from confrontation. Similarly, HOPE clients not living in therapeutic communities are overwhelmingly reporting histories fraught with impulsive and aggressive behavior some of which have resulted in incarceration, loss of employment or separation from family. It has

become tremendously clear to the mental health staff, that the barriers faced by this population are intertwined with emotional difficulties that can both result from and give rise to interpersonal problems that are likely contributors to rather than simply symptoms of their joblessness.

About a year after I started working at The HOPE Program, HOPE's executive director emailed an article to the staff listserv that he thought might be of interest. The article, from an east coast newspaper emphasized the centrality of "soft skills", including self-awareness, an understanding of how your mood and behavior affect others; impulse control, including how you manage stress on the job; initiative, whether you can be counted on to report to work on time, manage your own time, and meet expectations; and the ability to motivate and lead others" (Noonan, 2006, p. G15) as essential hiring criteria. As indicated by staff observation and self-report, HOPE students were struggling with issues related to anger management, impulse control and difficulties in interpreting others. In my role as mental health counselor, I was spending most of my days talking about these themes with HOPE's clients, many of whom had been chronically underemployed or unemployed for years. The problems related to emotional and interpersonal functioning that impair our clients' ability to function both inside and outside HOPE's training program serve as the impetus for this study which is aimed at better understanding these factors in ways that we hope will inform future intervention strategies.

The purpose of the present study is to examine the relationships between object relations, RF, and Axis II pathology and their respective as well as combined impact on an individual's ability to obtain and retain employment (job outcome).

## **CHAPTER TWO - LITERATURE REVIEW**

### **Object Relations Theory and The Interpersonal Domain:**

Despite a lack of consensus within the psychoanalytic community as to the origin or definition of the term, taken most broadly object relations can be defined as a range of cognitive and affective processes that mediate interpersonal functioning. As a developmental phenomenon, an individual can be said to be operating along a continuum of object relations ranging from “immature” to “mature”. However, the level of object relations at which a person responds can vary within the individual and across interpersonal relationships at any given time according to the context and the degree of affect charge (Westen, 1991). Additionally, as object relations can be evaluated across several dimensions, an individual may have differing levels of object relational maturity across dimensions (Westen, 1991).

Notwithstanding numerous transformations in object relations theory since its inception as well as points of contention amongst object relations theorists that have arisen along the way, the basic tenet of object relations holds that the internalization of early relationships provides a primary basis for the development of intrapsychic structures. These representational models determine the level of maturity and quality of interpersonal relationships to which an individual is predisposed (Blatt & Lerner, 1983). “People selectively perceive information, thoughts, and feelings about self and others based on their degree of differentiation, capacity for empathy, and tolerance of ambiguity and ambivalence. A person's experience of others will be only as differentiated, varied, and integrated as his or her repertoire of internal representations. Persons whose internal representations of others are primitively organized, unstable, and distorted will view their relationships with others through this undifferentiated lens” (Levine & Tuber, 1993, p.

69). These structures, in turn, come to inform expectations and behavior in the interpersonal domain.

Similarly, the social cognition literature, incorporated by Westen and colleagues (Westen, Lohr, Gold, Silk & Kerber, 1990) into an object relations scoring system (SCORS; 1991), reflects the understanding that schemas, categories of information encoded by prior experience, underlie the ability of the individual to make inferences and organize new information (Anderson, 1983). Relational schemas are thus cognitive structures that represent patterns of interpersonal relatedness. As Baldwin (1992) explained: “The assumption is that people develop working models of their relationships that function as cognitive maps to help them navigate their social world. These cognitive structures are hypothesized to include images of self and other, along with a script for an expected pattern of interaction, derived through generalization from repeated similar interpersonal experiences” (p. 462).

Westen and colleagues (1990) have delineated four interrelated but distinct dimensions of internal representation thought to be integral to interpersonal functioning across object relations, developmental and social cognitive theories. These dimensions are as follows: 1. Complexity of representations; 2. Affect tone of relational paradigms; 3. Capacity for emotional investment in relationships and moral standards; 4. Understanding of social causality.

#### Complexity of Representations:

First, there is universal agreement that maturation involves the process of increasing differentiation of representations of self and other such that, as the individual gradually becomes aware of multiple and differing viewpoints, he/she is increasingly able not only to tolerate these distinctions but to use them to facilitate perspective taking. Maturation is also thought to be characterized by an increasing complexity of representations such that discordant views of the

object that were once intolerable and therefore split off eventually become integrated with increased appreciation of object intricacy. It is this developmental shift that optimally allows the individual to move from an all good or all bad classification of others, such as we associate with early development, to one that permits more “gray area” in the interpretation of one’s own as well as others’ mental states and behavior. Failure to attain this level of development can lead to a brittleness in interpersonal functioning where behaviors of self or other are rendered troublesome when they cannot be easily categorized according to good vs. bad classification.

Object relations theorist, D.W. Winnicott (1960), emphasized the importance of the early interpersonal interaction in the development of a capacity for mature and fulfilling interpersonal relatedness in adulthood. Thus, he attributes the development of object relations to the actual interaction between infant and caregiver. The infant enters the world in a state of non-integration. The mother, in her attunement to the needs of the infant, effectively organizes his experience through the provision of a “holding environment” that protects the child from impingement while providing nourishment and safety. Ideally, the mother’s attunement to the infant is well matched enough to foster the illusion of omnipotence in the infant such that he sees himself as the creator and controller of that which the mother has provided.

In addition to satisfaction of needs and responsiveness to gestures, the holding environment also optimally provides protection from external stimuli by a caregiver who demands nothing in return. Winnicott (1949) referred to this experience as a state of “going-on-being” which begins to provide the infant with a sense of integration and wholeness in the presence of the caregiver. Paradoxically, however, (and only if the holding environment has been “good enough”) it is the caregiver’s inevitable and “graduated failure of adaptation” (p. 246) to the infant’s needs that both necessitates and permits the infant’s separation and

individuation and transition into independent functioning. If this capacity is not attained, the infant fails to develop an internal concept of self that is sufficiently differentiated from the other such that, later in life, his ability to discern the separateness of others' thoughts, feelings, wishes and desires is impaired.

#### Affect Tone of Relational Paradigms:

The second agreed upon characteristic of internal representations is their affective tone, which is understood to inform the emotional quality of interpersonal expectations and perceptions (Westen, Lohr, Silk, Kerber, & Goodrich, 1985). The object relations theorists, Edith Jacobson and Otto Kernberg, contributed a great deal to the understanding of the role of affect in internal representation. In a departure from classical theory, Jacobson (1964) suggested that affects were actually the representations of drives integrated with representations of self and others from early life and not simply a function of drive discharge. In Jacobson's model, early exchanges between infant and caregiver are coded according to the feeling states that accompany them and are initially categorized as either good feeling or bad feeling. These subjective feelings form a representational scaffold of "self images" and "object images" that ultimately inform our feelings about ourselves and others (Mitchell & Black, 1995). As is the case in other object relations theorizing, the feelings gradually become less polarized, rendering a more integrated and complex self and other representation such that our capacity for and our ability to tolerate complex relationships with others is increased.

According to Kernberg (1990), the drive, activated in the context of the relationship between caregiver and child, is accompanied by an affect experience. The image of the object (i.e. caregiver) and the image of the self together with the affect (determined by the drive derivative) experienced during the interaction are all internalized to form what Kernberg refers to

as the tripartite (self-other-affect) “internalization system.” This system underlies our object relational matrix and informs our experience and expectation of ourselves as well as affect in relation to others (Kernberg, 1976; 1990).

Again, if all goes well, maturation is accompanied by an integration and consolidation of self and other representations such that self and other come to be understood as complex beings with a mix of qualities both negative and positive rather than either/or. If this maturation is not attained, the affective valence of the internal representations remains polarized as all “good” or all “bad”, forcing the resulting un-neutralized aggression to be projected outward in ways that negatively impact the individual’s experience of others (Kernberg, 1975). As is typical in the case of personality pathology, individuals whose object relations are thus impaired experience a deep and overwhelming expectation of pain and disappointment in relationships with others (Westen et al., 1985).

#### Capacity for Emotional Investment in Relationships and Moral Standards:

The third dimension of object relations relates to the nature and quality of emotional investment in relationships. There is consensus among object relations theorists that, as self and other representations become increasingly integrated, differentiated and complex, that the individual’s relational orientation shifts from a need based, narcissistic stance to one that can include multiple aspects of self and other. Optimally, as the individual matures, relationships are more mutual with an increased appreciation of others as separate from oneself and not just existing to gratify one’s needs (Westen et al., 1985).

Fairbairn’s (1941) developmental theory conceptualizes the infant as object seeking and reality oriented from birth. In meeting the infant’s needs, the caregiver provides a sense of containment and continuity to the infant whose sense of self is yet unstructured. Whereas other

object relations theorists view object internalization and object relations as occurring in the course of normal development, for Fairbairn they only occur as a compensation for inadequate parenting. Where the meeting of the child's needs has been adequate, the child's relational investment shifts from need based to a position of "mature dependence" (p. 34) characterized by a more mutual exchange that includes giving as well as taking. Where parenting has been unresponsive, the unresponsive aspects become internalized as fantasized aspects of the self. These internal objects and object relationships then serve as substitutes for actual relationships that are experienced as alien and frightening. Fairbairn concludes that these internalized structures inform all future interpersonal interactions and relationships insofar as these early object representations represent a safer (i.e. more familiar) and therefore preferred way of relating to any new objects. Put more simply, internal object relationships are projected outwards onto all new interpersonal relationships such that the individual's capacity to invest in relationships with others is inevitably colored by his internal representation of prior relationships.

Kohut (1977) also describes a shift on the part of the infant from narcissistic need meeting in relationships to relationships that are more mutual and complex. Like Winnicott (1949), Kohut conceives of this shift as being facilitated by adequate and responsive parenting which permits a sense of omnipotence in the child that ultimately allows for the emergence of the self. As the child encounters inevitable disappointments when parents periodically fail to meet his needs, he gradually develops an awareness of himself as separate from the object (parent) in a way that permits more mature, emotional investment in others (Greenberg & Mitchell, 1983).

### Understanding of Social Causality:

A fourth dimension of object relations, outlined by Westen and colleagues (1985) relates to the quality of understanding social causality. Research in developmental theory suggests that the ways in which children make inferences about causality in social exchanges changes at several points during maturation such that their inferences become increasingly, complex, accurate, abstract and internal (i.e. the child is able to make inferences based on internal psychological processes) (Westen, 1991). When developmental conditions have been less favorable, the individual may fail to attain these hallmarks of maturation as is found to be the case in individuals with severe personality pathology (Westen, 1991). References to social causality in psychoanalytic literature are found primarily in the context of clinical case descriptions of such object relational pathology. For example, based on their work with patients with borderline personality disorder, Westen et al. (1991) have posited a “borderline attribution style characterized by egocentric attributions, expectations of malevolence in intimate relationships, tendency to make peculiar and inaccurate attributions, and tendency to make affect-centered attributions (attributions that are congruent with mood or affective valence of representations--i.e. affect-driven attributions)” (p. 446).

To clarify the nature and development of an individual’s ability to make inferences about social causality, Lerner and Lerner (1985) have combed the developmental literature for shared points along a causality development timeline. From Piaget’s stage theory, the authors locate a series of shifts in cathexis from the body to the outside environment and extrapolate changes in social causality inferences from observed changes in behavior patterns and cognitive processes. On to this framework, the authors overlay Mahler’s theory of separation-individuation to emphasize the role of the parental object in facilitating cognitive growth.

In what he termed the sensorimotor period of development (18-24 months), Piaget described a shift on the part of the infant from a more egocentric focus to a growing awareness and interest in external objects. Lerner and Lerner (1985) reframe this moment in development in social causality terms, identifying it as the moment when the child begins to conceive of the object reality as related to the object's surroundings rather than simply his own actions upon it. This development marks a dawning awareness of causality that includes forces outside of the infant's control. The achievement of Piaget's object permanence as well as the ability to symbolically represent objects, further advances the development of causality in that the child becomes able to infer a cause from viewing an effect as well as to anticipate the likely effect of a cause beyond immediate causal observation.

As is the case with other aspects of object relational functioning, these developments take place in the context of early relationships with caretakers. Lerner and Lerner (1985) refer to Mahler's separation-individuation phase to highlight the role of the primary caretaker in patterning an awareness of social causality. Where the symbiotic phase described by Mahler has been satisfactory and where there has been appropriate and non-punitive maternal mirroring in the context of the child's bids for autonomy, the child feels safe to begin exploring away from the secure base of the mother. These explorations are accompanied by cognitive growth as new aspects of the world and social relationships are internalized by the infant. Ideally, causal inferences will come to reflect an understanding on the part of the child of his own motivations and behaviors as well as an increased capacity for perspective taking that allows the child to infer the motivations behind the behaviors of others as well as their interpersonal implications. Conversely, failures in the parental function will inhibit the child's wish to explore, thereby limiting the child's ability to understand others' intentions and beliefs as separate from his own.

Lerner and Lerner (1985) assert that these limitations result in the child's failure to obtain information from his environment that, in turn, can give rise to "restricted vocabularies, and an inability to conceptualize and interpret the world in human terms" (p. 492).

Summary:

In summary, the term, object relations, refers broadly to the internalization of representations of self and others based on early relationship experiences and the ongoing impact of these internal representations on interpersonal functioning. Ideally, internal object relations become increasingly differentiated with increased capacity for taking perspective and understanding interactions from multiple viewpoints. If early development has been characterized by non-threatening, nurturing experiences, these internal representations will be imbued with a positive affective tone, which will in turn positively affect one's expectations of others in the larger social domain. As maturation and differentiation proceeds, causal attributions of the behaviors, thoughts and feelings of oneself and others will reflect an increasing complexity, accuracy and abstractness. This development allows for a wider range of interpretation of human behavior and permits greater tolerance and flexibility in adjusting to multiple and differing perspectives. One's relationships with others will simultaneously become more mature and mutual as they shift from need-based gratification to an appreciation of the other as separate with other needs, viewpoints and potential contributions. But what happens at the opposite end of the continuum when the course of development has been far from optimal? One is more likely to encounter a rigid interpersonal style characterized by a negative affective tone and a difficulty interpreting the behavior of others. These elements combined would seem to make it more likely that the individual will misinterpret and negatively imbue the intent of those around them.

## **Object Relations Research**

Because of the largely unconscious nature of internalized object relations, projective techniques, designed to access unconscious processes, have been found particularly useful in their assessment. In the view of projective researchers like Mayman (1967), a person projects his internal representations, developed from his own history and experience of the world, onto projective test stimuli. While a number of scoring systems have been empirically applied to a variety of projective tests, this discussion will focus on the application of Westen and colleagues' Social Cognition and Object Relations Scale (SCORS; 1990) to the Thematic Apperception Test (TAT; Murray, 1943) as this measure is to be utilized in the present study. Westen (1991) describes the TAT as particularly well suited to the assessment of object relations because of the inherently social nature of the stimulus which requires the subject to provide associations to people and relationships. As Westen (1991) suggests, "subjects are likely to provide enough detail in describing characters and relationships as to provide considerable access to cognitive and affective-motivational patterns related to interpersonal functioning in intimate relationships" (p. 56).

Numerous studies have been conducted using Westen et al.'s (1989) SCORS method of coding object relations using various projective methods from the TAT to stories about the Picture Arrangement subtest of the WAIS-R, interpersonal memory and interview narratives. Westen, Lohr, Silk, Gold, and Kerber (1990) have reported uncorrected pairwise interrater reliabilities ranging from .88 to .95 and Westen, Klepser et al. (1991) have reported similarly high reliability. The SCORS has been found to effectively demonstrate developmental changes across the lifespan (Westen, Klepser et al., 1991), to discriminate between affective and cognitive dimensions (Westen, Huebner, Lifton, Silverman, & Boekamp, 1991) and to correlate

to Blatt, Wein, Chevron, & Quinlan's (1979) measure for assessing cognitive-developmental level of parental representations (Leigh, Westen, Barends, Mendel, & Byers, 1992). Construct validity has been demonstrated by comparison of SCORS to other methods of object relations measurement (Hibbard, Nash, Hilsenroth, & Hibbard, 1995) as well as by convergence of results between SCORS scoring for TAT as well as interview data (Leigh et al., 1992; Barends, Westen, Leigh, Byers, & Silbert, 1990). Additionally, the SCORS has been found to effectively discriminate between groups of normals, major depressives and borderlines (Westen et al., 1990; Nigg, Silk et al., 1991; Nigg, Lohr, Westen, Gold, & Silk, 1992), physically abusive and non-abusive relationships (Cogan & Porcerelli, 1996), natural science and clinical psychology graduate students (Westen, Huebner et al., 1991), physically abused, sexually abused and non-abused children (Ornduff & Kelsey, 1996), and borderline, psychiatrically disturbed non-borderline, and normal adolescents (Westen, Ludolph, Lerner, Ruffins, & Wiss, 1990).

Much of the research performed using SCORS supports the theory that traumatic early histories contribute to impaired object relations representations. For example, in clinical research assessing whether the general experience of trauma would cause object relations impairment or if impairment would vary according to whether the type of trauma inflicted was physical or sexual, the researchers (Ornduff & Kelsey, 1996) found that either trauma resulted in object relations impairment. Subjects who were abused revealed generally lower levels of object relations as well as a higher number of Level 1 responses (the lowest on the 1-5 scale) overall when compared to non-abused controls. Sexually abused children's difficulties were reflected in lower levels of Affect Tone of Relationship Paradigms whereas physically abused children were impaired in both Affect Tone and Emotional Investment. Effect sizes of  $r=.43$  for overall means

and  $r=.42$  for frequency of Level 1 scores demonstrate a difference of greater than 40% in overall object relations impairment between abused and non-abused children.

Another clinical study yielded similar results. Westen, Ludolph, Block, Wixom, and Wiss (1990) found that various experiences of early deprivation predicted low object relations scores in psychiatrically hospitalized adolescents. For each patient, chart history was assessed for genetic family history, childhood symptoms, neurological history, traumatic history (i.e. neglect, physical and sexual abuse), removal from parental home, grossly inappropriate parental behavior, and significant separations. Maternal psychiatric illness was found to be the best predictor of pathological object relations amongst the adolescents on every SCORS dimension but Complexity of Representations. Taken as a whole, maternal separation and number of mother surrogates was shown to have a pervasive negative effect on object relations, and sexual abuse and number of mother surrogates both correlated with malevolent Affect Tone. Additionally, there was found to be a strong correlation between duration of sexual abuse in months and the percentage of Level 1 scores on every scale. Finally, while the number of middle childhood risk factors did not significantly predict any of the object relations dimensions, the number of early childhood risk factors (age 0-3) correlated with all four.

Research with non-clinical populations has yielded similar findings. In a study using archival longitudinal data collected from mother-child pairs at three separate points in time over 36 years, Bram, Gallant and Segrin (1999) used Westen's (1995) Social Cognition and Object Relations Q-Sort for Projective Stories (SCORS-Q) in order to score TAT stories collected when the child-subjects were 31 years old and then again when they turned 41. The SCORS-Q scores were compared to measures of child-rearing, physical and psychological health and interpersonal functioning variables collected when these adults were approximately five years old. Increased

maternal separations in the first nine months of life were found to predict lower Affect Tone, Capacity for Emotional Investment in Relationships and Understanding of Social Causality. Higher maternal strictness significantly predicted lower scores on Complexity of Representations whereas higher levels of paternal warmth significantly predicted greater capacity for emotional investment in both relationships and moral standards. Moderate levels of maternal strictness, less use of physical punishment by mothers and fewer separations from mothers in the first nine months of the child's life were found to predict higher levels of Understanding of Social Causality. Additionally, the quality of significant relationships as reported in adulthood was significantly related to the Capacity for Emotional Investment in Relationships dimension.

In a study aimed at validating the Complexity of Representations scale, Westen and colleagues found that degree of complexity was inversely correlated with difficulty in intimate relationships, suggesting that problematic intimacy is related to lower complexity of representations (Leigh et al., 1992). A sample of 96 college undergraduates was exposed to a testing battery that included the Thematic Apperception Test (TAT; Murray, 1943). Complexity of representations predicted a low degree of difficulty within intimate relationships ( $r =$  between  $-.34$  [ $p = .05$ ] and  $-.38$  [ $p = .02$ ]); whereas, complexity in the description of an unpleasant episode with a disliked other was negatively correlated with difficulty within intimate relationships ( $r = -.31, p < .03$ ), difficulty being open to others ( $r = -.22, p = .05$ ), and social isolation ( $r = -.26, p < .02$ ). These associations were significant in spite of a relatively small  $n$  (40), which resulted from the fact that only a subset of the sample was involved in a love relationship.

