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VERBAL-PERFORMANCE DISCREPANCIES ON THE WISC-III AND THEIR RELATIONSHIP TO THE OBJECT RELATIONS OF INTELLECTUALLY GIFTED CHILDREN OF COLOR

by

Carlos I. Prieto

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

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Abstract

VERBAL-PERFORMANCE DISCREPANCIES ON THE WISC-III AND THEIR RELATIONSHIP TO THE OBJECT RELATIONS OF INTELLECTUALLY GIFTED CHILDREN OF COLOR

by

Carlos I. Prieto

Advisor: Professor Steven Tuber

This study examines the object relations representations of 56 intellectually gifted children of color in which half of these children displayed relative difficulty with tests of visual-perceptual/motor problems as compared to tests of verbal reasoning and additionally demonstrated relative problems in relatedness within a special school situation. These children were divided into two groups based on differences between their Verbal and Performance Scale scores on the Wechsler Intelligence Scale for Children (WISC-III). In order to meet inclusionary criteria for the high disparity group, a 28 or more point difference between the Verbal Scale score to Performance Scale score was present. Inclusion in the low disparity group required a difference of no more than 21 points between the same scales. In all cases the difference was accounted for by a greater Verbal Scale score. At the time of the study, all of the children were in the fifth or sixth grade, ranged in age from 10-12, and were living in an urban setting. Each child was administered the Rorschach Inkblot Test, which was subsequently scored on two object relations measures. Blatt's Developmental Analysis of the Concept Scale (DACOS) did not differentiate between the groups. As predicted, however, the high-disparity group subject's Rorschachs, assessed with Urist's Mutuality of Autonomy Scale (MOAS), had a significantly greater number of less adaptive responses when compared to the low-disparity group. This significant finding specifically

suggested that the children in the high disparity group had a greater propensity to experience others through the lens of enmeshment. In fact, they produced almost twice as many symbiotic level responses than did the low disparity group when measured on the MOAS. Along with producing a significantly greater number of symbiotic level responses, the high disparity group also demonstrated a tendency to produce fewer malevolent scale point responses when compared to the low disparity group. This finding, which just missed significance at the .05 level, is interpreted as an indication that the high disparity group does not have as much access to full, complex experiences of others as compared to the low disparity group.

Acknowledgements

This project would never have been completed without the gentle and intelligent guidance of my three committee members. Before I had ever come upon the idea of conducting this study Dr. Vera Paster had already provided me with a wealth of information regarding the gifted children studied in this work. Not only was she responsible for giving me the opportunity to work with these children, but she allowed me to consult with her on a regular basis so that I could best learn from her many years of knowledge. Once in the organization Dr. Michele Owens, another committee member, was always a calming force in an often hectic and intense environment. Her feedback and expertise were vital to the completion of this project. Finally, I owe a deep debt of gratitude to Dr. Steve Tuber, my committee chairman. From the time I began my graduate studies, Steve has always offered himself in a way that has been real and supportive. At no point in this process did I doubt my ability to finish in a timely fashion. I owe a great deal of that feeling to Steve's infectious sense of determination and perseverance. Also, my two outside readers, Drs. Kate Oram and Seymour Moscovitz were vital for their feedback and genuine interest in this project. I also greatly appreciate the financial assistance offered to me by the Magnet and Proshansky Dissertation Year Fellowships.

I would also like to thank Gary Simons, the founder and Executive Director of the organization where this investigation was conducted, for his ability to make real that which others could only dream of doing, and for his willingness to allow me to conduct this investigation. But, any mention of my experience with the organization would not be complete without acknowledging my direct boss, Mort Dukehart, an individual whose insights and friendship will always be cherished by me. Of course none of this could have been accomplished

without the cooperation of the children and their families in the organization. I have learned a great deal from witnessing their noble struggle to always reach for more than that which has been offered them.

In my own struggle to grow each one of my four dear friends, Marc Kleber, Tony Bossis, Peter Coleman and Daniel Rothstein have played an integral and yet separate role. I fully accept that the person I have become has been greatly influenced by my contact with each one of these men. I will always cherish their love and support. Having been raised in an environment where family came first, where the accomplishments of one were understood to be a shared triumph, I must share this moment with my two brothers Jaime and Adrian Prieto. Despite the many hardships we had to endure as children we always found a way to let each other know that we were never alone. My love and respect for them is infinite. The responsiblity for making sure we stayed together as a family falls squarely on the shoulders of my mother Olga Prieto. As an immigrant parent she quickly learned that the only way her boys were to survive and thrive was to be strong minded, proud and determined. The profundity of her self sacrifice for our betterment is something that I will never fully grasp. Hers has been a life well lead. My ability to accomplish this project is, in part, a small token of appreciation for all that she has meant to us. Finally, a few words about my wife Denise Merhige Prieto. I first met Denise when I was accepted into graduate school. Since that time she has been, simply put, my closest, dearest friend. Our relationship has made everything else seem tolerable and possible. From time to time I will ask her to smile for me, for in that smile I see so many of the things that make me love her so. In fact, it is that very smile that I am imagining as I write these final lines as a graduate student. Thank you for everything Denise.