Fewer studies have examined the relationship between object relations scores and outcome. In one such study, Ford, Fisher, and Larson (1997) sought to determine whether object relations

would predict treatment outcome in an inpatient sample of 74 male war veterans diagnosed with Posttraumatic Stress Disorder. Veterans with moderate object relations scores ( $n = 28$ ;  $M = 3.68$ ,  $SD = 0.59$ ) showed improvement on self-report measures of PTSD symptoms, anxiety, anger, global distress, quality of life, perceived self-control and made fewer trips to the clinic post discharge. Those veterans with low object relations scores ( $n = 46$ ;  $M = 2.05$ ,  $SD = 0.63$ ) also made fewer trips to the clinic though they reported worsening symptoms. Ford and his colleagues concluded that implementing SCORS as a measure of object relations might provide important information in the detection of patients at greater risk for poor therapeutic outcome or premature dropout.

### **Mentalization Theory and the Interpersonal Domain**

Mentalization theory, like object relations theory, places a strong emphasis on early development, in particular “the mother’s biologically determined ability and inclination to read, modulate, and reflect back the infant’s state-expressive behaviors that...contribute significantly to psychic structure-building and to the emergence of emotional self-awareness and control” (Fonagy, Gergely, Jurist, & Target, 2002, p. 190). Like underlying object representations, the capacity for mentalization is thought to inform the nature and quality of interpersonal relationships such that the individual is imbued with the capacity to consider and reflect upon his mental states as separate from those of the other and to use this information to effectively regulate affect and guide behavior.

#### Origins:

The construct of mentalization was introduced over 10 years ago by a team of psychoanalytically oriented attachment researchers, Peter Fonagy, Miriam Steele, Howard Steele, and Mary Target (Fonagy, Steele & Steele 1991; Fonagy & Target, 1995) and can be

understood narrowly as “the capacity to understand one’s own and others’ behavior in terms of underlying mental states and intentions, and more broadly as a crucial human capacity that is intrinsic to affect regulation and productive social relationships” (Slade, 2005, p. 269).

Mentalization is founded in psychoanalytic theory, in particular, attachment theory. The origin of mentalization theory can be traced as far back as Freud’s concept of “Bindung” or psychic linking, which he used to describe the transformation from physical to psychical associations in the developing child (Fonagy et al., 2002). Melanie Klein (1945), also acknowledged a similar process, which she identified as the “depressive position.” This stance is manifested in the capacity to recognize the emotions of others as well as one’s own emotional contribution (Fonagy et al., 2002; Klein, 1945). Likewise, Winnicott (1960b) believed that the “true self” developed in the child as a function of the caregiver’s demonstration of a psychological understanding of the child, whereby the child develops an awareness of self through the perception of himself in the caregiver’s mind as thinking and feeling. A failure to provide this function results in a fragmented or “false” self-representation in the child (Fonagy, et al., 1998; Winnicott, 1960b). In addition, other theorists such as Bion, Fairbairn and Kohut have given consideration to the crucial development of the capacity to be aware of, and understand the emotional processes of the self and of others (Fonagy, Target, Steele, & Steele, 1998).

Attachment theory has also contributed to the development of the mentalization construct. Influenced by the ethology research of neo-Darwinians such as Lorenz (1952) and Harlow (1958), Bowlby (1969) developed a theory of attachment that emphasized a biologically based proximity seeking behavior and need for close “affectional” bonds that are evident from birth. The child’s “attachment behaviors” (e.g. crying, reaching) alert the mother to the infant’s

needs so that she may return the infant to a state of quiescence and comfort. This cyclical interaction between infant and mother ultimately serves to enable the infant to learn to regulate emotion and decrease arousal at times of distress.

Building on Bowlby's theory, Ainsworth, Blehar, Waters, and Wall (1978) developed the "Strange Situation", a research paradigm aimed at identifying attachment patterns that originate in infancy. Research using this model (Ainsworth, 1985; Main & Solomon, 1986; 1990), has yielded four attachment categories: Secure, Anxious/Avoidant, Anxious/Resistant, and Disorganized/Disoriented. George, Kaplan and Main (1984) developed the Adult Attachment Interview (AAI) as a means of investigating how the parents of children whose attachment had been classified in the Strange Situation procedure would describe their own childhoods and whether attachment patterns could be handed down inter-generationally. Using the AAI, Hamilton (2000) was able to ascertain that attachment was a stable characteristic that could indeed be transmitted via the caregiver across generations.

#### Reflective Functioning:

The capacity for mentalization was operationalized as reflective functioning (RF) and originally developed for use in the London Parent-Child Project (Fonagy, Steele, Moran, Steele and Higgitt 1991). The construct of RF emerged out of Mary Main's (1991) narrative coherency work on the Adult Attachment Interview (AAI) (George et al., 1984). Main and her colleagues discovered that a coherent narrative is the marker of a securely attached individual's ability to accurately and coherently represent and articulate stories around their significant attachment relationships. Without the parental provision of affective attunement that promotes secure attachment, the infant is unable to learn that he or she has a mind that is separate from the

caregiver and fails to develop a capacity for self-reflection and reflection about the minds of others.

This capacity is what Main (1991) has been able to capture by analyzing narrative coherence where coherence is defined as follows: 1) adherence to Grice's (1975) four maxims of coherent discourse (manner, quality, quantity and relevance); 2) the ability to monitor one's own cognitive functioning while effectively tracking the listener's state of mind; and 3) overall plausibility of the narrative (George & Solomon, 1996). In a secure-autonomous AAI narrative (George et al., 1985), "the presentation and evaluation of experiences is internally consistent, and responses are clear, relevant and reasonably succinct" (Main, 1996; p. 240), whereas incoherent narratives reflect loosely structured, multiple and conflicting models of attachment relationships. This emphasis on interpersonal representations as expressed by metacognitive monitoring and narrative coherency forms the operational basis for the construct of reflective functioning. Thus, the capacity for mentalization is assessed through the measurement of reflective functioning in narrative using a scale developed by Fonagy et al., (1998).

#### Distinction Between the Minds of Self and Other:

The concept of mentalization grew out of the observations of attachment researchers and describes a developmental milestone whereby the child optimally comes to experience mental states as representations and can see inner and outer reality as linked but at the same time differing in important ways (Fonagy et al., 1998). This capacity can only develop fully in the context of a secure attachment relationship and may be "subject to the vicissitudes of conflict and anxiety and consequent defensive disruption" (Fonagy, et al., 1995, p. 251). Experiencing the self as an independent agent paradoxically develops through interpersonal experiences that allow the child to see his internal states mirrored in the expressions of the other (Fonagy &

Target, 2003). Ultimately, the capacity for mentalization occurs when the child internalizes these experiences of the caretaker's ability to gauge the child's mental processes accurately and to reflect these back to the child in ways that are similar enough to transmit an experience of "selfness" yet also different enough to be simultaneously processed as "other." Thus, the child feels understood by the caregiver while at the same time being introduced to a higher-level and slightly altered representation of that experience (Fonagy et al., 2002). By seeing their mental states reflected in this way, children are helped to identify their own internal states as well as those of others (Bleiberg, Fonagy, & Target, 1997). The more benign, reflective and attuned these early interactions with more mature minds, the more differentiated the development of the psychological self and the greater the experience of self-agency (Fonagy & Target, 2003; Fonagy & Target, 2006).

Conversely, if the parenting has been misattuned or coercive such that the individual has not been helped to experience himself as separate from the parent, then internal states are never effectively identified. Thus actions, rather than being linked to identifiable internal states and intentions, represent desperate attempts at asserting self-agency (Fonagy et al., 2002). This cleaving of action from intention results in a rigid response to emotionally charged interpersonal interactions in that it severely limits the future ability of the individual to reflect upon and consider what is motivating his action before taking it, making it easier to disown the action and its consequences. The capacity to consider the perspective of others is predicated upon an understanding of self as separate and agentic. Without this capacity, and in the context of emotional upheaval, the likelihood of interpersonal conflict increases, as the individual's selfhood feels threatened. The constant need to respond to this perceived threat compels the

individual to repeatedly engage in asserting himself even at the expense of the other (Fonagy et al., 2002).

The pressure to preserve the self plays out at the level of internal representation of self and other with important implications for interpersonal interaction. Under optimal conditions, the individual is able to represent complex and separate internal states of both self and other. When this is not the case and the internal representations are more fragile, the distinction between self and other is weaker. In this case, the individual's sense of selfhood is again threatened such that he must take steps to protect himself in the context of charged interpersonal relations. From an attachment perspective, the individual with such an insecure internal working model, can preserve himself either through withdrawing and enhancing the self at the expense of the other or by exaggerating the representation of the other at the expense of the self. Both strategies represent attempts to separate self from other and lead to a distorted and unbalanced experience in the interpersonal domain in sharp contrast to the kind of mutual and productive interpersonal relationships that are possible when separate identity has been successfully established and no such threat to self is perceived.

#### Affect Regulation:

Mentalization theorists emphasize affect regulation as it occurs in relation to others insofar as our experience of current and future emotion in relation to others is informed by prior emotional experience in the interpersonal context (Jurist, 2005; Fonagy et al., 2002). If our early experiences of affect have been modulated through a protective relationship with the caregiver, we will be better prepared to tolerate the experience of affect in the future, anticipating it to be contained and manageable. Where the experience of affect has been unmodulated and overwhelmingly negatively charged, we imbue the experience of future affect with fear and

potential for disintegration and will develop a self-representation that is fractured by the efforts involved in avoiding affect experience.

Thus, benign and nurturing experiences of the caregiver foster affect regulation thereby permitting the unimpeded development of the self. An individual who has not been helped to regulate affect in this way is overwhelmed such that the self cannot fully develop or develops in an unintegrated way. The development of the self fosters the ability to mentalize – to reflect upon one’s own mental state as well as that of the other. Once established, the capacity to mentalize promotes a higher level of affect and self-regulation referred to by mentalization theorists as “mentalized affectivity” (Fonagy et al., 2002). This ability to reflect upon and tolerate the experience of affect while in the midst of the affect experience, represents a type of regulation that “serves to help us to craft affects and to communicate them (at times in lieu of acting on them)” (Fonagy et al., 2002, p. 95).

This ability to make sense of one’s own emotional experiences as well as to understand others’ emotional responses contributes to the capacity for affect regulation, impulse control and self-agency (Bleiberg et al., 1997). The act of mentalization permits the individual not only to render other people’s behavior more predictable but also as more meaningful. Being able to predict the behavior of others imparts a level of comfort and security. At the same time, being able to extrapolate meaning from the behavior of others provides a context for their actions and allows one to take perspective. As the child experiences interactions that are ideally benign and nurturing and accurately attuned to his mental state, the child will develop a set of self-other representations, which serve as a gauge for appropriate behavior in future interpersonal interactions. The varying degree to which individuals develop this capacity accounts for

individual differences in self-organization, self-consciousness, autonomy, and responsibility (Fonagy & Target, 1997).

Summary:

In summary, mentalization refers to the capacity to interpret and understand the behavior of others in terms of underlying mental states including feelings and intentions. Reflective functioning is the operationalized referent to the capacity to mentalize that can be scored in narrative. This capacity, developed through the caregiver's attuned reading and modulating of the child's internal state, heralds the ability of the child to understand himself as separate from the caregiver with desires, feelings, thoughts and wishes that are distinct from those of the other. The benign and nurturing interaction with the caregiver also helps the child to regulate his own affect responses such that they become manageable, allowing the child and ultimately the adult to anticipate future affect experiences without fear of becoming overwhelmed and disintegrating. Self-other differentiation promotes the capacity to mentalize which, in turn, permits the individual to reflect on his own affect as well as that of others in such a way that he is afforded the ability to experience and communicate affect rather than impulsively act without understanding the mental state behind the action.

Where early interactions with the caregiver have been misattuned, absent or hostile, the child fails to develop a coherent sense of self and agency such that future interactions with others are more likely to represent a frantic attempt at self-assertion and separation rather than a mutual interaction based on the non-threatening understanding of the other as separate and autonomous. This development may also lead to the individual's inability to tolerate affect in an interpersonal context and to act out impulsively based on a profound disconnect between intention and action. In this scenario, the individual is left with a sense of mystery as to his own internal states and

those of others, overwhelmed by the experience of intense affect, more likely to act impulsively and more likely to experience as threatening the separate intentions/desires of others, all of which increase the likelihood of interpersonal misunderstanding and conflict.

### **Mentalization/Reflective Functioning Research**

The reflective functioning (RF) scale was originally developed for use in the London Parent-Child Project, a study of 100 pregnant women (Fonagy et al. 1991). Subjects were initially interviewed in pregnancy and their infants were later assessed for security of attachment to both parents using the Strange Situation Procedure (Ainsworth et al., 1978) and the AAI (George et al., 1984). Analysis revealed that mothers who were more likely to invoke mental states in the description of their childhood attachment history had children with superior attunement to mental states even after controlling for verbal fluency in the child. RF ratings for fathers also had a significant effect on the child's performance of cognitive-emotion tasks. A path analysis revealed that the mother's reflective capacity as well as the quality of mother-infant attachment in the AAI had an impact on the child's theory of mind performance, and that the impact of reflective capacity was both direct and indirect. Additionally, ratings of the quality of RF of each caregiver were found independently to predict the child's security of attachment ( $r=.51$  for mothers and  $r=.36$  for fathers,  $p<.001$  in each case).

This finding established RF as a significant contributor to the development of the child's attachment security as well as theory of mind and ushered in a host of other studies aimed at further elucidating the impact of RF. In a separate analysis of the London Parent-Child data (Fonagy et al., 1991), high RF was found to be predictive of secure attachments in the children of mothers despite reported significant deprivation in the mothers' childhoods (Fonagy, Steele, Steele, Higgitt & Target, 1994). High deprivation was defined as exemplifying three of the

following factors: Prolonged separation from parents before age 11, prolonged paternal unemployment, life threatening illness of either parent, psychiatric illness in either parent, boarding school, overcrowding, single parent family, serious illness in the child and low socio-economic status. Mothers were further divided into low or high RF groups (high being a score of 5 or above on a -1 to 9 scale). Of those in the low deprivation group, 79% of those with high RF (n=39) had securely attached infants compared to 42% with low RF (n=31). In the deprived group, 100% of those with high RF (n=10) had securely attached infants, whereas only 6% of those in the low RF group (n=17) did so. The results of this study imply that the presence of RF is enough to promote secure attachment and associated behaviors like affect regulation and impulse control notwithstanding significant social deprivation in the mother's history.

In a follow-up study to the London Parent-Child Project (Fonagy et al., 1991), five-year-old children from this data set were assessed using the Belief-Desire Reasoning Task (Harris, Johnson, Hutton, Andrews & Cooke, 1989), which requires the child to accurately identify the emotional state of a puppet. The children's scores on this task were correlated with their mother's RF scores from the prenatal interview ( $r=.32$ ,  $p<.001$ ), even after controlling for child's and mother's verbal ability. In path analyses, which included both mother's and father's attachment security classification, child's verbal fluency, mother's RF, and infant-mother and infant-father attachment security, mother's RF was found to predict the child's performance on a cognitive emotion task, independent of other variables.

In keeping with the trend toward evidence-based treatments, numerous RF studies have been conducted on clinical populations in order to better understand the relationship between mental illness and RF and to inform the development of mentalization-based treatment strategies (Allen & Fonagy, 2006). In the Cassel Hospital Study, Fonagy and colleagues (Fonagy et al.,

1996) found differences in RF ratings between psychiatric and control groups and between patients with Axis II diagnoses and those without. The psychiatric group consisted of 82 non-psychotic, largely personality-disordered patients who were matched on age, gender, socioeconomic status and verbal IQ with 85 control participants recruited from an outpatient medical department and screened for psychiatric disorders. The AAI was administered to all participants and RF ratings were assigned, ranging from -1 for lowest and 9 for highest level of RF. The mean rating for the psychiatric group was 3.7 (SD=18), which was significantly lower than the 5.2 average (SD=18) obtained by the control group. Additionally, patients with Axis II diagnoses were found to have lower RF scores than those without. This result was principally due to the influence of those Axis II patients diagnosed with Borderline Personality Disorder (BPD) who were rated significantly lower on RF than other Axis II patients  $F(1,80)=13.4$ ,  $p<.001$ . When examining the association of reported physical and sexual abuse with RF as well as BPD, researchers found that the likelihood of reported abuse was greater in patients who scored lower in RF than those patients whose RF scores were above the median. While only 17% of the patients reporting abuse in the high RF group were diagnosed with BPD, 97% of the patients reporting abuse in the low RF group were diagnosed with BPD. In the group not reporting abuse, the prevalence of BPD was the same in both high and low RF groups, leading Fonagy and colleagues to conclude that low RF is predictive of BPD only when the patient has a history of abuse.

Although there is ample research illustrating the impact of RF in clinical and parenting contexts, to date there has been only one major mentalization based study examining the impact of RF in a larger social context. In the Peaceful Schools Project (Fonagy et al., 2009), Fonagy and colleagues examined the impact of a mentalization and power dynamics systems based

intervention on bullying, violence and disruptive behaviors in overcrowded elementary schools where violence resulting in injury is not uncommon. In nine such elementary schools, located in midsize Midwestern cities in low-income communities, the researchers compared their mentalization-based intervention to a treatment-as-usual control condition as well as a traditional school psychiatric consultation intervention.

The study was a cluster-level randomized controlled trial wherein approximately 3,600 students (K-5) were exposed to the interventions. Compared to the other two interventions, the mentalization-based intervention group showed a decrease in peer-reported victimization ( $p < .01$ ), aggression ( $p < .05$ ), and aggressive bystanding ( $p < .05$ ) compared to control schools. The intervention showed less of a decline in empathy compared to psychiatric consultation ( $p < .01$ ) and control conditions ( $p < .01$ ).

The Peaceful Schools approach also produced a significant decrease in off-task behavior ( $p < .001$ ) and disruptive classroom behavior ( $p < .001$ ) whereas behavioral change was not observed in the psychiatric consultation and control schools. The findings of reduced victimization ( $p < .05$ ), aggression ( $p < .01$ ), and aggressive bystanding ( $p < .01$ ) were maintained in the follow-up year.

These results have led Twemlow, Fonagy and colleagues (2005) to speculate and theorize as to the implications of these findings for larger communities than have traditionally been the focus of RF study. The researchers extrapolate two key components of mentalization-based approaches in the area of preventive psychiatric medicine and social policy as follows: “1. Mentalizing is a key psychological skill absent from violent individuals and communities. Mentalizing develops from the secure attachment experiences of infants and creates the foundation for human beings’ ability to read their own internal states as well as those of others.

The result is the ability to control emotions and negotiate rather than fight ( Fonagy, Gergely, Jurist, & Target, 2002 ). 2. The roles of unconscious power dynamics, which can create coercive social forces, reduce an individual's capacity to think in mental state terms, that is, to mentalize. This process is enacted through the social roles of bully–victim–bystander that can begin at birth (e.g., if a caregiver deprives the infant of the capacity to think his or her own thoughts and feel his or her own feelings, as in pathological narcissism) and that can evolve destructively in later social experiences (e.g., children at school, adults at work)” (Twemlow, Fonagy and Sacco, 2005a, p. 265).

### **Object Relations, Mentalization and Emotional Intelligence**

The impact of object relations and mentalization/RF on outcomes like employment has not been previously examined. However, in the domain of social and personality psychology, research informed by the theory of Emotional Intelligence (Salovey & Mayer, 1990) suggests that the kinds of interpersonal capacities implicated in mentalization/RF and informed by underlying object representations – namely the capacity to take perspective, to recognize the mental states/emotions motivating the behavior of self and others and to view one's self and intentions as separate from the other – are very relevant to functioning effectively in the workplace. In short, Object Relations and Mentalization are comprehensive theories that provide an account of the origins of the emotional capacities described in Emotional Intelligence and defined by theorists, Salovey and Mayer (1990), as “the ability to monitor one's own and other's feelings and emotions, to discriminate among them, and to use that information to guide one's thinking and actions.” The theory and research outlined in the following section on Emotional Intelligence is included here to function as a bridge between the largely clinical research on

Object Relations and Mentalization and the larger social context of job readiness; the outcome to be examined in the present study.

#### Emotional Intelligence and the Workplace: Theory and Research:

In recent years, interest in research aimed at identifying aspects of emotional functioning that affect competence in the workplace has spread from the scientific community to the mainstream media and, increasingly, the business world. The publication of Daniel Goleman's (1995) controversial book, *Emotional Intelligence: Why It Can Matter More Than IQ*, helped Emotional Intelligence to find this wider audience. Though received with some skepticism by even the proponents of "EQ" in the Industrial/Organizational Psychology community, Goleman's (1995) book was wholly embraced by the corporate business world after an article on the book that appeared in the Harvard Business Review (Goleman, 1998), prompted the CEO of Johnson & Johnson to purchase copies of the book to be delivered to each of the company's 400 top executives worldwide (Cherniss, 2000).

The popularity of Emotional Intelligence has led certain writers to proclaim these dimensions of emotional functioning as the new "driving force of intelligence" (Cooper & Sawaf, 1997, p. xxvii) expected to displace IQ as the predominant criterion in hiring selection, training, placement and promotion (Noonan, 2006). However, despite the fact that measures have emerged in an attempt to assess these dimensions, recent reviews have highlighted the paucity of empirical investigation in this area and have advocated for more rigorous research that attempts to isolate which of these affective constructs are most relevant, how and to what extent (Zeidner, Matthews, & Roberts, 2004).

From as early as the 1920's researchers have been attempting to grapple with the concept of a "social intelligence" as distinct from intellectual intelligence, all the while acknowledging

the difficulties of developing an adequate instrument for its measurement (Thorndike, & Stein, 1937; Wechsler, 1940; Cronbach, 1960). In fact, the concept was thought to be so unwieldy that many researchers have deemed it unworthy of serious consideration (Brown & Anthony, 1990; Ford & Tisak, 1983; Keating, 1978; Legree & Grafton, 1995; Marlowe, 1986; Riggio, Messamer & Throckmorton, 1991; Schneider, Ackerman & Kanfer, 1996; Striker & Rock, 1990; Zaccaro, Gilbert, Zazanis & Diana, 1995). In 1983, Gardner introduced his theory of “multiple intelligences” in an effort to revive the investigation into alternatives to the traditional western conceptualization of intelligence with its sole consideration of numeric, verbal and spatial reasoning. He proposed the concept of a “personal intelligence” which included both interpersonal (understanding other people) and intrapersonal (understanding one’s self) aspects. As justification for the inclusion of this dimension into his model of intelligence, Gardner (1983) offered that “The capacity to know oneself and to know others is as inalienable a part of the human condition as is the capacity to know objects or sounds, and it deserves to be investigated no less than these other ‘less charged’ forms” (p. 243). Although Gardner (1983) did a great deal by introducing these ideas to a lay audience, he did not suggest a means by which “personal intelligence” might begin to be quantified or assessed.

Combining Gardner’s (1983) dimensions of intra- and interpersonal intelligence, Salovey and Mayer (1990) coined the term, Emotional Intelligence (EI), submitting it as a subset of social intelligence comprised of four branches: 1. Perception of emotion; 2. The use of emotion to facilitate thought; 3. Understanding emotion or emotion knowledge; 4. Managing emotion. More concisely, Salovey and Mayer (1990) define EI as “the ability to monitor one’s own and other’s feelings and emotions, to discriminate among them, and to use that information to guide

one's thinking and actions", which ability their research has identified as one of the greatest sources of variance in actual performance on the job (Salovey & Mayer, 1990).

In addition to this "ability-based" model (Mayer, Caruso & Salovey, 1999, 2000), which conceptualizes EI as a "well-defined and conceptually related set of cognitive abilities for the processing of emotional information and regulating emotion adaptively" (Zeidner et al, 2004, p. 375), "mixed-models" have been proposed (Goleman, 1995; Bar-On, 1997) that view EI as a mix of competencies and temperamental factors required for successful personal functioning and coping with social environments. Critics assert that the theoretical differences between these camps lead to obvious problems in assessment of EI in that whatever is being measured according to a mixed model definition is likely not the same type of EI as defined within the ability-based models (Zeidner et al, 2004; Ciarrocchi, Chan & Caputi, 2000). For example, mixed-model approaches rely on self-report for assessment whereas ability-based approaches use objective, performance-based measures in scoring of EI. However, a comparison of these approaches and a review of related literature have led several critics to identify the ability-based model (Mayer, Caruso & Salovey, 1999, 2000) as the most promising of the proposed models due to its performance orientation and empirical basis, notwithstanding the limitations of objective approaches (Zeidner et al, 2004; Matthews, Zeidner, & Roberts, 2002). To avoid confusion in comparison of constructs for the purpose of this research, all following references to EI will be to the ability-based model of EI as defined by Salovey & Mayer (1990) unless otherwise specified.

Although research in this area is still in its infancy, there has been growing empirical support for the efficacy of the ability-based model of EI as a predictor of job performance. Higher EI ratings have been found to be significantly related to effective leadership performance

(Lopes, Côté, & Salovey, 2006), group decision-making effectiveness, supervisors' favorable rankings of job performance (Janovics & Christiansen, 2003) and supervisors' favorable rankings of customer service among sales teams, as well as percent merit increases, company rank and peer and supervisor ratings at a Fortune 400 insurance company (Lopes, Salovey, & Straus, 2003). In addition, research suggests that the emotional abilities conferred by EI may help individuals to navigate interpersonal interactions involved in getting their job done (Caruso, Mayer, & Salovey, 2002; Côté & Morgan, 2002); to achieve success mediated by interpersonal relationships at work (Seibert, Kraimer, & Liden, 2001); and to adapt to structural changes in organizations (Sy & Côté, 2004).

Additionally, research on the effect of emotion on social interactions has yielded results that might also relate to job performance insofar as one's job performance depends to some extent on successful interpersonal interactions. For instance, research has demonstrated that displays of emotion act as indicators of an individual's goals and intentions (Ekman, 1993; Keltner & Haidt, 1999, 2001) as well as acting to trigger behavior in others. As an example, an individual's expression of sadness will often lead others to respond with empathic and helpful behavior (Clark, Pataki & Carver, 1996; Eisenberg et al., 1989). Additionally, unregulated negative emotions have been found to undermine the nuanced orchestration of social interactions (Baumeister & Tice, 1990; Csikszentmihalyi, 1992) as well as drive other people away (Argyle & Lu, 1990; Furr & Funder, 1998).

To date, there has been no published research on the potential relationship between EI and job acquisition and retention. However, the emotional abilities outlined by Salovey & Mayer (1990), namely the ability to accurately identify and regulate one's own emotions, to correctly perceive others' emotions and to use emotional information to guide behavior, are

likely to be useful not only in terms of job performance but also in obtaining and retaining a job. Similarly, the research described above on the effect of EI on social interactions (Ekman, 1993; Keltner & Haidt, 1999, 2001; Clark, Pataki & Carver, 1996; Eisenberg et al., 1989; Baumeister & Tice, 1990; Csikszentmihalyi, 1992; Argyle & Lu, 1990; Furr & Funder, 1998) would likely affect job performance as well as a person's ability to obtain and maintain employment insofar as getting and keeping a job depends on successfully navigating social interactions.

### **The Impact of Axis II on Psychosocial Functioning: Theory and Research**

There is ample epidemiological research evidence to suggest that psychiatric disorders are highly correlated with impaired occupational and social functioning (Spitzer et al., 1995; Broadhead, Blazer, George, & Tse, 1990; Hecht, Zerssen, & Wittchen, 1990; Kessler & Frank, 1997) just as there is research evidence to suggest that higher levels of unemployment are associated with higher rates of psychiatric symptomatology (Banks & Jackson, 1982; Krahn, Lowe, Hartnagel, & Tanner, 1987; Linn, Sandifer, & Stein, 1985; Kessler, Turner, & House, 1987a; Kessler, Turner, & House, 1987b). In particular, the presence of Axis II pathology (personality disorders) seems to have the most profound impact on psychosocial functioning (Bender et al., 2001; Gunderson et al., 2000; Skodol et al., 2002; Ormel et al., 1994; Spitzer et al., 1995).

A personality disorder, located on Axis II of the multiaxial diagnostic system of the Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> Edition, Text Revision (DSM-IV-TR), is defined as an “enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual's culture, and is manifested in at least two of the following areas: cognition, affectivity, interpersonal functioning, or impulse control” with the pattern being described as “inflexible and pervasive across a broad range of personal and social

situations” leading to “clinically significant distress or impairment in social, occupational, or other important areas of functioning” (American Psychiatric Association, 2000, p. 686).

In the DSM-IV-TR, personality disorders are organized into three clusters: Cluster A, which includes paranoid, schizoid and schizotypal disorders; Cluster B, which includes antisocial, borderline, histrionic, and narcissistic personalities and; Cluster C, which is comprised of avoidant, dependent, and obsessive-compulsive personalities. The diagnosis of “Personality Disorder Not Otherwise Specified” exists as a separate category and is applied when the “individual’s personality pattern meets the general criteria for a Personality Disorder” but without meeting criteria for any specific personality disorder or when the individual is considered to have a personality disorder not represented in the classification system (e.g. passive-aggressive personality disorder).

Although the prevalence of personality disorders is only 10-18%, individuals with these diagnoses can present a disproportionate social burden due to extensive and repeated use of various mental health resources, the chronicity and negative interpersonal impact of their symptoms, and increased likelihood of co-morbid Axis-I disorders (Bender et al., 2001; Gunderson et al., 2000; Skodol et al., 2002). Research indicates that personality disordered individuals are more likely than individuals without personality disorder diagnoses to have global functioning impairment including difficulties in their interpersonal life as well as in their employment history (Skodol et al., 2002).

In a study examining the relationship between Axis-II diagnosis and impairment in psychosocial functioning Skodol, Oldham and colleagues (2005) found that the of the 668 subjects with mental health diagnoses, those with personality disorders were significantly more impaired ( $p < 0.0001$ ) in virtually all the domains of employment, social relationships with

parents and friends, and global social adjustment than were those patients with major depressive disorder and no personality disorder. In another study examining the relationship between mental disorder and impaired functioning, the researchers (Spitzer et al., 1995) found that mental disorders were associated with impaired role and social functioning whereas alcohol use disorders were not.

Similarly, in a comparison of functioning between individuals diagnosed with borderline personality disorder to those with other personality disorder (OPD) or mood and anxiety disorder diagnoses (MAD), Ansell and colleagues (2007) found that, while those with borderline personality disorder (BPD) had more significant impairments in social functioning than did those in the other two groups, all three groups were significantly more socially impaired than the healthy control group. Ratings of Global Assessment of Functioning (GAF) scores revealed that the BPD group had a greater functional impairment than the MAD and OPD groups both of which had greater functional impairment than the control group. None of the three experimental groups had GAF scores that differed significantly from one another. Although surprisingly, the OPD group was not found to differ significantly from the control group in terms of work functioning (perhaps due to low group n of 24), both the BPD and MAD groups were found to be significantly more impaired in work performance than the control group.

Of 462 patients, 60% of whom were diagnosed with a personality disorder, Norén and colleagues (2007) found that on both subjective and objective measures, those patients with personality disorders evidenced greater vulnerability and suffering across domains including interpersonal relationships and financial stability. In spite of similarities in occupational and educational backgrounds between the personality disordered and non-personality disordered patients, those with personality disorder had significantly greater difficulty in maintaining stable

and permanent employment. This group was also significantly more likely to draw less than 25% of their wages from income or salary and had a significantly lower standard of living overall. These striking differences in functioning led the researchers to call for future studies further examining the impact of co-morbidity between Axis II and Axis I disorders, with a view towards improving psychosocial rehabilitation, social support and vocational training.

Johnson and colleagues (2005) found that, indeed, co-morbidity of Axis II with Axis I diagnoses was more likely in a sample of young adults with personality disorder not otherwise specified as compared to a sample without personality disorder diagnosis. These individuals were also found to be at higher risk for interpersonal problems including aggression against others, educational failure as well as the development of additional psychiatric disorders. Interestingly, young adults with personality disorder not otherwise specified were found to be just as likely to experience these adverse outcomes as were those with Cluster A, B or C personality disorders.

The impact of psychiatric co-morbidity was also demonstrated on a large scale in a World Health Organization (WHO) (Ormel et al., 1994) study which found that primary care patients with single mental disorder diagnoses reported greater occupational and physical disability than did those without a mental disorder whereas patients with more than one mental disorder reported greater disability than both those without diagnoses and those with only one mental disorder. In confirmation of these findings, Olfson and colleagues (1997) found that patients with co-occurring mental disorders reported significantly higher disability in social and occupational functioning as compared to those with only one or no disorders.

Still other studies have documented the ongoing impact of these disorders on psychosocial functioning (Skodol, Johnson, Cohen, Sneed & Crawford, 2007; Hong et al., 2005).

The results of these studies indicate that not only can the presence of a personality disorder impact one's current functioning, but that these effects can extend for well beyond the period of initial diagnosis. In a longitudinal study, 658 individuals were interviewed a fourth time when they were approximately 33 years old (Skodol et al., 2007). Of these individuals, those with persistent disorder (i.e. diagnosed by age 22 with diagnosis persisting at 33) had significantly lower Global Assessment of Functioning (GAF) scores with moderate to severe impairment in functioning as compared to other groups. Mean impairment scores for the persistent personality disorder group (mean=58.73) were twice as high as for those who had never experienced a personality disorder. Those whose personality disorder was in remission by age 33 had lower GAF scores but had higher impairment than those who had never met criteria for personality disorder at any of the assessment points although the impairment was relatively mild (mean GAF score=72.92) and tended not to be significant. Those individuals with adult onset personality disorder (first diagnosis at 33 years old) were impaired at a higher level (mild to moderate: mean GAF score=64.93) than those whose disorder was in remission but at a lower level than those with persistent disorder. Another longitudinal study revealed that, at a fifteen-year follow-up of individuals who had been diagnosed with a personality disorder in 1981, researchers found that, for all of the 292 individuals re-examined, the personality disorder scales measured at Time 1 were inversely related to functioning 13-18 years later (Hong et al., 2005). After controlling for co-morbid Axis I disorders, only schizoid, antisocial, borderline, histrionic, and avoidant personality traits had long-term effects on functioning.

### **Conclusion: Implications for the Present Study**

The object relations research described in this chapter largely suggests that trauma and deprivation are associated with lower scores on the Social Cognition and Object Relations Scale

(SCORS; Westen et al., 1991) which, in turn, are associated with greater degree of interpersonal difficulties. Given the understanding that frightening, traumatic and non-nurturing caregiving experiences negatively imbue expectations of interactions with others, making it difficult to take multiple perspectives or to appreciate the complex and abstract elements of human reasoning and behavior, we expected that the research participants, whose histories are often overwhelmingly chaotic and traumatic, would have less than optimal object relations functioning and that this deficit would have a potentially serious impact on the psychosocial skills necessary to obtain and retain employment.

Overall, the mentalization/reflective functioning literature reveals that the caregiver's capacity for mentalization, not only fosters his/her child's mentalizing abilities, but also promotes a securely attached relationship. Additionally, RF scores have been found to be particularly low in patients with Axis II disorders as well as those with a history of abuse. Prevalent among the population of the present research are stories of familial abuse, domestic violence, and childhood deprivation. Given these histories and given the high rates of Axis II disorders found in previous research conducted at the job training site from whence this study's population was recruited (Wright, Chambers, & The HOPE Staff, 2008), we expected to find low RF among this study's population.

The finding that high RF can promote secure attachment in the child even in the presence of significant social deprivation in the mother's history is particularly relevant to the current study in that not only does it support previous findings that RF and security are transmitted inter-generationally, but also that RF can serve a protective function in the face of deprivation and adverse circumstances. Given the obvious deprivation among the unemployed and impoverished population of the present study, this finding supports our hypothesis that those in this population

with higher RF were likely be more resilient and thus to have more successful outcomes than those with lower RF. Given our empirically based understanding that RF confers secure attachment and that secure attachment promotes stable interpersonal relationships and effective emotion regulation strategies, it seemed reasonable to expect that the presence of higher RF among this study's population might serve as a sufficient protective factor against the deprivation that is common to this group.

We expected that RF might impact employment outcomes in several key ways. Given our understanding that RF underlies our ability to accurately read the emotional state of others and to use that information to guide behavior and given that these skills are utilized in obtaining and maintaining employment, individuals with low RF are likely to have difficulty parsing the interpersonal exchanges necessary to achieve positive employment outcomes. For example, in an interview setting a job applicant might identify that he is feeling anxious and then read the effect of his anxiety on the interviewer who he perceives to be uncomfortable. Having accurately identified his emotional state (anxiety) as well as the emotional state of the interviewer (discomfort), the applicant might then seek to regulate his anxiety by taking mental perspective (e.g. "this is only an interview"), and by taking a deep breath and slowing his rate of speech. These adjustments alter the applicant's behavior by helping him to reduce his anxiety as well as to appear less anxious to the interviewer. In turn, the interviewer is made less uncomfortable and the applicant makes a favorable impression, ultimately contributing to the interviewer's decision to hire the applicant. Similarly, the ability to accurately read others as well as to effectively regulate one's emotional responses would seem essential to navigating and resolving the various interpersonal conflicts that inevitably arise on the job. By demonstrating the impact of RF on employment, we hope to design and employ mentalization-based psycho-

educational interventions at the HOPE Program that can be scaled and manualized for use at job readiness training programs across the country.

There is ample evidence to suggest that psychopathology, in particular Axis II personality disorder, negatively impacts psychosocial functioning, including that related to employment domains (Bender et al., 2001; Gunderson et al., 2000; Skodol et al., 2002; Ormel et al., 1994; Spitzer et al., 1995). Given the finding of higher rates of psychiatric diagnoses among the unemployed, we expected the unemployed sample of this study to mirror this larger population in evidencing psychiatric, in particular, personality disorder dysfunction. Given the particularly pervasive difficulties in psychosocial functioning associated with Axis II diagnoses (Skodol et al., 1995), we expected that the participants with Axis II diagnoses in the present research would have greater difficulties obtaining and maintaining employment than those with Axis I or no psychiatric diagnoses.

### **Current Questions**

In this investigation the relationships between object relations (OR), Reflective Functioning (RF), and Axis II pathology and their respective as well as combined impact on an individual's ability to obtain and retain employment (job outcome) were explored using data from interview narratives, projective responses and a pencil and paper measure assessing Axis II psychopathology. Given the intertwining nature of these constructs, it was expected that correlations would exist between OR, RF and Axis II pathology. The documented impact of each of these constructs on the ability to establish and negotiate productive interpersonal relationships led us to predict that they would also be related to job outcome such that those with low OR and RF or those with Axis II pathology would experience greater difficulty in completing the job training program let alone obtaining and maintaining employment.

This research study posed additional research questions to more closely examine the nature of these relationships. First, it examined the extent to which each of these variables accounted for the variance in job outcome. Second, to the extent that an individual's representational model informs the capacity for RF and that this capacity, in turn, underlies the ability to work harmoniously with others and to be sensitive to others, we sought to examine the extent to which the predicted correlation between OR and job outcome might be moderated or mediated by the degree of RF present. In other words, although it seems unlikely that an individual with poorly differentiated OR could have developed a strong capacity for RF, this study aimed to examine the possibility that, should such cases exist, the presence of a higher capacity for RF would offset the negative effects of poorly differentiated OR score or, conversely, a lower capacity for RF would negatively impact job outcome despite the presence of reasonably differentiated OR. Additionally, we sought to examine the degree to which the predicted relationship between OR and job outcome might also be moderated or mediated by the presence of an Axis II diagnosis such that an individual with significant psychopathology would be expected to have poor job outcome regardless of OR scores. Similarly, we also aimed to investigate the degree to which higher RF scores might moderate or mediate the predicted effect of Axis II pathology on job outcome. For example, although it again seems unlikely that an individual with personality psychopathology would possess a significant capacity for RF, this study sought to examine whether, in the event that this were true, the proposed correlation between Axis II pathology and poor job outcome would be moderated or mediated by the presence of higher RF such that those with a more developed capacity for RF would have better job outcome despite the presence of Axis II pathology.

### **CHAPTER THREE - METHODOLOGY**

#### **Participants:**

The student body at The HOPE Program (HOPE), an intensive job-readiness training program, is comprised of low-income, unemployed men and women of whom approximately 52% are female and 48% are male. Approximately 72% of the students enrolled are African-American, 22% Latino and 7% Caucasian with a mean age of 35 (HOPE, 2006). Students between the ages of 21 to 45 were eligible for inclusion in the study. Individuals were excluded from the study if they were outside of this age range or had chronic medical illness or with major mental illness (as defined by presence of active psychosis). As HOPE does not accept students to its training program who are actively abusing drugs or alcohol or have done so within four months prior to admission, the pool of research participants also reflected this exclusion criterion. The research sample includes forty-one participants and, consistent with the larger population, the mean age of the participants is 37.44, 46% are female, 54% are male, 64% are Black, 24% are Hispanic, 7% are Caucasian and 5% are Other Race.

The present study received Institutional Review Board approval and clearance. Consistent with IRB requirements, a consent form was provided to the participants that outlined the voluntary nature of their participation and provided assurance that the results of the research would in no way affect their progress through the program and that they could elect not to answer questions they did not wish to and to discontinue their participation at any time.

All participants were debriefed on the testing results. During the individual feedback sessions, which lasted about 15 minutes each, the results of the testing were shared with the participants and presented in terms of personality relative strengths and weaknesses relevant to

employment. In keeping with customary practice at HOPE, the participant was offered support and psychotherapy treatment in the event it seemed indicated by the testing results and/or where the participant expressed an interest in such treatment.

**Procedure:**

The testing battery was administered to the research participants in the present study as part of a personality assessment required by the job-readiness training program at which they were enrolled. At the outset of testing, HOPE students who met the eligibility requirements were presented with the option to participate in the research. During the clinical interview which took place at the job readiness training site, participants were asked a series of questions regarding their family and work backgrounds. A subset of 6 questions from the Adult Attachment Interview (George et al., 1984) included in the HOPE clinical interview were used for assessment of Reflective Functioning (RF) using the RF scale designed by Fonagy and colleagues (Fonagy et al., 1998).

Following the clinical interview, a five-card subset including cards 1, 4, 5, 13MF, and 18 BM of the Thematic Apperception Test (TAT) (Murray, 1938) was administered to all participants. The participants' TAT protocols were scored for quality of self and object relationships using Westen's (1995) Social Cognition and Object Relations Scale (SCORS-G; Hilsenroth, Stein, & Pinsker, 2004 ).

The diagnostic measure used to assess character pathology as well as the presence of clinical syndromes is the MCMI-III (Millon Clinical Multiaxial Inventory-III, 1994). This self-report true/false questionnaire, designed to distinguish more enduring personality characteristics and disorders of patients (Axis II) from the acute clinical disorders they display (Axis I), was administered to participants in a classroom setting and took about 30-40 minutes to complete.

An interpretive report was generated that, together with the clinical interview and projective data obtained, was used to make psychiatric diagnoses if indicated.

In order to establish employment outcome, participants' progress was tracked from the time of admission through to 90-days post job placement for those students who successfully completed job training. Successful outcome was defined as meeting any one or all of the following three criteria:

1. Completion of the 12-week job training program culminating in graduation (“Program Completion”);
2. Placement in a job following program completion (“Job Placement”); and,
3. Retention of the job for a period of at least 90 days (“90-day Retention”).

### **Materials/Instruments**

#### **HOPE Clinical Interview:**

The HOPE clinical interview is comprised of questions regarding the students' family backgrounds and history as well as items reflecting their attitudes and beliefs regarding their present circumstances (see Appendix A). The questions within this interview to be scored for RF represent a six-question subset of the Adult Attachment Interview (George et al., 1984) as follows:

1. Why do you think your parents/primary caregivers behaved the way they did during your childhood?
2. Did you ever feel rejected as a kid?
3. Have there been changes in your relationship with your parents/primary caregiver over time?

4. Do you think your experiences growing up have an influence on who you are today?
5. Thinking about one of the worst experiences you've gone through (i.e., loss/abuse/ trauma), how did you feel at the time and how have your feelings changed since then?
6. What would you say have been your setbacks—the problems standing in the way of getting what you want?

Adult Attachment Interview (AAI) (George, Kaplan & Main, 1984):

The Adult Attachment Interview is a semi-structured interview designed to assess the quality of an adult's representation of early attachment experiences with his or her parents and/or caregivers. The interview includes questions about relationships with family of origin as well as questions that elicit the interviewee's current state of mind regarding these significant relationships and their impact on his/her development. Stability and discriminant validity of the AAI have been demonstrated in several studies (Bakermans-Kranenburg & Van IJzendoorn, 1993; Benoit & Parker, 1994; Sagi et al., 1994).

The six AAI questions incorporated into the HOPE clinical interview (described above) were chosen in accordance with Fonagy and colleagues' Reflective Functioning Training Manual (Fonagy et al., 1998) which specifies these questions as the "demand" questions for scoring reflective functioning and are distinguished from other questions which "permit" rather than "demand" the speaker to demonstrate his/her "reflective-self capacities" (p. 37). In the present study, the HOPE clinical interview was designed according to the guidelines set forth in this manual such that the 6 demand questions are scored for RF with the remaining questions acting as "permit" questions that are taken into account in the overall scoring of the interview.

Reflective Function (RF) Scale (Fonagy, Target, Steele & Steele, 1998):

The RF scale is a coding system originally designed for use with the AAI narrative (Fonagy, Steele & Steele, 1991), that measures an individual's ability to reflect on his own as well as others' mental states in narrative descriptions of behavior and reactions of self and other in an interpersonal context. Each passage in the AAI interview is scored on an 11-point scale ranging from negative RF (-1) to Full or Exceptional RF (9) based on demonstration of criteria such as awareness and nature of self and other's mental states, the recognition of limitations on insight and a capacity to demonstrate awareness of diverse perspectives. In arriving at an overall interview score, the rater takes into account the individual scoring of each passage as well as the quality of the entire interview.

The reliability and validity of the RF scale has been demonstrated in several studies. Discriminant validity is demonstrated in the distinct lack of significant relationships found between RF and demographic characteristics with the exception of level of education and vocabulary scores where the correlations were relatively low ( $r=.35$  and  $r=.30$ , respectively) (Fonagy et al., 1991). Additional psychometric analysis revealed that, while the RF scale was related to several psychometric instruments, including Epstein's Mother-Father-Peer Scale, the Eysenck Personality Questionnaire, the Langner 22 and the Sources of Self-Esteem Inventory, none of these associations were significant, providing strong evidence that RF is a unique construct.

In rating 200 prenatal interviews, Fonagy et al. (1991) found interrater reliabilities of coded narratives to be relatively high, with a median reliability of .70 for the mothers' interviews and .75 for the fathers' interviews. In Lis, Zennaro, and Mazzeschi's (2000) study of reflective functioning in expectant couples, interrater reliabilities were also high, ranging from .80 to .92

for identification and rating of passages as well as global ratings of RF. The judges who scored the interviews in the present study attained reliability in scoring RF during a year-long training under the direction of Arietta Slade, Ph.D., the first author of the RF manual addendum (Slade, Bernbach, Grienenberger, Levy, & Locker, 2004) for use with the Parent Developmental Interview (PDI) (Aber, Slade, Berger, Bresgi, & Kaplan, 1985). The training encompassed the study of the constructs and measures used in Fonagy et al.'s (1991) RF manual as well as Slade et al.'s (2004) RF manual for the PDI. To attain inter-rater reliability, the coders, led by Slade, began by reading, discussing and scoring a training set of four interviews. Next, coders independently scored a reliability master set of ten interviews previously scored by Slade. Coders' independent scores were then compared to the original master set scores and any discrepancies in scoring were discussed and resolved within the group under Slade's leadership. In the final phase of training, coders again independently scored a second reliability set of five interviews. The scores from both sets were used to determine inter-rater reliability with all coders in the training program achieving an acceptable level of reliability on global ratings (.80). The clinical interviews for the present study were scored by the principal investigator who was one of the advanced doctoral students in the training program described above. For the purposes of attaining inter-rater reliability, eight of the clinical interviews were chosen at random to be scored in sets of four apiece by two other advanced doctoral students and members of the original training team. These scores, both for individual passages and for overall interviews, were compared with those previously assigned by the principal investigator. Items that yielded discrepant scores were reviewed and discussed as a team and then resolved in order to achieve inter-rater reliability (100% agreement on overall RF scores).

Thematic Apperception Test (TAT) (Murray, 1943):

The Thematic Apperception Test (TAT) (Murray, 1943) has been a widely used projective assessment tool for decades and has retained its status among the most common projective techniques in use today (Rossini & Moretti, 1997). The TAT, designed for use with individuals aged 10 and above, is comprised of 30 black and white illustrations and one blank card. The illustrations are intentionally ambiguous in order to access the individual's unconscious as well as conscious associations and representations related to the scenes depicted. Although the full set contains 31 cards, the examiner typically selects a subset of cards to administer to a particular respondent. Generally, this selection does not exceed 12 cards. In the present study, a subset of 5 cards was selected as follows: 1, 4, 5, 13MF, and 18 BM. The cards in this subset are administered as part of the standard job readiness assessment at the HOPE Program, the job-readiness training program attended by the participants in the present study's sample, and were selected for their potential relevance to the job readiness context. Of particular interest in the job readiness context is the individual's relationship to themes of achievement and interpersonal conflict as well as the individual's ability to tolerate ambiguity and to think flexibly and creatively.

The administration procedure calls for the examiner to present the chosen cards one at a time. The respondent is asked to make up a story about the picture and to include in the story what has led up to the scene depicted in the card, what is happening now, what will happen next and what the characters are thinking and feeling. As the examinee provides responses, the examiner takes verbatim notes. The verbatim transcript constitutes the TAT protocol, which is later analyzed and interpreted by the examiner.

Traditional, non-quantitative scoring of the TAT requires the clinician to interpret based on inferences about the attitudes, conflicts and internal world of the examinee as revealed in his responses. The subjective nature of TAT interpretation, combined with the variation in number and kind of stimulus cards selected poses a challenge to the usual methods of establishing validity and reliability. Notwithstanding, several authors (Alvarado, 1994; Kelser & Prather, 1990; Lundy, 1985) have reviewed the reliability and validity of this instrument. Test-retest reliability, though difficult to establish due to potentially confounding memory factors, was found by Lundy (1985) to range from .48 to .56 after a one-year interval. In a study of empirical validity, Alvarado (1994) found that examiners/subjects achieved consensus both on the cognitive meaning and the emotional response evoked by various TAT stimulus cards. In general, interrater reliability using interpretive methods has been found to be high when interpretive criteria are clearly specified and evaluators are well trained in the scoring technique (Karon, 1981).

In the nineties, a quantitative scoring technique for the TAT, the Social Cognition and Object Relations Scale (SCORS), was developed by Westen (1995) that, since its inception, has since been subjected to rigorous reliability and validity testing. The robustness of the measure and its utility in measuring internalized object representations contributed to its selection for use in the present study.

Social Cognition and Object Relations Scale (SCORS) (Westen, 1995):

The Social Cognition and Object Relations Scale (SCORS) in its most recent incarnation (Westen, 2002) is a quantitative scoring system that assesses TAT protocols along six dimensions of object relations: 1) Complexity of Representations, 2) Affect-Tone of Relationship Paradigms, 3) Capacity for Emotional Investment in Relationships, 4) Capacity for Emotional

Investment in Values and Moral Standards, 5) Understanding of Social Causality, and 6) Dominant Interpersonal Concerns. Each dimension is scored along a 7-point Likert scale with Level 1 representing a relatively primitive internal object representational world and Level 7 representing one that is more mature and differentiated.

The original SCORS was based on a five-point scaling system. In order to increase sensitivity of the instrument, the original SCORS instrument was revised around a Q-sort procedure (SCORS-Q) that required extensive training and time on the part of the raters (Westen, 1995). In 1995, as part of a survey of psychologists and psychiatrists regarding the assessment of personality functioning of patients in their caseloads, Westen included a briefer “global” rating of the SCORS dimensions for ease in data collection for the survey. Since that time, and in cooperation with a group of psychologists based at Adelphi University, Westen has overseen the parallel development of the SCORS-G rating scale and training manual (Hilsenroth, Stein, & Pinsker, 2004), conceptually based on the original SCORS instrument but with a slightly different scoring method, designed for greater efficiency in administration and scoring. This manual has been used in the scoring of the data for the present study, and includes all but the 6<sup>th</sup> and most recently added (Dominant Interpersonal Concerns) of the dimensions listed above for scoring of projective data. Following is a brief overview of the 5 dimensions, as described by Westen, that appear in both the SCORS-Q and the SCORS-G.

The Complexity of Representations scale assesses the extent to which the respondent is able to clearly differentiate the perspectives of self and others and to recognize the complexity of differing personalities and subjective experiences. At the lowest levels of this scale, TAT responses reflect an “egocentric” perspective that fails to clearly differentiate thoughts, attitudes

and feelings of self from others while at the highest levels responses reflect a psychological-mindedness and an insight into the complex motives and subjective states of self and others.

The measure of Affect-Tone of Relationship Paradigms captures the affective coloring of the internal object world ranging on a continuum from malevolent to benevolent. It was designed to assess the extent to which an individual expects relationships with others to be abusive, destructive and hostile as opposed to “generally positive” and affirming though not “pollyannish”.

The Capacity for Emotional Investment in Relationships measures the degree of emotional investment in interpersonal relationships. At the lower end of the continuum, relationships are characterized as tumultuous and tend to reflect a shallow or selfish preoccupation with the individual’s own needs and desires at the expense of the other. The higher end of the continuum reflects an appreciation and respect of others and an engagement in relationships that are mutual, committed and interdependent.

The Capacity for Emotional Investment in Moral Standards, only fairly recently defined as a separate category, (Westen, 2002) reflects a similar continuum that moves from selfishness to increasing mutuality. At the lowest level, the individual demonstrates a selfish lack of concern for the welfare of others, behaving aggressively and without guilt or remorse while at the highest level, the individual can reflect in a nuanced way on moral questions and is capable of genuine compassion and thoughtfulness.

The measure of Understanding of Social Causality was designed to assess the logic, complexity and accuracy of attributions about others and about social behavior, in general. Low-level responses are characterized by disoriented and confused accounts of interpersonal interactions that are grossly illogical or difficult to follow. At increasing levels, respondents

make accurate attributions that move from simplistic to more complex assessment of motivations, thoughts, and feelings (conscious and unconscious) and reflect an understanding of how these combine to impact an individual's behavior.

#### Reliability and Validity of the SCORS:

The validity of the SCORS has been demonstrated across multiple domains. In a study examining whether the Complexity, Emotional investment, and Social Causality scales would demonstrate the expected developmental differences consistent with theory, Westen and colleagues (Westen, Klepser et al., 1991) found that, indeed mean scores on these dimensions were higher for fifth graders than second graders, and higher for twelfth graders than ninth graders. Consistent with object relations theory and with the hypotheses of the researchers, mean differences between age groups on the Affect-Tone dimension were not found to be statistically significant.

In a demonstration of construct validity, Westen, Ludolph et al, (1990) found that a history of developmentally significant and negative childhood events such as prolonged separation from parents or experiences of neglect predicted low object relations scores as assessed in adolescence. In other studies, the SCORS measure has been found to effectively differentiate between different forms of psychopathology and accurately distinguish individuals with significant psychopathology from controls. Ackerman et al. (1999) found that SCORS accurately differentiated Antisocial, Borderline and Narcissistic personality disorders while Westen, Lohr et al. (1990) found that those diagnosed with borderline personality disorder had significantly lower scores on SCORS scales than did normal and other psychiatric comparison subjects.

Reliability and validity have also been established using the SCORS-G (Hilsenroth et al.,

2004) in a series of studies rating the TAT narratives of Axis II patients (Ackerman, Clemence, Weatherill, & Hilsenroth, 1999; Ackerman, Hilsenroth, Clemence, Weatherill, & Fowler, 2000). The SCORS-G has also demonstrated reliability and clinical utility in the assessment of relational narratives told in both psychological assessment and psychotherapy contexts (Callahan, Price, & Hilsenroth, 2003; Peters, Hilsenroth, Eudell, & Blagys, 2004; Price, Hilsenroth, Callahan, Petretic-Jackson, & Bonge, 2004) as well as from early memories (Pinsker, Stein, & Hilsenroth, in press) and dreams (Eudell, Stein, DeFife, & Hilsenroth, 2004).

The SCORS has consistently demonstrated good inter-rater reliability under conditions where coders are properly trained with the use of detailed manuals. In these cases, reliability has been as high as .80 to .95 (Westen et al., 1991). The judge who provided the SCORS ratings in the present study attained reliability in SCORS-G scoring under the direction of Mark Hilsenroth, Ph.D., with whom she co-authored the Social Cognition and Object Relations Scale – Global Rating Method (SCORS-G) Training Manual (Hilsenroth, Stein, & Pinsker, 2004) for use with projective as well as narrative data. Inter-rater reliability was established by having a second judge, an advanced doctoral candidate from Dr. Hilsenroth's lab at Adelphi University, score a random 20 of the 41 TAT protocols. For each scale, Pearson product-moment correlations between the raters were as follows: Complexity,  $r = .57$ ; Affect,  $r = .87$ ; Emotional Investment in Relationships,  $r = .60$ ; Emotional Investment in Values and Moral Standards,  $r = .67$ ; and Understanding of Social Causality,  $r = .80$ . Complexity and Emotional Investment in Relationships had the lowest variance of all the scales in the coding of both judges, reflecting homogeneity of these scales, consistent with the factor analysis findings, and most likely accounting for lowered reliability values (Nunnally, 1978).

### Million Clinical Multiaxial Inventory-III (MCMI-III) (Millon et al., 1994)

The MCMI-III is a self-administered 175-item, true/false questionnaire that gathers information related to clinical syndromes, personality styles, and disorders. Standard scores are established based on existing base rates (BR) of diagnoses present in the psychiatric normative sample which is thought to be an improvement over T-scores that are premised on an assumption that the scores are normally distributed (Millon et al., 1994). A BR of 85 or greater indicates the presence of a clinically significant disorder/primary diagnosis while a score of 75-84 suggests the presence of clinically significant symptoms of the disorder without meeting the threshold for diagnosis.

The MCMI-III utilizes three modifying indices, Disclosure, Desirability, and Debasement that measure test-taking attitudes. For example, the disclosure scale tracks the frankness vs. guardedness of the testee's response style. Scores on this scale are factored in to the BR score causing it to adjust up or down depending on response style, in an effort to better represent the individual's true profile by correcting for the degree of disclosure or lack thereof. The Desirability and Debasement scales are used in the same way and adjust BR scores according to the degree that an individual desires to be seen in a good light or exhibits a tendency to demean himself, respectively. Significantly inflated scores on any of these scales or on the Validity score invalidate the testing protocol.

The MCMI-III's reliability was demonstrated using internal consistency measures (alpha coefficient) as well as test-retest procedures. The alpha coefficients of the clinical scales ranged from .66 to .90 with alphas exceeding .80 for 20 of the 24 scales (Millon & Davis, 1997) representing a significant improvement over prior versions of the test (Hsu, 2005). The test-

retest reliability scores for each scale range from .82 to .96 with a median stability coefficient of .91.

External measures of validity include correlations with similar diagnostic constructs on other established instruments including the single-dimension symptom inventory, the Beck Depression Inventory (Beck & Steer, 1993) to comprehensive personality inventories like the MMPI-2 (Butcher, Dahlstrom, Graham, Tellegen & Kaemmer, 1989). These studies utilized both raw scores and BR scores in assessing correlations, which were found to be significant and consistent with theory.

The MCMI-III's brevity, ease of administration, and relatively strong theoretical and statistical basis makes it one of the most popular instruments used for assessment of personality disorders and is widely accepted as an effective diagnostic assessment tool.

### **Hypotheses and Research Questions**

#### ***Hypothesis 1:***

Object relations (OR) scores, Reflective Functioning (RF) scores and Axis II pathology were predicted to be correlated with one another as follows:

#### **Object Relations (OR) and Reflective Functioning:**

- a) OR scores were predicted to be positively correlated with RF scores as determined by Pearson product-moment correlation.

#### **Object Relations (OR) and Axis II Diagnosis:**

- b) OR scores were predicted to be negatively correlated with presence of Axis II diagnosis as determined by point-biserial correlation, such that low OR scores would be associated with the presence of Axis II diagnosis.

Reflective Functioning (RF) and Axis II Diagnosis:

- c) RF scores were predicted to be negatively correlated with presence of Axis II diagnosis as determined by point-biserial correlation, such that low RF scores would be associated with the presence of Axis II diagnosis.

***Hypothesis 2:***

Higher OR scores, higher RF scores and absence of Axis II pathology were predicted to be positively correlated with favorable job outcome as defined by completion of job readiness training program (Program Completion) and/or Job Placement and/or Job Retention.

Program Completion:

- a) OR scores were predicted to be positively correlated with Program Completion as determined by point-biserial correlation.
- b) RF scores were predicted to be positively correlated with Program Completion as determined by point-biserial correlation.
- c) It was predicted that there would be a significant association between the absence of Axis II pathology and Program Completion as determined by Fisher's Exact Test of Association.

Job Placement:

- d) OR scores were predicted to be positively correlated with Job Placement as determined by point-biserial correlation.
- e) RF scores were predicted to be positively correlated with Job Placement as determined by point-biserial correlation.
- f) It was predicted that there would be a significant association between absence of Axis II pathology and Job Placement as determined by Fisher's Exact Test of Association.

Job Retention:

- g) OR scores were predicted to be positively correlated with Job Retention as determined by point-biserial correlation.
- h) RF scores were predicted to be positively correlated with Job Retention as determined by point-biserial correlation.
- i) It was predicted that there would be a significant association between absence of Axis II pathology and Job Retention as determined by Fisher's Exact Test of Association.

***Research Questions:***

1. The implementation of binary logistic regression analyses were proposed to determine the extent to which each of the independent variables would account for the variance in job outcome.
2. Should binary logistic regression analysis be found to indicate a predictive relationship between OR and job outcome (see Research Question 1), both moderation and mediation models of multiple regression would be performed to determine the extent to which these correlations might be moderated or mediated by Axis II diagnosis or by the degree of RF present.
3. Should Axis II pathology be found to predict job outcome (see Research Question 1), both moderation and meditation models of multiple regression would be performed to determine the extent to which these correlations might be moderated or mediated by the degree of RF present.

## **CHAPTER FOUR – RESULTS**

### **Preliminary Analyses:**

#### **Participants:**

Of the forty-one research participants, thirty-two completed the program and nine did not:

***Table One – Program Completion***

	Frequency	Percent	Cumulative Percent
Not Completed	9	22.0	22.0
Completed	32	78.0	100.0
Total	41	100.0	

Of the thirty-two participants who completed the program, twenty were placed in jobs and twelve were not:

***Table Two – Job Placement***

	Frequency	Percent	Cumulative Percent
Not Placed	12	29.3	37.5
Placed	20	48.8	100.0
Total	32	78.1	

Of the twenty participants who were placed in a job, sixteen retained their jobs for ninety days and four did not:

***Table Three – Job Retention***

	Frequency	Percent	Cumulative Percent
Did not Retain	4	9.8	20.0
Retained	16	39.0	100.0
Total	20	48.8	

Prior to performing the analyses required to assess the veracity/refutability of the present study's hypotheses, preliminary analyses were performed in order to examine the potential impact of participants' demographics (age, race, gender and high school completion) on the outcome variables; program completion, job placement and job retention. On the variable of age, there was no significant difference between those who completed the training program ( $M = 38.66$ ,  $SD = 12.28$ ) and those who did not ( $M = 33.11$ ,  $SD = 7.75$ );  $t(20.6) = -1.64$ ,  $p = .12$  (two-tailed). There was also no significant difference between those who were placed on jobs ( $M = 36.60$ ,  $SD = 11.90$ ) and those who were not ( $M = 42.08$ ,  $SD = 12.67$ );  $t(30) = 1.23$ ,  $p = .23$  (two-tailed), nor between those who retained jobs ( $M = 36.00$ ,  $SD = 11.43$ ) and those who did not ( $M = 39.00$ ,  $SD = 15.30$ );  $t(18) = 4.41$ ,  $p = .66$  (two-tailed).

As indicated in Table Four, there were no significant differences between those participants who completed the training program and those who did not with respect to race or high school completion status. Likewise, as indicated in Table Five, there were no significant differences between those graduating participants who were placed in jobs and those who were not with respect to race, gender, or high school completion status. As Table Six indicates, there were no significant differences between those employed participants who retained jobs for ninety days and those who did not with respect to race or gender. However, participants in this group did differ significantly with respect to high school completion status.

**Table 4 – Demographics and Program Completion**

<i>Group</i>	<i>Program Completion</i>	<i>Non-Completion</i>	<i>Chi Square Tests for Race</i>	<u>Value</u>	<u>df</u>	<u>Sig.</u>
Race			Pearson	1.804	3	.614
Black	20	6	Likelihood Ratio	2.848	3	.416
Hispanic	7	3	<i>Chi Square Tests for Gender</i>	<u>Value</u>	<u>df</u>	<u>Sig.</u>
Caucasian	3	0	Pearson	.785	1	.376
Other	2	0	Likelihood Ratio	.800	1	.371
Gender			<i>Chi Square Tests for High School Completion</i>	<u>Value</u>	<u>df</u>	<u>Sig.</u>
Male	16	6	Pearson	.636	1	.425
Female	16	3	Likelihood Ratio	.632	1	.427
High School						
Complete	19	4				
Non-complete	13	5				

**Table 5 – Demographics and Job Placement**

<i>Group</i>	<i>Job Placement</i>	<i>Non-Placement</i>	<i>Chi Square Tests for Race</i>	<u>Value</u>	<u>df</u>	<u>Sig.</u>
Race			Pearson	1.361	3	.715
Black	12	8	Likelihood Ratio	2.040	3	.564
Hispanic	4	3	<i>Chi Square Tests for Gender</i>	<u>Value</u>	<u>df</u>	<u>Sig.</u>
Caucasian	2	1	Pearson	.533	1	.465
Other	2	0	Likelihood Ratio	.535	1	.464
Gender			<i>Chi Square Tests for High School Completion</i>	<u>Value</u>	<u>df</u>	<u>Sig.</u>
Male	11	5	Pearson	2.496	1	.114
Female	9	7	Likelihood Ratio	2.495	1	.114
High School						
Complete	14	5				
Non-complete	6	7				

**Table 6 – Demographics and Job Retention**

<i>Group</i>	<i>90-Day Retention</i>	<i>Non-Retention</i>	<i>Chi Square Tests for Race</i>	<u>Value</u>	<u>df</u>	<u>Sig.</u>
Race			Pearson	3.333	3	.343
Black	10	2	Likelihood Ratio	3.657	3	.301
Hispanic	2	2	<i>Chi Square Tests for Gender</i>	<u>Value</u>	<u>df</u>	<u>Sig.</u>
Caucasian	2	0	Pearson	.808	1	.369
Other	2	0	Likelihood Ratio	.846	1	.358
Gender			<i>Chi Square Tests for High School Completion</i>	<u>Value</u>	<u>df</u>	<u>Sig.</u>
Male	8	3	Pearson	4.821	1	.028*
Female	8	1	Likelihood Ratio	4.493	1	.034*
High School						
Complete	13	1				
Non-complete	3	3				

Preliminary analyses were also performed in order to examine the potential impact of participants' demographics (age, race, gender and high school completion) on the independent variables; Reflective Functioning, Object Relations (each of the five subscales of the SCORS-G) and Axis II Diagnosis:

Demographics and Reflective Functioning:

On the variable of gender, there was no significant difference in RF scores between men ( $M = 2.45$ ,  $SD = 1.22$ ) and women ( $M = 2.21$ ,  $SD = 1.03$ );  $t(39) = .684$ ,  $p = .50$  (two-tailed). However, there was a significant difference in RF scores between those who were high school dropouts ( $M = 1.94$ ,  $SD = 1.06$ ) and those who were not ( $M = 2.65$ ,  $SD = 1.11$ );  $t(39) = 2.07$ ,  $p$

= .04 (two-tailed). The magnitude of the differences in the means (mean difference = .71, 95% CI: .015 to 1.40) was moderate (eta squared = .09).

A one-way between groups analysis of variance was conducted to explore the impact of age on levels of Reflective Functioning (RF), as measured by the RF scale. Subjects were divided into three equal groups according to their age (Group 1: 18-29yrs; Group 2: 30-46yrs; Group 3: 47yrs and above). There was no significant difference in RF scores between the three age groups:  $F(2, 38) = .19, p = .83$ . A one-way between groups analysis of variance was also conducted to explore the impact of race on levels of RF. There was no significant difference in RF scores between the four racial categories (Black, Hispanic, Caucasian, Other):  $F(3, 37) = .94, p = .43$ .

#### Demographics and Object Relations:

As indicated in Table 7, there was no significant difference in any of the five Object Relations subscales between men and women:

**Table 7 – Object Relations and Gender**

<i>Group</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t-value</i>	<i>Sig. (two-tailed)</i>
Complexity of Representations					
Men	3.03	.387	39	.740	.46
Women	2.93	.486			
Affective Quality of Representations					
Men	3.40	.370	39	.884	.38
Women	3.28	.468			
Emotional Investment in Relationships					
Men	3.04	.541	39	.023	.98
Women	3.04	.375			
Emotional Investment in Values/Morals					
Men	3.73	.305	39	.109	.91
Women	3.74	.284			
Understanding of Social Causality					
Men	2.81	.484	39	.262	.79
Women	2.77	.509			

As indicated in Table 8, there was no significant difference in any of the five Object Relations subscales between those who were high school dropouts and those who were not:

***Table 8 – Object Relations and High School Drop-Out Status***

<i>Group</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t-value</i>	<i>Sig. (two-tailed)</i>
Complexity of Representations					
High School Dropout	2.97	.496	39	.179	.86
High School Graduate	3.00	.388			
Affective Quality of Representations					
High School Dropout	3.29	.395	39	.776	.44
High School Graduate	3.39	.437			
Emotional Investment in Relationships					
High School Dropout	3.08	.491	39	.408	.67
High School Graduate	3.02	.455			
Emotional Investment in Values/Morals					
High School Dropout	3.71	.259	39	.395	.69
High School Graduate	3.75	.320			
Understanding of Social Causality					
High School Dropout	2.83	.541	39	-.494	.62
High School Graduate	2.76	.455			

A one-way between groups analysis of variance was conducted to explore the impact of age on levels of Object Relations, as measured by the SCORS-G. Subjects were divided into three equal groups according to their age (Group 1: 18-29yrs; Group 2: 30-46yrs; Group 3: 47yrs and above). As indicated in Table 9, there were no significant differences in mean scores of four of the five Object Relations subscales between different age groups. However, there was a statistically significant difference at the  $p < .05$  level in Affective Quality of Representations scores for the three age groups:  $F(2, 38) = 3.5, p = .04$ . The effect size, calculated using eta squared, was .15, indicating a sizeable difference in mean scores. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Group 1 (18-29) differed significantly from Group 3 (47+). Group 2 (30-46) did not differ significantly from either Group 1 or Group 3.

***Table 9 – Object Relations and Age Group***

<i>Group</i>	<i>M</i>	<i>SD</i>
Complexity of Object Representations*		
18-29	2.77	.36
30-46	3.06	.52
47+	3.14	.34
Affective Quality of Representations		
18-29	3.15 <sup>a</sup>	.40
30-46	3.38 <sup>ab</sup>	.40
47+	3.54 <sup>b</sup>	.37
Emotional Investment in Relationships		
18-29	2.92	.41
30-46	3.12	.59
47+	3.11	.37
Emotional Investment in Values/Morals		
18-29	3.64	.39
30-46	3.72	.17
47+	3.85	.22
Understanding of Social Causality		
18-29	2.81	.48
30-46	2.77	.51
47+	2.79	.49
Means that do not share subscripts differ at $p < .05$ in the Tukey honestly significant difference comparison.		
<i>*Although differences between means on Complexity of Representations did not reach significance, they strongly trended in that direction (<math>p = .056</math>)</i>		

A one-way between groups analysis of variance was conducted to explore the impact of race (Black, Hispanic, Caucasian and Other) on levels of Object Relations, as measured by the SCORS-G. As indicated in Table 10, there were no significant differences in mean scores of three of the five Object Relations subscales between different racial groups. However, there was a statistically significant difference at the  $p < .05$  level in Emotional Investment in Relationships scores for the four racial groups:  $F(3, 37) = 3.6, p = .02$ . The effect size, calculated using eta squared, was .22, indicating a large difference in mean scores. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Group 3 (Caucasian) differed significantly

from both Group 1 (Black) and Group 2 (Hispanic). Group 4 (Other) did not differ significantly from Group 1, Group 2 or Group 3. There was also a statistically significant difference at the  $p < .05$  level in Understanding of Social Causality scores for the four racial groups:  $F(3, 37) = 3.1$ ,  $p = .04$ . The effect size, calculated using eta squared, was .20, indicating a large difference in mean scores. Post-hoc comparisons using the Tukey HSD test indicated that the mean score for Group 1 (Black) differed significantly from Group 3 (Caucasian). Group 2 (Hispanic) did not differ significantly from Group 1, Group 3 or Group 4. Group 4 (Other) did not differ significantly from Group 1, Group 2 or Group 3.

***Table 10 – Object Relations and Race***

<i>Group</i>	<i>M</i>	<i>SD</i>
Complexity of Object Representations		
Black	2.95	.40
Hispanic	2.90	.53
Caucasian	3.47	.30
Other	3.00	.00
Affective Quality of Representations		
Black	3.31	.45
Hispanic	3.34	.31
Caucasian	3.73	.50
Other	3.30	.14
Emotional Investment in Relationships		
Black	2.97 <sup>a</sup>	.44
Hispanic	2.98 <sup>ab</sup>	.40
Caucasian	3.80 <sup>c</sup>	.35
Other	3.20 <sup>abc</sup>	.28
Emotional Investment in Values/Morals		
Black	3.70	.33
Hispanic	3.76	.21
Caucasian	3.87	.23
Other	3.80	.28
Understanding of Social Causality		
Black	2.71 <sup>a</sup>	.43
Hispanic	2.88 <sup>abc</sup>	.53
Caucasian	3.47 <sup>bc</sup>	.30
Other	2.40 <sup>abc</sup>	.56
Means that do not share subscripts differ at $p < .05$ in the Tukey honestly significant difference comparison.		

Demographics and Axis II Diagnosis:

On the variable of age, there was no significant difference between those participants with Axis II Diagnoses (M = 37.88, SD = 12.20) and those without (M = 36.40, SD = 11.72);  $t(167) = -.373, p = .71$  (two-tailed). As indicated in Table 11, there were no significant differences between those participants with Axis II diagnoses and those without, with respect to race ( $X^2, [3, N=39] = 2.149, p > .05$ ) gender ( $X^2, [1, N=39] = .000, p > .05$ ) or high school completion status ( $X^2, [1, N=39] = 1.831, p > .05$ ).

**Table 11 – Demographics and Axis II Diagnosis**

<i>Group</i>	<i>Axis II Diagnosis</i>	<i>No Axis II Diagnosis</i>	<i>Chi Square Tests for Race</i>	<u>Value</u>	<u>df</u>	<u>Sig.</u>
Race			Pearson	2.149	3	.542
Black	15	10	Likelihood Ratio	2.193	3	.533
Hispanic	7	2	<i>Chi Square Tests for Gender</i>	<u>Value</u>	<u>df</u>	<u>Sig.</u>
Caucasian	1	2	Pearson	.000	1	1.00
Other	1	1	Likelihood Ratio	.041	1	.839
Gender			<i>Chi Square Tests for High School Completion</i>	<u>Value</u>	<u>df</u>	<u>Sig.</u>
Male	12	8	Pearson	1.831	1	.176
Female	12	7	Likelihood Ratio	2.921	1	.087
High School						
Complete	11	11				
Non- complete	13	4				

N=39\*

\*As two of the participants dropped out of training prior to diagnosis being made, N listed here reflects this difference. (Total sample N = 41)

### Object Relations (OR):

Scores on four out of the five subscales of the SCORS-G met the assumptions of normal distribution (Tabachnick & Fidell, 1989). The fifth subscale, Emotional Investment in Moral and Value Standards (EIM) was significantly negatively skewed and leptokurtic and so was reflected and inverse transformed. After transformation, the subscale met assumptions of normal distribution. Each of the subscales on the SCORS-G ranges from one to seven. Subscale scores in this data set ranged from a minimum of two to a maximum of four.

In an investigation of validity, Hibbard, Mitchell & Porcerelli (2001) found that it was possible to attain acceptable levels of internal consistency for all of the SCORS scales across 8 data sets. Their results reflected alpha levels ranging from .70 to .85 across each of the scales in a condition where at least ten to twelve TAT cards were administered. In the present study, the SCORS-G was determined to have greater than acceptable internal consistency with a Cronbach's alpha of .79. However, the mean inter-item correlation between the subscales was .41 with a notable range between scales. As suggested by the findings of Hibbard et al., this discrepancy was likely due to the small number of TAT cards (five card subset) administered.

Several of the selected five dimensions of the SCORS used in the present study were found to be moderately correlated with one another as outlined in Table 12:

***Table 12 – SCORS Correlations***

<i>Variable (N=41)</i>	<i>Complexity of Representations</i>	<i>Affect Tone</i>	<i>Emotional Investment in Relationships</i>	<i>Emotional Investment in Values/Morals</i>	<i>Understanding of Social Causality</i>
Complexity of Representations	1.00				
Affect Tone	.22	1.00			
Emotional Investment in Relationships	.62**	.41**	1.00		
Emotional Investment in Values/Morals	.06	.67**	.34*	1.00	
Understanding of Social Causality	.84**	.23	.66**	.06	1.00

\*\* Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

Previous studies of the SCORS have found that, in the correlations between subscales, two distinct dimensions emerge: an affective dimension and a cognitive dimension (Westen, 1991; Hibbard et al., 1995). To further examine the relationship between the SCORS variables used in the present study, the five items of the SCORS were subjected to a principal components analysis (PCA). Prior to performing the PCA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of many coefficients of .3 and above. The Kaiser-Meyer-Olkin value was .67, exceeding the recommended value of .6 (Kaiser, 1970; 1974) and Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance, supporting the factorability of the correlation matrix.

Principal components analysis revealed the presence of two components with eigenvalues exceeding 1, explaining 54.1% and 29.3% of the variance respectively, 83.4% in total. An inspection of the screeplot revealed a clear break after the second component. Using Cattell's (1966) scree test, it was decided to retain two components for further investigation. To aid in the

interpretation of these two components, varimax rotation was performed. The rotated solution revealed a number of strong loadings with three of the five variables loading on one component and two on the other. The interpretation of the two components was consistent with the previous research cited above in that the more cognitive items (Complexity of Representations and Understanding of Social Causality) loaded strongly on Component 1 and the more affective items (Affect Tone and Emotional Investment in Values and Moral Standards) loaded strongly on Component 2 (See Table 13).

However, as this is the only known study to perform this factor analysis on the five subscale SCORS-G as opposed to the original four subscale SCORS, the finding that the new subscale, Emotional Investment in Relationships, also loaded on to the more cognitive dimension (Component 1) cannot be readily understood, though it may well support Westen's (1995) rationale for separating the original Emotional Investment in Relationships and Morals subscale into the two separate subscales (Emotional Investment in Relationships and Emotional Investment in Values and Moral Standards) as reflected in the SCORS-G. Furthermore, follow up analyses using the rotated components that were derived in the present study, revealed no significant relationships between any of the independent variables or the outcome variables. For these reasons, it was determined that the main analyses of the present study would be performed using all five subscales rather than the two factors derived in principal components analysis. Nonetheless, the discovery that the original subscales divided into cognitive and affective dimensions as predicted by previous research, is of significance to the interpretation of the main results to be outlined in the Discussion chapter.

***Table 13 – Pattern/Structure Coefficients for PCA with Varimax Rotation of 2 Factors***

<i>Item</i>	<i>Pattern/Structure Coefficients</i>		<i>Communalities</i>
	Component 1	Component 2	
Understanding Social Causality	<b>.946</b>	.030	.895
Complexity of Representations	<b>.932</b>	.027	.869
Emotional Investment - Relationships	<b>.774</b>	.378	.742
Emotional Investment – Morals/Values	.012	<b>.922</b>	.851
Affect	.198	<b>.880</b>	.814

*Note:* Major loadings for each item are bolded

#### Reflective Functioning (RF):

Scores on the RF scale met all assumptions of normal distribution (Tabachnick & Fidell, 1989). Scores on the RF scale range from -1 to 9. RF scores in this dataset ranged from a minimum of 0 to a maximum of 5, with a mean of 2.34 and a median of 2.

#### Axis II Diagnosis:

Of the overall sample (N=41), two participants dropped out of the training program prior to completion of the MCMI-III for assessment of Axis II diagnosis. Of the remaining sample of 39, 24 participants (58.5%) were determined to have an Axis II diagnosis and 15 participants (36.6%) were not, with no large disparity between group sizes. The prevalence of Axis II diagnoses among the larger population of HOPE students was 40% in 2007 (HOPE, 2009). It should be noted that, though this is disproportionate to the national rates of prevalence which are reported at anywhere from 9% - 16% (Lenzenweger, Lane, Loranger, Kessler, R.C., 2007; Bender et al., 2001; Gunderson et al., 2000; Skodol, Gunderson, McGlashan, & Dyck, 2002), it is consistent with research which demonstrates higher rates of Axis II pathology among

unemployed populations (Banks and Jackson, 1982; Krahn et al., 1985; Linn et al., 1985; Kessler et al., 1987a; Kessler et al., 1987b).

### **Hypothesis One – Relationships between Independent Variables:**

In order to assess the nature of the relationships between the Reflective Functioning Scale, Axis II Diagnosis and each of the five dimensions of object relations as measured by SCORS-G, Pearson product-moment and point-biserial correlations were undertaken, the results of which are presented below:

#### Object Relations (OR) and Reflective Functioning (RF):

- a) To assess the relationship between OR and RF and, thereby, to examine the premise that the level of internal object representations would be related to the capacity to mentalize, Pearson product-moment correlations between the RF and OR scales were undertaken. Contrary to the prediction that lower OR scores would be associated with lower RF scores, there was no significant relationship between four of the five object relations subscales and RF, range of  $r = .07$  to  $.16$ ,  $p > .05$ . However, consistent with prediction, there was a moderate positive correlation between the SCORS subscale, Complexity of Representations (COM), and RF,  $r = .33$ ,  $p < .05$ , with lower COM scores associated with lower RF scores, revealing that those whose internal object representations of self and other were less differentiated and less complex were only able to mentalize at levels reflecting less differentiated and complex understandings of the mental states of self and other.

#### Object Relations (OR) and Axis II Diagnosis:

- b) To assess the relationship between OR and Axis II Diagnosis and, thereby, to examine the hypothesis that problematic internal object representations would be related to Axis II

pathology, point-biserial correlations between the presence/absence of Axis-II Diagnosis and scores on the OR subscales were undertaken. Contrary to prediction, there was no significant relationship between any of the five object relations subscales and Axis II diagnosis (Axis II), range of  $r = .03$  to  $.14$ ,  $p > .05$ .

Reflective Functioning (RF) and Axis II Diagnosis:

- c) To assess the relationship between RF and Axis II Diagnosis and, thereby, to examine the hypothesis that impaired capacity to mentalize would be related to Axis II pathology, point-biserial correlations between the presence/absence of Axis-II Diagnosis and RF scores were undertaken. Consistent with prediction, there was a moderate negative correlation between RF and Axis II,  $r = -.46$ ,  $p < .01$ , with higher RF scores associated with absence of Axis II diagnosis, suggesting that the absence of Axis II pathology is associated with a higher capacity for mentalization.

**Hypothesis Two – Relationships between Independent & Dependent Variables:**

In order to examine the relationships between RF, Axis II Diagnosis, OR and each of the three job outcome variables, Program Completion, Job Placement and Job Retention, Pearson product-moment and point-biserial correlations were undertaken, the results of which are presented below:

Program Completion:

- a) To assess the relationship between each of the five OR subscales and Program Completion and, thereby, to examine the hypothesis that less differentiated or problematic internal object representations would negatively impact participants' ability to complete the job readiness training program, point-biserial correlations between the five OR subscales and Program Completion/Non-completion were undertaken. Contrary

to prediction, there was no significant relationship between any of the five object relations subscales and completion of job readiness training program (Program Completion), range of  $r = .03$  to  $.26$ ,  $n = 41$ ,  $p > .05$ .

- b) To assess the relationship between RF and Program Completion and, thereby, to examine the hypothesis that impaired capacity for mentalization would negatively impact participants' ability to complete the job readiness training program, point-biserial correlations between RF scores and Program Completion/Non-completion were undertaken. Consistent with prediction, there was a moderate positive correlation between RF and Program Completion,  $r = .32$ ,  $n = 41$ ,  $p < .05$ , with higher RF scores associated with Program Completion, suggesting that a higher capacity to consider and reflect on the mental states of self and others was advantageous in completing job readiness training.
- c) To assess the relationship between Axis II Diagnosis and Program Completion and, thereby, to examine the hypothesis that those with Axis II pathology would have greater difficulty completing the job readiness training program, Fisher's Exact Test of Association between the presence/absence of Axis II Diagnosis and Program Completion/Non-completion was undertaken. Consistent with prediction, absence of Axis II diagnosis was significantly associated with Program Completion, ( $P = .031$ , two-tailed Fisher's exact test), suggesting that problems in functioning associated with Axis II pathology impaired participants' ability to complete job readiness training.

Job Placement:

- d) To assess the relationship between each of the five OR subscales and Job Placement and, thereby, to examine the hypothesis that less differentiated or problematic internal object

representations would negatively impact participants' ability to obtain a job, point-biserial correlations between the five OR subscales and Job Placement/Non-placement were undertaken. Contrary to prediction, there was no significant relationship between any of the five object relations subscales and job placement, range of  $r = .06$  to  $.34$ ,  $n = 32$ ,  $p > .05$ .

- e) To assess the relationship between RF and Job Placement and, thereby, to examine the hypothesis that impaired capacity for mentalization would negatively impact participants' ability to obtain a job, point-biserial correlations between RF scores and Job Placement/Non-placement were undertaken. Consistent with prediction, there was a strong positive correlation between RF and job placement,  $r = .56$ ,  $n = 32$ ,  $p < .01$ , with higher RF scores associated with job placement, suggesting that a higher capacity to consider and reflect on the mental states of self and others was advantageous in obtaining employment.
- f) To assess the relationship between Axis II Diagnosis and Job Placement and, thereby, to examine the hypothesis that those with Axis II pathology would have greater difficulty obtaining a job, Fisher's Exact Test of Association between the presence/absence of Axis II Diagnosis and Job Placement/Non-placement was undertaken. Consistent with prediction, absence of Axis II diagnosis was significantly associated with job placement, ( $P = .012$ , two-tailed Fisher's exact test), suggesting that problems in functioning associated with Axis II pathology impaired participants' ability to obtain employment.

#### Job Retention:

- g) To assess the relationship between each of the five OR subscales and Job Retention and, thereby, to examine the hypothesis that less differentiated or problematic internal object

representations would negatively impact participants' ability to retain employment beyond ninety days, point-biserial correlations between the five OR subscales and Job Retention/Non-retention were undertaken. Contrary to prediction, there was no significant relationship between any of the five object relations subscales and job retention, range of  $r = .01$  to  $.21$ ,  $n = 20$ ,  $p > .05$ .

- h) To assess the relationship between RF and Job Retention and, thereby, to examine the hypothesis that impaired capacity for mentalization would negatively impact participants' ability to retain employment beyond ninety days, point-biserial correlations between RF scores and Job Retention/Non-retention were undertaken. Contrary to prediction, there was no significant relationship between RF and job retention, range of  $r = .14$ ,  $n = 20$ ,  $p > .05$ .
- i) To assess the relationship between Axis II Diagnosis and Job Retention and, thereby, to examine the hypothesis that those with Axis II pathology would have greater difficulty retaining employment beyond ninety days, Fisher's Exact Test of Association between the presence/absence of Axis II Diagnosis and Job Retention/Non-retention was undertaken. Consistent with prediction, absence of Axis II diagnosis was significantly associated with job retention, ( $P = .007$ , two-tailed Fisher's exact test), suggesting that problems in functioning associated with Axis II pathology impaired participants' ability to retain employment for greater than ninety days.

### **Research Question One:**

The study posed an additional research imperative to perform binary logistic regression analyses to determine the extent to which each of the independent variables (RF, Axis II

Diagnosis, and OR) accounted for the variance in any of the three levels of job outcome (Program Completion, Job Placement and Job Retention).

Analyses performed in testing Hypothesis Two revealed significant relationships in the expected directions between two of the independent variables, RF and Axis II diagnosis (Axis II), and the job outcome variables Program Completion and Job Placement. Axis II was the only independent variable found to be significantly associated with the job outcome variable, Job Retention.

In assessing the relationship between Axis II and both Program Completion and Job Retention, a crosstabs table revealed a frequency of zero in one of the categories of both Program Completion and job retention (See Tables 14 and 15):

**Table 14 – Axis II Diagnosis and Program Completion**

		<i>Axis II Diagnosis</i>			
		No	Yes	Total	
Program Completion	Not Completed	Count	0	7	7
	Completed		15	17	32

**Table 15 – Axis II Diagnosis and Job Retention**

		<i>Axis II Diagnosis</i>			
		No	Yes	Total	
Job Retention	Not Retained	Count	0	4	4
	Retained		13	3	16

Because zero cell values render the regression model unstable, it was impossible to perform binary logistic regressions using Axis II as a predictor variable on the outcomes of Program Completion and job retention. Despite the strong association between Axis II and

Program Completion and Axis II and job retention, there was no statistical analysis that could be performed to assess its predictive value. Therefore, binary logistic regression was performed to assess only the impact of the RF predictor variable on program completion.

### **The Impact of RF on Program Completion:**

Binary logistic regression was performed to assess the impact of RF on Program Completion. The model, containing the RF predictor variable was statistically significant,  $X^2(1, N=41) = 4.319, p < .038$ , indicating that the model was able to distinguish between participants who completed the job readiness training program and those who did not. The model as a whole explained between 10% (Cox and Snell R square) and 15.4% (Nagelkerke R squared) of the variance in Program Completion and correctly classified 75.6% of the cases. As shown in Table 16, the RF predictor of Program Completion, recorded an odds ratio of 2.10. This indicated that for every one point increase in RF, participants with a greater capacity to consider and reflect upon the mental states of self and other were approximately *twice as likely* to complete the job-readiness training program.

**Table 16 – Logistic Regression Predicting Likelihood of Program Completion**

	<i>B</i>	<i>S.E.</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	<i>Odds Ratio</i>	<i>95% C.I. for Odds Ratio</i>	
							Lower	Upper
RF	.741	.381	3.778	1	.05	2.10	.994	4.432

However, as illustrated in Table 17, RF was no longer a significant predictor of program completion after controlling for age, gender, race, and high school dropout status, suggesting that one or several of these variables may have had a suppressor effect on the impact of RF, despite the fact that none of these variables independently predicted Program Completion.

***Table 17 – Impact of RF on Program Completion After Controlling for Demographics***

	<i>B</i>	<i>S.E.</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	<i>Odds Ratio</i>	<i>95% C.I. for Odds Ratio</i>	
							Lower	Upper
RF	.782	.421	3.440	1	.064	2.185	.957	4.989
Age	.051	.040	1.652	1	.199	1.052	.974	1.137
Gender	-1.059	.910	1.355	1	.244	.347	.058	2.063
Race	.580	.932	.387	1	.534	1.785	.287	11.097
High School	.108	.884	.015	1	.903	1.114	.197	6.303

### **The Impact of RF and Axis II on Job Placement:**

As there were no cells with zero values in the Job Placement outcome crosstabs table (See Table 18), it was possible to perform a binary logistic regression that included both the predictor variables RF and Axis II.

***Table 18 – Axis II Diagnosis and Job Placement***

		<i>Axis II Diagnosis</i>			
		No	Yes	Total	
Job Placement	Not Placed	Count	2	10	12
	Placed		13	7	20

Binary logistic regression was performed to assess the impact of RF and Axis II on Job Placement. The model containing only the predictor variable Axis II, was statistically significant,  $X^2(1, N=32) = 7.525$ ,  $p < .01$ , indicating that the model was able to distinguish between participants who were placed in jobs and those who were not. The model explained between 21% (Cox and Snell R square) and 28% (Nagelkerke R squared) of the variance in Job Placement and correctly classified 71.9% of the cases.

However, when RF was added to the model, the relationship between Axis II and Job Placement was rendered no longer significant. The full model, containing the predictor variables RF and Axis II, was statistically significant,  $X^2(2, N=32) = 14.85, p < .001$ , indicating that the model was able to distinguish between participants who were placed in jobs and those who were not. The model as a whole explained between 37% (Cox and Snell R square) and 50% (Nagelkerke R squared) of the variance in Job Placement and correctly classified 62.5% of the cases. As shown in Table 19, only RF made a unique statistically significant contribution to the model, predicting job placement with an odds ratio of 3.78. This indicated that for every one point increase in RF, participants with a greater capacity to consider and reflect upon the mental states of self and other were over *three times as likely* to be placed on a job.

***Table 19 – Logistic Regression Predicting Likelihood of Job Placement***

	<i>B</i>	<i>S.E.</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	<i>Odds Ratio</i>	<i>95% C.I. for Odds Ratio</i>	
							Lower	Upper
RF	1.331	.601	4.903	1	.027	3.78	1.165	12.285
Axis II	1.760	1.083	2.643	1	.104	5.82	.696	48.567

As shown in Table 20, RF was still shown to significantly predict Job Placement over Axis II even after controlling for demographic variables. The full model, containing the predictor variables RF and Axis II, as well as the demographic variables of age, gender, race, and high school dropout status was statistically significant,  $X^2(7, N=32) = 17.073, p < .05$ , indicating that the model was able to distinguish between participants who were placed in jobs and those who were not. The model as a whole explained between 41.3% (Cox and Snell R square) and 56.4% (Nagelkerke R squared) of the variance in Job Placement and correctly classified 84.4% of the

cases. An odds ratio of 4.60 indicated that, after controlling for demographic variables, for every one point increase in RF, participants were over *four times as likely* to be placed on a job.

***Table 20 – Impact of RF on Job Placement after Controlling for Demographics***

	<i>B</i>	<i>S.E.</i>	<i>Wald</i>	<i>df</i>	<i>p</i>	<i>Odds Ratio</i>	<i>95% C.I. for Odds Ratio</i>	
							Lower	Upper
RF	1.526	.806	3.580	1	.058	4.599	.997	30.342
Axis II	1.640	1.248	1.727	1	.189	5.155	1.640	1.248
Age	-.058	.050	1.362	1	.243	.944	-.058	.050
Gender	.362	1.153	.098	1	.754	1.436	.362	1.153
Race (1)	.943	1.875	.253	1	.615	2.568	.943	1.875
Race (2)	1.148	1.891	.369	1	.544	3.152	1.148	1.891
High School	-.084	1.348	.004	1	.950	.919	-.084	1.348

### **The Impact of OR on Job Outcome:**

Binary logistic regression was performed to assess the impact of OR on Program Completion. The full model, containing all five OR subscale predictor variables, was not found to be statistically significant,  $X^2(5, N=41) = 4.107, p > .05$ , indicating that the model was not able to distinguish between participants who completed the program and those who did not.

Binary logistic regression was performed to assess the impact of OR on Job Placement. The full model, containing all five OR subscale predictor variables, was not found to be statistically significant,  $X^2(5, N=32) = 6.872, p > .05$ , indicating that the model was not able to distinguish between participants who were placed on jobs and those who were not.

Binary logistic regression was performed to assess the impact of OR on Job Retention. The full model, containing all five OR subscale predictor variables, was not found to be

statistically significant,  $X^2(5, N=20) = 6.673, p > .05$ , indicating that the model was not able to distinguish between participants who retained jobs and those who did not.

### **Research Question Two:**

As the predictive relationship between OR and job outcome was not demonstrated, mediation models of multiple regression were not performed using these variables and RF. A binary logistic regression was performed to assess whether a potentially moderating effect of RF had impacted the relationship between OR and all three levels of job outcome. Results indicated no significant moderating effect of RF on the relationship between OR and job outcome ( $p > .05$ ).

### **Research Question Three:**

Analyses performed in testing Hypothesis 2 (c, f and i) revealed significant relationships in the expected directions between the independent variables, Axis II, and all three of the job outcome variables Program Completion, Job Placement and Job Retention. Crosstabs analysis assessing the relationships between Axis II and both Program Completion and Job Retention, revealed a frequency of zero in one of the categories of both Program Completion and Job Retention (See Tables 9 and 10 above). Therefore, as stated previously, regression analyses could not be performed to assess the predictive value of Axis II on either Program Completion or Job Retention. For the same reason, neither moderation nor mediation regression models could be implemented to analyze the extent to which RF might impact the proposed predictive relationship between Axis II and these outcome variables.

Using an SPSS macro designed by Hayes and Matthes (2009), for computation of moderation effects under multiple conditions including when outcome and predictor variables are dichotomous, a binary logistic regression was performed assessing the potentially moderating

effect of RF on the demonstrated predictive relationship between Axis II and Job Placement. The results yielded a computational error and were therefore inconclusive. It was discovered that, due to the small number of cases of those without an Axis II diagnosis who failed to be placed in jobs (n=2), the predicted probability for cases Axis II=0 (no) was either 1 or 0 resulting in computational problems in estimating the standard error when the interaction term was included in the model.

A mediational analysis, performed using an SPSS macro designed by Preacher and Hayes (2004), yielded no such errors given the calculation of four separate regression equations with no interaction term. Output of the macro is displayed in Table 21, where  $y$  = job placement,  $x$  = Axis II and  $m$  = RF.

***Table 21 –Mediation of RF on the Effect of Axis II on Job Placement***

	<i>Coefficient</i>	<i>S.E.</i>	<i>t</i>	<i>Sig. (two-tail)</i>
b (YX)	-2.2285	.9054	-2.4613	.0198
b (MX)	-.8824	.3645	-2.4206	.0218
b (YM.X)	1.3306	.6009	2.2144	.0348
b (YX.M)	-1.7604	1.0829	-1.6256	.1149

The macro provides unstandardized co-efficients as required by Baron and Kenny (1986) to test mediation. The rows of output are interpreted as follows: the first row, b (YX), represents the total effect of the independent variable,  $x$  (Axis II), on the dependent variable,  $y$  (Job Placement). This effect is statistically different from zero ( $p < .05$ ), indicating that those participants with Axis II diagnoses were less likely to be placed in jobs than those without these diagnoses. The second row, b (MX), represents the total effect of the independent variable,  $x$

(Axis II), on the proposed mediator variable,  $m$  (RF), also statistically different from zero ( $p < .05$ ), indicating that those participants with Axis II diagnoses had significantly lower RF scores than did those without Axis II diagnoses. The third row of the output,  $b$  (YM.X), represents the effect of the mediator variable,  $m$  (RF), on the dependent variable,  $y$  (job placement), controlling for the independent variable,  $x$  (Axis II). Participants with higher RF scores tended to have greater success in job placement, even after controlling for the presence or absence of Axis II diagnosis ( $p < .05$ ). In the final row of the output,  $b$  (YX.M) represents the effect of the independent variable,  $x$  (Axis II) on the dependent variable,  $y$  (Job Placement), controlling for the mediator variable,  $m$  (RF). This effect is not statistically different from zero, indicating no relationship between Axis II diagnosis and Job Placement after controlling for RF. In this model, all of Baron and Kenny's (1986) criteria for mediation are established, and the evidence is that RF completely mediates the effect of Axis II diagnosis on job placement. In other words, the meditational analysis revealed that in those cases where participants with Axis II diagnoses were able to obtain jobs, their ability to obtain the job was entirely attributable to the presence of relatively higher levels of RF. This finding indicates that the presence of even a moderate capacity to consider and to reflect upon the mental states of self and other confers an advantage on those with Axis II diagnoses in the pursuit of gaining employment.

## **CHAPTER FIVE – DISCUSSION**

The overall goal of the present study was to broaden the understanding of the cognitive and emotional factors contributing to the interpersonal skills that define job readiness for the urban poor. The guiding premise of the study was that the quality of an individual's object relations (OR), his or her capacity for reflective functioning (RF) and/or the presence of an Axis II diagnosis would have a significant bearing on the interpersonal skills necessary to obtain and retain employment. To assess this, the investigation had three primary aims: The first of these was to gain a fuller understanding of the relationships between Axis II diagnosis, OR and RF; the second was to assess their impact on completing job readiness training and acquiring as well as retaining employment; and the third, predicated on the demonstration of the primary hypotheses, was to explore the nature of the individual and combined role of these factors in predicting job outcome.

The hypothesis that Axis II diagnosis would be associated with lower levels of RF was confirmed. Likewise, the hypothesis that the presence of Axis II diagnosis would be associated with poor job outcome was demonstrated across all three levels of job outcome (Program Completion, Job Placement and Job Retention) while the hypothesis that lower levels of RF would be associated with poor job outcome was demonstrated across two of the three outcome levels (Program Completion and Job Placement). Further, the relationship between RF and job outcome was found to be predictive such that those with higher RF scores were found to be about twice as likely to complete the training program and over three times as likely to be placed in a job than were those with lower RF scores. Most strikingly, in a research question aimed at elucidating the relationship between variables, the impact of Axis II diagnosis on Job Placement

was found to be entirely accounted for by the degree of RF present, suggesting that the presence of higher levels of RF was advantageous for those participants with Axis II diagnoses in that they were significantly more likely to obtain jobs than those with lower levels of RF despite their diagnosis. The powerful impact of this finding on the potential for intervention will be explored at greater length in the discussion to follow.

Hypotheses regarding OR were relatively less fruitful. The hypothesis that lower levels of OR would be associated with Axis II diagnosis failed to be substantiated as did the hypothesis that low levels of OR would be related to poor job outcome. However, one of the OR subscales, Complexity of Representations, was found to be related to RF such that higher levels of complexity were associated with higher levels of RF. Although there was a general paucity of OR findings, this single OR finding has interesting implications for the understanding of the mediating effect of RF on Axis II pathology to be discussed in greater detail later in this chapter.

### **The Impact of Reflective Functioning and Axis II Diagnosis on Job Outcome**

#### RF and Job Outcome:

Consistent with prediction, higher RF scores were found to be related to both successful Program Completion and Job Placement such that those with higher RF scores were approximately twice as likely to complete the program and over three times as likely to get a job. While this finding certainly supports existing research demonstrating the connection between low RF and various impairments in clinical and parenting contexts (Harris et al., 1989; Allen and Fonagy, 2006; Fonagy et al., 1996), it is particularly encouraging given the limited body of previous research examining the impact of RF on outcome in a larger social context (Twemlow et al., 2005a).

In their study applying mentalization theory to the implementation of programs designed

to limit aggression and bullying in school systems, Twemlow et al. (2005a) relate the social problems arising in violent communities to impairments in the capacity to mentalize attributable to the circular, ongoing experience of violence and coercion. The “unconscious power dynamics” put in to place by these coercive environments are understood by the authors to “reduce an individual’s capacity to think in mental state terms, that is, to mentalize” (p. 266). This process, initiated by deprivation and/or abuse from birth, is then perpetuated and reinforced through the adoption of the available social roles of “bully-victim-bystander” being enacted in the larger community. The authors highlight the potential for these patterns to play out with destructive consequences for later social experiences like school and work.

As outlined in the introduction, almost without exception, the participants in the present study have backgrounds characterized by trauma ranging from neglect and deprivation to outright violence and coercion. The interviews in the present research, from whence the RF scores derive, are overwhelmingly filled with narrative accounts of painful and chaotic histories of this kind. The link between these emotionally violent backdrops and the impaired capacity for mentalization that Twemlow and his colleagues (2005a) describe formed part of the theoretical basis for the present investigation. The practical basis for this investigation was informed by our personal experience in working with this population at The HOPE Program, where the single greatest source of staff requests for intervention by the mental health staff revolved around issues related to interpersonal conflict and the single greatest source of anger described by students was related to the experience of “disrespect.”

Twemlow et al. (2005a) provide a cogent outline of the impact of extremely impaired or absent mentalizing capacities on psychological functioning, identifying the four key problems that are most likely to arise for populations of this kind: 1. Poor judgment in social and

interpersonal situations resulting from impaired capacity to identify and therefore to regulate affect and control impulses; 2. A tendency to overestimate or underestimate feeling states such as aggression resulting from an “incapacity to accurately estimate how other people feel in relation to their own feeling states” (p. 268); 3. A rigid tendency to attribute negative intent to others; 4. An inability to develop unbiased solutions to interpersonal problems that are acceptable to all members of the dispute. Therefore, the finding of the present study that mentalization capacity (RF) predicts the ability to complete job readiness training and to get a job is hardly surprising given the high degree of favorable interpersonal interaction that is required to successfully navigate both of these tasks.

Although there has been no prior research examining the impact of mentalization in employment settings, the findings of the present study are in keeping with extensive studies in the domain of Emotional Intelligence which suggest that the kinds of interpersonal capacities impacted by mentalization/RF – namely the capacity to take perspective, to recognize the mental states/emotions motivating the behavior of self and others and to view one’s self and intentions as separate from the other – are essential to effective workplace functioning (Côté et al., 2004; Janovics & Christiansen, 2001; Lopes et al., 2003; Caruso et al., 2002; Côté & Morgan, 2002; Seibert et al., 2001). Despite the growing popularity of the concept of Emotional Intelligence (EI) and the development of measures to assess it, recent reviews have advocated for more rigorous research designed to better understand which of the several dimensions comprising EI are most relevant, in what ways and to what extent (Zeidner et al., 2004). The impact of RF on employment outcome as demonstrated in the present study, suggests that that the capacity for RF may itself be an aspect of EI which, given EI’s increasingly visible role in employment settings, makes the potential connection between RF and EI worthy of investigation.

Additionally, while EI is assessed categorically, RF is assessed dimensionally which may permit more targeted and sophisticated interventions. For example, RF scores in the present study ranged from 0 to 5 out of a possible -1 to 9, demonstrating that even small differences in RF can make the difference between completing or failing to complete training; attaining or failing to attain employment. The present study demonstrates that the capacity for mentalization, (the prior investigation of which has been generally restricted to clinical research), is impactful in the larger social context of work readiness. Perhaps more importantly, this finding was demonstrated in an at-risk population of chronically underemployed and unemployed individuals with impaired to average RF capacity at best. The discovery that the impact of mentalization on interpersonal functioning extends to the workplace is an important one but the finding that even incremental increases in this capacity can determine whether an at-risk individual will complete job training let alone attain a job implies that RF imparts advantages that are not only beneficial for interpersonal communication but also crucial to survival.

RF was not demonstrated to be correlated with the Job Retention outcome variable, which is likely attributable to the small number of participants in that subset (n=21). That the relationship, though not significant, was found to be in the expected direction lends support to this explanation. Alternatively, it is possible that although RF may be a particularly cogent skill in the context of being evaluated in training settings or in a job interview, there may be other more powerful external factors such as economics or “company politics” that may dilute the measurable impact of RF on job retention.

#### Axis II and Job Outcome:

As expected, the absence of Axis II diagnosis was found to be associated with positive job outcome. Although its predictive power could not be assessed due to measurement

constraints, Axis II diagnosis was found to be related to all three levels of job outcome: Program Completion, Job Placement and Job Retention. The strength of these associations is particularly striking given the decreasing number of participants in each outcome pool (41, 32 and 20 respectively) which speaks to the powerful impact of the impairments associated with Axis II pathology in keeping with DSM-IV-TR criteria which specify “impairment of social, occupational or other important areas of functioning” (American Psychiatric Association, 2000, p.686). This finding is also consistent with a large body of previous research demonstrating this association (Bender et al., 2001; Gunderson et al., 2000; Skodol et al., 2002; Ormel et al., 1994; Spitzer et al., 1995).

Consistent with national trends which suggest that individuals with Axis II diagnoses can present a disproportionate social burden due to the negative interpersonal impact of their chronic symptoms as well as their extensive and repeated use of various mental health resources (Bender et al., 2001; Gunderson et al., 2000; Skodol et al., 2002), HOPE students with Axis II diagnoses require more frequent intervention and contact with the mental health staff due to issues related to “performance and behavior” most often manifested in interpersonal conflict (HOPE, 2006).

The finding in the present study that those students with Axis II diagnoses were less likely to complete training and to attain and retain employment than were individuals without this barrier, can be understood in practical terms as follows: Interpersonal conflict with program staff as well as fellow students increases the likelihood of termination from HOPE’s training program. If when provided with adequate support from the mental health staff, these students can be helped to complete the training program, they still face the second hurdle of the job interview. Despite receiving mental health support during training, after training is completed, it is inevitable that some of these students will falter at the interview stage possibly by failing to

follow through with appointments or by failing to make a good impression during the interview itself. Should a subset of students with Axis II diagnoses prove able to complete training and to acquire a job, retaining that job for longer than ninety days poses yet another challenge and possible point of failure. In these cases, it is likely that the Axis II employee, having adjusted to the job setting, is, by virtue of the characteristics associated with his diagnosis, more vulnerable to disenchantment and conflict which, coupled with poor affect regulation and poor impulse control, increases the likelihood that the individual will abandon or be terminated from the position in under ninety days.

#### Relationship between RF and Axis II and their Combined Impact on Job Placement:

Given the impact of reflective functioning (RF) on the capacity to regulate affect and to establish productive interpersonal relationships, the finding that lower RF scores were correlated with the presence of an Axis II diagnosis was not surprising and lends support to the construct validity of the Diagnostic and Statistical Manual of Mental Disorders, 4<sup>th</sup> Edition, Text Revision (DSM-IV-TR) (American Psychiatric Association, 2000), which defines a personality disorder as an inflexible, enduring and pervasive pattern of experience and behavior contributing to clinically significant impairment in cognitive, affective and/or interpersonal functioning. Additionally, this finding directly supports previous clinical research demonstrating an association between lower RF scores and Axis II pathology (Fonagy et al., 1996; Fonagy, Target, Gergely, Allen & Bateman, 2003).

The finding that RF and Axis II were related, not only to each other but also to job outcome, prompted a further investigation into the potentially combined impact of these variables on job outcome. Specifically, the question posed was whether or not the degree of RF present would potentially moderate or mediate the impact of Axis II diagnosis on job outcome.

While methodological issues made it impossible to statistically assess the potential impact of RF on the relationship between Axis II diagnosis on the job outcome variables, Program Completion and Job Retention, no such constraints applied to the assessment of impact on Job Placement.

Meditational analysis of the relationship between these variables revealed what is perhaps the most striking finding of the present study: In those cases where participants with Axis II diagnoses were able to obtain a job, their ability to do so was entirely attributable to the presence of relatively higher levels of RF. The powerful implication of this finding is that what makes the presence of an Axis II diagnosis negatively impactful on the ability to gain employment is the fact that it is associated with low levels of RF.

Although there is no known research examining such a mediating effect of RF on Axis II pathology, a number of studies have examined the role of RF in resiliency (Fonagy et al., 2004; Bleiberg, 2003; Fonagy et al., 1996; Fonagy et al., 1994). As described previously, both theory and research indicate that individuals with the kinds of traumatic histories typical of the present study's population have impairments in reflective capacity. However, it is Fonagy et al.'s (1996) belief that, even when children have experienced trauma at the hands of a primary caregiver, some degree of reflective capacity might still be fostered through a secure attachment to other available caregivers. Thus, alternate relationships with individuals capable of responding reflectively to the traumatized child appear to function as protective factors by promoting the development of resiliency.

One aspect of healthy functioning is the ability of individuals to put into words rather than to impulsively act upon feeling states that are uncomfortable or upsetting. The RF scale used in this study measures the ability of individuals to do just that, insofar as it captures the degree to which people are able to use language to interpret their own behavior and that of others

in terms of underlying mental states. The capacity to use words to reflect upon experience in this way is thought to be therapeutic for those recovering from the experience of trauma. In turn, it is this capacity that is believed to act as a protective factor for those dealing with the sequelae of traumatic experience (Fonagy et al., 1996). Given the findings of the meditational role played by RF in the present study, it seems reasonable to suggest that even a moderate degree of this capacity, as captured in the narratives herein, represents the defining marker of resiliency that accounts for the ability to overcome the kinds of behaviors associated with trauma-linked Axis II pathology. The influence of this reflective capacity on the ability to regulate disturbing affect and to provide alternatives to impulsive behavior is the likely factor assisting those with Axis II diagnoses to obtain employment despite associated disadvantages.

In a study referenced earlier in the literature review, Fonagy et al. (1994) found that, in a group of mothers with deprived early histories, the presence of RF was a far greater predictor of attachment security in their children than was the case for mothers without deprived histories. Within the deprived group, all of the mothers with high RF had securely attached children as opposed to the low RF mothers, only 6% of whom had securely attached children. In contrast, in the non-deprived group only 79% of the mothers classified as having high RF had children who were securely attached, suggesting that RF contributed more to resiliency in the high-stress environments of the deprived group than they did in the lower stress environments of the non-deprived group.

Strikingly, RF was found to be the single greatest predictor of attachment security, nullifying the effects of spousal support, SES and planning when entered into an interaction model. Although this research does not address employment outcomes, it is somewhat analogous to the present finding that RF mediates the impact of Axis II on Job Placement insofar

as it is; a) outcome based research and b) indicative of the essential role of reflective capacity in overcoming disadvantages. Additionally, the disproportionate impact of RF on the deprived mothers in high-stress environments seems particularly relevant to the present study whose population is overwhelmingly functioning under similar circumstances of deprivation.

Taken together, these findings help to explain *why* RF might have a mediating influence on the impact of Axis II pathology on Job Placement. Discussion of the findings presented in the following section will attempt to shed light on *how* this mediating function might operate.

### **Object Relations Findings: Further Exploring the Mediating Effect of RF**

The aim of the present study to gain a more nuanced understanding of the relationship between RF and object relations made the selection of Westen's (1991) SCORS an appropriate choice as a measure of object relations. With a general appreciation of the intertwining nature of the theories of object relations and mentalization but with no clear understanding of which aspects of object relation representation might be most analogous to RF, it was hoped that the implementation of Westen's (1991) differentiated scale would help to clarify this question. Although RF scores were not found to be correlated with four of the five SCORS-G object relations subscales, a relationship emerged between RF and the Complexity of Representations subscale, such that higher levels of representational complexity were associated with higher RF scores.

Critical of object relations theorists' tendency to view object relations as a "unitary phenomenon", Westen (1991) set out to develop a measurement scale that would reflect a much more differentiated understanding of the multiple cognitive and affective processes subsumed under the rubric of object relations theory. Borrowing from the models of social cognition research, Westen ultimately implemented a scale that reflects both affective and cognitive

processes and also takes into account an individual's representation of the larger social sphere as well as representations of self, other and relationships.

Previous studies of the SCORS have found that in factor analysis, two distinct dimensions emerge from the correlations between subscales: an affective dimension and a cognitive dimension (Westen, 1991; Hibbard et al., 1995, 2001). In these studies both of the more cognitively derived subscales, Complexity of Representations (COM) and Understanding of Social Causality have been found to load heavily on to the same factor whereas the remaining more affectively derived scales have coalesced into the second factor. As described previously in the Results chapter, factor analysis of the SCORS-G data in the present study yielded the same two distinct cognitive and affective factors as predicted by previous validity studies (Westen, 1991; Hibbard et al., 1995, 2001).

Similarities between the descriptions of the cognitively derived COM subscale and the construct of mentalization, from which RF is derived, are readily apparent. Westen (1991) defines what is measured by the COM scale as “the extent to which the subject clearly differentiates the perspectives of self and others; sees the self and others as having stable, enduring, multidimensional dispositions; and sees the self and others as psychological beings with complex motives and subjective experience” (p. 447). Mentalization and its operationalized equivalent, RF, have been defined variously as “the capacity to perceive and understand oneself and others in terms of mental states (feelings, beliefs, intentions and desires) [and] to reason about one's own and others' behavior in terms of mental states, i.e. reflection” (Fonagy et al., 1998) and “keeping one's own state, desires, and goals in mind as one addresses one's own experience; and keeping another's state, desires, and goals in mind as one interprets his or her behavior” (Coates, 2006, p. xv).

Both RF and COM are conceived of as existing along a developmental timeline whereby the capacity for each can be seen to differentiate over time. In describing complexity of object representation, Westen (1991) outlines a process of development that moves from the point at which the child retrieves social information solely on the basis of affective valence where objects are perceived as either “all good” or “all bad” to the point at which, given adequate and attuned caretaking, the cognitive scaffolding becomes sufficiently organized to allow for retrieval of memories of people and interactions associated with good, bad and mixed affective tones or on the basis of non-affective information. Similarly, Fonagy et al. (1998) describe RF as representing a developmental milestone whereby, through repeated experiences of attuned interaction with caregivers, the child is increasingly able to distinguish self from other and inner from outer reality in such a way that ultimately and optimally permits the representation of complex and separate internal states of both self and other.

Both theories emphasize the obvious impact of these capacities on interpersonal interaction. Westen (1991) asserts the potential for interpersonal havoc that can occur when there has been a failure to attain this level of representational complexity in development. Under these conditions, the adult, just as the young child, is prone to experience others as all good or all bad with the result being “chronic instability in interpersonal relationships” (p. 432). Likewise, when a child has not been helped (through attuned and non-coercive parenting) to experience himself as separate and agentic, Fonagy et al. (2002) describe an increased potential for interpersonal conflict that accompanies the individual’s inability to consider the perspective of others in his or her relentless attempts to assert selfhood.

Finally, although these capacities are measured by the COM subscale of the SCORS-G using projective data and by the RF scale using clinical interview data, their measurement

reflects very similar rating systems between both scales. Just as the lowest score on the COM subscale is characterized by a tendency in the responses of the individual “to focus primarily on his/her own needs in relationships” or to reflect relationship themes that are either “tumultuous” or entirely absent (Hilsenroth et al., 2004, p. 4) so too is the lowest score on the RF scale, which is described in the training manual as applying to responses that are “overwhelmingly egocentric” or “out of touch with the mental states” of those other than the interviewee (Fonagy et al., 1998). Responses at the highest level of the COM subscale demonstrate a response pattern that “is psychologically minded”, “differentiated” with “considerable complexity” and also demonstrates “insight into self and others” (Hilsenroth et al., 2004, p. 4). Similarly, responses at the highest levels of the RF scale should reflect a marked “awareness of important aspects of the mental states of all protagonists within an interaction, where the protagonists are placed in relation to one another in terms of their feelings and beliefs and these are sufficiently complex and elaborate for the rater to be persuaded of their accuracy” (Fonagy et al., 1998, p. 40).

Thus, the largely cognitive capacities reflected in these descriptions of both RF and COM, permit the individual: to differentiate and to understand one’s own as well as the other’s perspective in terms of mental states; and to retrieve and therefore recognize social information as reflecting a mixture of good and bad affective valence. These capacities have an obvious impact on interpersonal interaction insofar as they allow for the stable experience of the other as separate and agentic as opposed to merged and therefore threatening to selfhood. Individuals lacking in these capacities will likely be perceived as egocentric, insensitive and lacking in insight. It is not difficult to imagine, therefore, how such an individual might not fare well in an interview setting where much of what is likely being assessed by the interviewer relates to an individual’s ability to “fit in” to a larger team and to contribute to that team’s productivity

through an insight in to what is needed in terms of the individual's input as well as the needs of the group.

As outlined above, in demonstrating a link between RF and the cognitive aspects of object relations, the present study has supported the understanding that mentalizing is largely a cognitive process. However, the ways in which mentalization (RF) is both influenced by and influential of the experience of affect may help to illuminate how the capacity for RF might mediate the impact of Axis II pathology on outcomes like getting a job. Axis II pathology, as defined by the DSM-IV-TR, reflects both affective as well as cognitive domains of impairment. The demonstrated relationship between RF and Axis II, therefore supports the idea that RF plays an important role in affective functioning.

As described in Chapter Two and, as Allen (2006) puts it, “mentalizing is suffused with emotion” (p. 8) in the sense that the experience of emotion can be said to influence the development of the capacity for RF, to impact our ability to mentalize under affectively charged circumstances, and simultaneously to inform our ability to regulate affect. In other words, an individual whose ability to regulate affect has not been fostered via attuned and nurturing caregiving in early development fails to develop the integrated self-experience essential to the development of the capacity to mentalize – i.e. to reflect on one's own mental state and that of the other. The capacity to mentalize promotes, among other things, an ability to reflect upon and tolerate the experience of affect while in the midst of the affect experience, thus altering the experience of the affect, a process referred to by mentalization theorists as “mentalized affectivity” (Fonagy et al., 2002; Jurist, 2005). The capacity represented by the term “mentalized affectivity” (Fonagy et al., 2002; Jurist, 2005) is described by Fonagy and his colleagues as a cognitive process wherein cognition is applied not “to determine and alter affective experience”,

as is typically understood to be the case, but rather is enlisted in such a way as to promote the ability of the individual to “remain within” or to “recapture the affective state” (Fonagy et al., 2002, p. 436).

The authors outline a three-component process to mentalized affectivity that consists of the identification, the modulation and, ultimately, the expression of affects. The process of affect identification involves, at its most basic, naming the emotion one is feeling and, in more complex forms, discerning links between affects that may be temporal or defensive in nature. For example, a given individual might recognize that the experience of anger or anxiety might sometimes indicate an underlying state of sadness. Affect modulation is described as a process whereby affect may be transformed through modulation of intensity either upward or downward, or in a more complex variant, a process wherein affect comes to be revalued. In this instance, one might revalue the affect experience in the moment through recognizing its connection to a previous affect experience (e.g. the recognition that one’s tendency to experience oneself as a victim in interactions with authority derives from prior negative experience of authority figures rather than from any persecuting intention on the part of the current authority figure). The third element, affect expression, refers to “the choice to restrain expression or to let it flow” (p. 439). Here, the authors highlight the importance of “inward” expression of affect rather than outward, at times when expressing one’s affect outwardly may be detrimental. In describing this process in greater detail, Fonagy et al. (2002), remind the reader of the premise of mentalized affectivity that involves reflecting upon one’s affects from within the affective experience as opposed to from without. From this perspective, “it can be sufficient to let one feel the affect anew without having it emerge in the world” (p. 439).

Revisiting for a moment the simplified job interview scenario presented towards the end of Chapter Two, let us apply this model to imagine how the capacity for RF, as represented in the process of “mentalized affectivity”, might play out in an actual job interview setting where the interviewee is contending not only with the inherent stress of an interview but also is carrying the added burden of an Axis II diagnosis and all the difficulties in affect regulation and interpersonal functioning that implies. In the condition where the Axis II diagnosis is accompanied by extremely low or absent capacity for RF, it is not so difficult to imagine the ways in which the individual would likely struggle to navigate the complexities of the interview interaction. Given our understanding that the internal representations of the personality disordered individual reflect the impairments associated with the lower ends of both the RF and COM scales (i.e. a lack of complexity, a tendency towards egocentric interpretation of behavior) and given that, in this population, these difficulties are often underscored by repeated prior experience of trauma and/or experiences of conflict with and devaluation by authority figures, then the personality disordered individual, reading the actions of the interviewer through this particular lens, is much more prone to misinterpreting the interviewer’s intentions. These misattributions amplify the experience of the anxiety inherent to the interview, while at the same time making it all the more difficult to regulate. The external expression of guardedness and possible hostility associated with the interviewee’s internal representations of the interviewer, together with the experience of heightened anxiety is conveyed to the interviewer such that the interviewer feels alienated or “put off”, ultimately deciding not to hire the interviewee.

Alternatively, where an Axis II diagnosis is accompanied by a greater capacity for RF, the interviewee, just as is suggested by the action of “mentalized affectivity”, is better able to reflect upon and tolerate the experience of anxiety while in the very midst of it. Such a person,

though possessing all the representations and affective/interpersonal impairments described above, has the added capacity conferred by even a moderate degree of RF to accurately identify his/her emotional state and not only regulate but, as Jurist (2005) puts it, to “revalue” the affective experience.

In the present sample, the highest level of RF scored by an individual successfully placed on a job with an Axis II diagnosis was 4 out of a possible 9. At this level of RF capacity, the individual demonstrates an inconsistent capacity, albeit limited, to “make sense of their experience in terms of thoughts and feelings” (Fonagy et al., 1998, p. 45). References to mental states in transcripts scoring a 4 or 3 will contain elements of a reflective stance that are unlikely to be elaborated and may even be superficial in nature. Recent research has demonstrated in preliminary findings that even modest gains such as these may impact the development of secure attachment in children of mothers in an RF intervention group (Slade, Sadler, Miller & Ueng-McHale, 2009). In support of these findings that seemingly modest differences in RF capacity can have a powerful impact on development, the present study suggests that modest levels of RF may be similarly impactful on outcomes, such as employment, for adults.

In other words, RF levels no greater than 4 appear to be sufficient to enable the interviewee to accurately identify his emotional state (e.g. anxiety) and to consider the potential motivations of the interviewer to an extent adequate to allow him/her to enlist this information in the service of not only regulating but also revaluing his anxiety. For example, having accurately identified his/her affect state as anxiety, in the process of modulation, the interviewee is optimally able to recognize that the state of anxiety is attributable to the interview experience rather than to negative intent of the interviewer who, despite being in a position of authority, does not necessarily share the characteristics or intents of authority figures from the past with

whom the interviewee may have had a number of negative or traumatizing experiences. This recognition enables the interviewee to “revalue” the affect state from within the experience. This revaluation, in turn, permits the interviewee to recognize that he/she is not under threat and thereby may choose to express the anxious affect inwardly rather than to convey it outwardly to the interviewer. Thus, engagement in the process of mentalized affectivity permits the interviewee to make a favorable impression on the interviewer in spite of the Axis II factors working against him/her.

As described previously, the fact that RF was found to be associated with the more cognitively derived SCORS subscale, Complexity of Representations, stands to reason given the theoretical understanding of the act of mentalizing as a “mental activity” that includes a “wide range of cognitive operations pertaining to mental states, including attending, perceiving, recognizing, describing, interpreting, inferring, imagining, simulating, remembering, reflecting, and anticipating” (Allen, 2006, p. 6). Indeed, the very measurement of RF could be described as the tracking of a cognitive process, namely the individual’s ability to reflect on his own as well as others’ mental states, in the course of a narrative whose coherence is assessed on the basis of these cognitive capacities.

It may also help to explain why RF was not found to be correlated with the more affective subscales of the SCORS-G: Affect Tone and Emotional Investment in Values and Moral Standards. It is less clear why RF was not found to be correlated with the remaining two of the cognitive subscales: Emotional Investment in Relationships and Understanding of Social Causality. One possibility derives from the finding in previous research that the Complexity of Representations subscale (COM) (with which RF was found to be correlated), seems to be a more robust scale with implementation of as few as four TAT cards yielding coefficient alphas

as high as .80 to .90, whereas other scales required as many as twelve cards to obtain similarly high values.

Another possibility is that the other two cognitive subscales in fact capture elements that, while significantly similar to the COM subscale, are sufficiently dissimilar to the RF scale that they fail to demonstrate a correlation. For example, Emotional Investment in Relationships, used to score relationship themes revealed in TAT narratives, may retain a focus on relatedness that is too explicit and specific to correlate significantly with RF, a measure of the capacity of the individual in interview narrative to reflect on the distinct mental states of self and others and to consider the ways in which these states influence behavior. More puzzling is the failure to find a relationship between RF and Understanding of Social Causality (USC), a subscale that is most highly correlated with the COM subscale. The USC subscale measures “the extent to which attributions of the causes of people’s actions, thoughts and feelings are logical, accurate, complex and psychologically minded” and, as such, would be expected to correlate with RF in the same way that it does with the COM subscale. Therefore, it seems reasonable to imagine that the failure to demonstrate a significant relationship between these items has more to do with the problems in measurement described in the previous paragraph than with meaningful differences in construct.

The present study failed to demonstrate a relationship between any of the object relations scales and Axis II diagnosis. There have been few SCORS based studies demonstrating a direct relationship between SCORS items and the presence or absence of Axis II diagnosis. More typically, prior studies have tended to focus on more discrete aspects of functioning or pathology. For example, research demonstrating a correlation between trauma history and impaired object relations representations as measured by SCORS (Ornduff & Kelsey, 1996;

Westen et al., 1990), suggests the possibility that Axis II pathology may be too broad a category to distinctly capture the subtle differences reflected in the SCORS measure.

Similarly, research focusing on the relationship between Axis II pathology and object relations impairment measured using SCORS, have typically examined differences between discrete disorders on the Axis II spectrum rather than examining Axis II disorders as a whole (Tramantano et al., 2003; Ackerman et al., 1999). These findings indicate that different Axis II diagnoses (e.g. Cluster B vs. Cluster C) reflect differences in object relations pathology such that ratings on SCORS dimensions vary according to specific characteristics associated with different subtypes of Axis II disorders. Therefore, in the present study, it is likely that individual differences within the small sample of research participants with an Axis II diagnosis may have cancelled out any meaningful differences in object relations between the larger groups.

Finally, the general paucity of findings from the SCORS data suggests that there may have been limiting factors associated with the measurement of object relations in the present investigation. With scores along a seven-point scale tending in this sample to cluster around a modal score of 3, there may have been too little variance to detect any meaningful differences between those with Axis II diagnoses and those without. As described earlier, previous validity research has indicated that internal consistency within the SCORS measure is best demonstrated in studies that use a minimum of ten to twelve TAT cards (Hibbard et al., 2001). Given that the present study utilized only five cards, analysis yielded a surprisingly robust overall internal consistency. However, closer examination revealed a relatively low mean inter-item correlation between the subscales with a notable range between scales. According to validity research, this is likely due to the small subset of TAT cards used and, as such, calls into question the extent to

which the different SCORS dimensions in the present study can be said to be measuring the same basic construct.

The present study failed to demonstrate a significant relationship between any of the SCORS-G subscales measuring object relations and any of the job outcome measures, Program Completion, Job Placement or Job Retention. There have been very few previous studies utilizing the SCORS measure that have examined the association between object relations representations and a given outcome variable. In one such study, the outcome investigated was related to treatment of a clinical population (Ford et al., 1997). This is consistent with previous non-outcome based SCORS research, which has also tended to focus on clinical populations (Westen et al., 1990; Nigg et al., 1991; Nigg et al., 1992; Ornduff & Kelsey, 1996; Westen, Ludolph et al., 1990).

Although some of the participants in the present study were diagnosed with Axis II diagnoses in the process of personality assessment, they cannot be said to be representative of a typical clinical population in that the primary focus of the program was job readiness training and not psychiatric treatment. Therefore, it is possible that implementation of the SCORS measure is more applicable to clinical populations and clinical outcomes than to non-clinical populations and larger social outcomes. However, given the strong association between RF and job outcome and given the correlation between RF and the SCORS-G subscale, COM, one would expect that COM would be correlated with outcome at least to some degree. For that reason, it seems more likely that the failure to find a correlation between the SCORS-G subscales and job outcomes may have more to do with the limitations associated with measurement as described in previous sections.

## **Implications for Intervention**

One of the more important implications for our finding that RF is linked to Complexity of Representations (COM), is not only that it supports the existing conceptualization of RF as being essentially a cognitively based process with a developmental timeline, but that, the direct link to COM indirectly links RF to SCORS research that has demonstrated that the development of COM extends well into adolescence contrary to traditionally held notions in object relations theory that this capacity is largely cemented in preoedipal development (Selman, 1980; Flavell, 1985; Leigh et al., 1992). To the extent that psychotherapy is largely based on developing and increasing the capacity for mentalized affectivity (Jurist, 2005), it is reasonable to imagine that this capacity is capable of further development well beyond adolescence though there is no doubt that the positive implications of intervening in early childhood are potentially quite powerful as suggested by Twemlow et al.'s (2005a) work aimed at decreasing violence in schools and larger communities through implementation of mentalization-based programs.

The finding that the presence of higher levels of RF entirely predicts job acquisition despite the presence of Axis II pathology has perhaps the most profound implications, particularly in the current economy. Given that in the present study, individuals with Axis II diagnoses varied in their capacities to mentalize with a range in scores from 0 to 4 and given that only individuals at the higher end of this range were able to attain jobs, it suggests the possibility that RF may be linked in some way to our understanding of the protective function of resiliency. As Stein (2006) so adroitly puts it in a paper addressing the potential link between mentalization and resiliency, “the capacity to mentalize may provide at-risk persons with a capacity that opens a range of possibilities for understanding past adversities, judging the motives and feelings of others in the present, and detecting realistic alternatives for the future” (p. 311).

The cognitive aspects of mentalization (RF) make it a uniquely active and engaged process that would seem to lend itself very well to the development of psychoeducational programs aimed at enhancing this capacity. As Allen (2006) asserts, “mentalizing is action...something we *do* – or fail to do as well as we might” (p. 7) and adds that, in a successful treatment, both clinician and patient are actively engaged in this process. Jurist (2005) describes the interplay between cognition and affect as an immersion in “the exploration of how our affective experience is mediated by the representational world” which process he describes as an active and engaged interest in discerning the meanings of one’s own mental states as well as those of others (p. 429).

Capitalizing on the motivational nature of this process, Allen and his colleagues (Haslam-Hopwood, Tobias, Allen, Stein, & Bleiberg, 2006) have developed a psycho-educational program designed to provide their patients at the Menninger Clinic with the opportunity to better understand and practice the active skills of mentalizing that will be inherent to all aspects of their treatment. This team describes the program as a “meta-intervention” that incorporates lectures on mentalizing with opportunities to practice and to receive feedback on the skill in a setting that includes the participation of not only the patients but also the treatment team, trainees and patients’ family members. Although at the time of publication of their article, this team had not yet begun to formally research the effectiveness of this intervention, they described feeling encouraged by the engagement with the process that patients demonstrated in their frequent references to mentalization even outside of the group as well as the positive feedback provided by patients to the staff about the intervention.

Encouraged by the colloquial success of the intervention developed by the Menninger team (Haslam-Hopwood et al., 2006) and inspired by my recent research in this area, my

colleagues and I developed and implemented a psychoeducational mentalization training intervention at The HOPE Program utilizing many of the exercises put into practice by the Menninger team. Over the months of teaching this course, we were most struck by the level of engagement, humor and lively discourse of the students as they took part in activities like group analysis of scenes depicted on TAT cards, formulating and debating interpretations of the characters' mental states. As the curriculum progressed to discussion of the students' own mental states in "replay" of recent conflicts or interpersonal dilemmas that the students presented to one another, we were again surprised and pleased to find how eager most of the students were, not only to volunteer scenes from their own lives, but also to engage in analysis of their own mental states and those of others. At times when whomever student had volunteered the scenario was finding it difficult to imagine the motivations and perspectives of the other person in his or her story, other students were quick to chime in with possibilities and, though these efforts were not always appreciated in the moment, they were almost always enthusiastically engaged and grappled with.

In applying these psychoanalytic constructs to working with the members of this disadvantaged and frequently underserved population, we created the kind of playful space that was understood by theorists like D.W. Winnicott to be, as Tuber (2008) describes it, "the benchmark for the entrance into a life of health and vitality" (p. 119). In mentalization theory, Fonagy and Target (1998) describe playfulness as being often the "only ally" in preserving the "as if" nature of the therapeutic exercise" central to fostering mentalization in its inclusion and integration of both negative and positive affect (Jurist, 2005). Rather than offer students more of the socialization and behavioral "solutions" offered most often through substance abuse programs aimed at the elimination of negative affect, we were introducing them to a skill that

offered an active rather than passive approach to managing and tolerating affect. By fostering curiosity in both cognitive and affective states, we endeavored to provide a skill beyond simply “holding the belly” and “counting to ten.”

As Jurist (2005) points out, “one of the most striking aspects of affectivity is that it underscores the value of reinterpreting, not just naming, altering, and acting on, one’s affects” (p. 438). In this way, introducing the skill of “mentalized affectivity” to the HOPE students provided an intervention experience that honored rather than chastised the legitimacy and intensity of their affects while simultaneously providing an active means of mediating them. Hibbard et al. (1995) describe the intrinsically “motivational” nature of representations of “wishes, desires, wants, needs” and other mental states as opposed to the representation of affects and emotions which, by virtue of being states that can be neither satisfied nor unsatisfied, lack intrinsic motivational qualities. Mentalized affectivity, with its marriage of cognition and affect seems to bridge this gap. It may also go a long way to explaining why one HOPE student in the midst of a discussion of mentalization skills exclaimed, “I think this works better than ‘holding your belly’. It gives you something to *do*.”

### **Limitations of the Present Study and Directions for Future Research**

Despite limitations of the present study related to small sample size and the problems related to measurement of object relations as discussed in the Results chapter, several of the hypotheses and research questions posed by the study were supported to a robust degree. Therefore, repeating the analyses performed herein be repeated with a larger sample and increasing the TAT cards used from five to twelve as suggested by Hibbard et al. (2001), would be expected to replicate the current findings and possibly generate support for the hypotheses that failed to be demonstrated in the present study.

The present study was also limited by a lack of variability within the sample that might have been offset by the inclusion of a higher functioning control group. However, it is worth considering that this same limitation provided us with an opportunity to better understand the role of RF by demonstrating its role in mediating the impact of Axis II on job placement even at relatively low levels. Nonetheless, it would be instructive to replicate this research with a control group to ascertain the degree to which levels of RF at 5 and above confer additional advantage in job outcome.

Both object relations and mentalization theorists observe that the capacity to render complex representations and the capacity to engage in RF are impaired by the experience of intensely negative affect in the context of emotional duress (Westen, 1991; Fonagy et al., 2002). Future research may attempt to better understand this phenomenon by examining the extent to which the application of RF skills and representational capacities generalize across domains. For example, it seems likely that RF might be significantly less impaired and more easily accessed in the context of a job interview than in the context of intimate and complex relationships like marriage.

Even within the job training and job outcome contexts of the present research, future research with greater longitudinal follow up might demonstrate that the skills involved in job acquisition are significantly different from the skills involved in long term job retention. To this end, an analysis of RF controlling for external factors like economic and organizational forces, might be useful to determine the extent of its mediating influence particularly given large scale “welfare to work” research findings that unemployment for at least one quarter during the fifth year after initial job acquisition was as high as 60 to 80 percent among job training populations (Hamilton et al., 2001).

Previous research examining the validity of SCORS subscales has demonstrated that correlation between the cognitively based COM subscale and other measures assessing similar constructs, have been attenuated though not nullified by controlling for IQ as measured by the Wechsler Adult Intelligence Scale – Revised (WAIS-R) (Hibbard et al., 1995). This finding provides strong evidence for the construct validity of object representations but also raises the important possibility that the cognitive aspects of object representation measure a dimension of intelligence distinct from the intellectual intelligence measured by the WAIS-R. Given the finding that RF is correlated with COM, replication of this research while controlling for IQ might contribute to the aim of Emotional Intelligence researchers to more clearly delineate which aspects of emotional and social functioning are most implicated in Emotional Intelligence (Zeidner et al., 2004).

Perhaps most importantly, in light of the opportunities for intervention suggested by findings of the present study, research focused on the development and effectiveness assessment of interventions designed to increase mentalizing (RF) capacity seems warranted. Given the large body of research indicating an ever increasing emphasis by employers on communication, interpersonal, adaptability and teamwork skills, programs aimed at enhancing these skills may be of particular relevance in the coming years particularly in the current economic climate (Overtoom, 2007; Carnevale et al. 1999; O’Neil et al., 1997; Halperin, 1998; Bailey, 1997).

## **Conclusion**

In its examination of the impact of object relations representation, reflective functioning and personality disorder on job outcome, the present study has not only applied psychodynamic theory and research to a larger social outcome than has been typically examined but it has also applied it to the study of an underserved and growing population: the urban poor, whose

experience of relational trauma, economic, social and educational disadvantage expose them to a higher risk for substance abuse, domestic violence and mental illness with catastrophic implications for economic self-sufficiency.

In clinical interviews with The HOPE Program population, students overwhelmingly cite the experience of “disrespect” as being most likely to incite their anger. In my work with this population, I have come to understand how we as clinicians can so easily contribute to this act of disrespect by offering interventions that fail to recognize and to honor the experience of the individuals we are working with. By offering rote behavioral “solutions” aimed at the elimination of negative affect, we can fail to respect the layers of representation behind the affect nor the years of experience implicated in its creation. In other words, we fail to mentalize.

By explicitly integrating psychoanalytic constructs, such as mentalized affectivity, in our work with clients at all levels of the socioeconomic and psychosocial spectrum, we offer an active approach that honors the experience of the individual and in so doing promotes a sense of agency and self-esteem. By operating in the “non-mentalizing mode” we can, as Allen (2006) suggests “dehumanize and treat each other as objects, becoming coercive and controlling” (p. 7). By mentalizing, we respect the separateness and uniqueness of the minds that we work with and we provide the opportunity to experience and be experienced as non-objects capable of mutual influence that is free from coercion and attempts to control. Therefore, it seems altogether likely that the kinds of interventions described in this study serve a dual therapeutic function: increasing the skill of mentalizing essential to job acquisition, while simultaneously providing an experience of recognition and empowerment that may be equally essential to attaining self-sufficiency both economic and personal.

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