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CHAPTER I

INTRODUCTION

Personal observation and background

In June of 1993 I was fortunate enough to have been hired as the Guidance Counselor at a private, not-for-profit organization located in New York City. This organization, which was founded in 1978, identifies intellectually gifted, minority 5th and 6th graders from the New York City Public School system, puts approximately 2,800 qualified applicants through a rigorous application process, and then selects 154 deserving students for an academically challenging, 14 month program. Following successful completion of the program, the children are placed in independent private schools. Although the bulk of the training is academic in nature, there is also an aspect of the program that deals exclusively with the children's emotional/social well being. It is my task to address these issues.

As part of the admissions process all prospective candidates are administered the Wechsler Intelligence Scale for Children-III (WISC-III; Wechsler, 1991) by a trained graduate student in clinical psychology. The great majority of the accepted applicants have full scale IQ's of 130 and above. When one considers that many of these children come from underprivileged backgrounds, where receiving a proper education from an overburdened, underfinanced public school system is the exception rather than the norm, their already remarkable scores are all the more impressive. In many instances the test scores are only scratching the surface of each child's potential.

During my first week on the job I was asked to assess a female student who was exhibiting some difficulties adjusting socially. Several of her teachers commented that she seemed "out of

it" in class, did not seem to be connecting with her peers, and that this behavior was affecting her overall academic performance. My own experience of her was quite similar. One of my tasks as the Guidance Counselor was to facilitate a non-academic class where the children were given the opportunity to explore issues that were not specifically covered in their academic settings. It was incumbent on me to lead discussions that focus on topics as wide ranging as race, class, sense of self, gender, and each individuals's role in, and experience of, their micro/macro environments.

In the less structured, process oriented setting, this student was quick to offer her tangential musings on life at the most inopportune times. As an adult and a clinician in training, I was able to appreciate the brilliance of some of her loose associations. Unfortunately, her peers were not as responsive or tolerant. Her apparent inability to pick up on the cues in the room began to impact on her ability to connect appropriately with her peers.

On one occasion she was unable to follow the rules for a game of telephone. The game, which entails having a group sit in a circle, whispering a sentence into the ear of the nearest child, and then having that child whisper the same sentence to the next child, until everyone in the circle has heard a sentence, often results in a final sentence that in no way resembles the original sentence. It is a game that highlights each child's ability to listen and communicate effectively. None of the other children had difficulty following the rules of the game. When it came time for this girl to whisper the sentence she had just heard, she inexplicably got up from her chair and walked across the room to whisper the sentence to the first child. The other children were understandably confused by her behavior. On the surface she seemed to be capable of understanding the rules of the game, but there was something about having to interact with the other children that made it difficult for her to proceed appropriately.

As I looked through her file I was immediately struck by her IQ score. Her Verbal Scale score was 52 points greater than her Performance Scale score. I knew that such a disparity was quite rare and often indicative of a cognitive and/or emotional problem. In a discussion with her parents she was described by them as a mature girl, who tended to be serious. In class, her stare would be best characterized as having a far away quality. It was not uncommon to repeatedly call on her in order to get her attention. When I shared my concerns about her IQ disparity and her behavior to a professor and former child supervisor, they both warned that such a disparity was probably a sign of pathology. They referred to such highly verbal children as often "living in their heads", leaving them less able to pick up on external cues.

Both of these seasoned clinicians also voiced their concern that the large Verbal Scale score to Performance Scale score disparity could possibly be an indication of a sealed over psychosis or a schizoid personality configuration. This final point is pertinent in that it reflects one of many commonly held misconceptions about large scaled score differences on IQ tests, particularly when dealing with the gifted population. This issue will be further elaborated in the section devoted to this topic.

The clinical observation that children with such disparities "live in their heads" fuels this investigation. Intuitively, the notion of such children possibly being too internally drawn seemed right on the mark. In fact, most if not all of the children's teachers felt the observation captured their own experiences with this subgroup of students.

When the feedback provided by the two clinicians was presented to the director of the program, he replied that such disparities were not uncommon in gifted children and instructed us to wait before acting rashly. As it turned out, the child was able to complete the program without

incident, although she never really connected with the other children. In time her peers learned to tolerate her eccentricities, though she remained on the periphery of the group right through graduation. Although she was able to graduate, her relative difficulties in connecting with and relating to both her peers and teachers throughout her stay in the program, initiated in me an interest in pursuing whether a relationship does exist between significant disparities on the WISC-III and levels of object-relatedness, the underlying templates of interpersonal interaction.

As I gained more experience in my role as Guidance Counselor, I became aware that a great many of the children who had such disparities, specifically with strengths in the verbal sphere, often exhibited some of the same "out of touch" behavior. A male student with a 38 point discrepancy was once voted by his peers as being the most likely to "go to the moon without a spaceship". Characterizations such as this were often expressed by the children themselves or their peers.

Importance of the study

It is not the claim of this investigation that children with such disparities were willingly being awkward interpersonally. Rather, in a relative sense, their abilities to pick up on external cues, and to respond appropriately to such cues, did not seem to be as developed as with children where such a disparity was not present. Whether a child wishes to engage his/her peers or not, is secondary to an ability to do so. For many of these children with a significant disparity, their willingness seemed to often be limited by their abilities. It continues to be my belief that these children, for all of their good intentions, lacked the necessary skills to engage others as effectively as their peers. These social shortcomings are seldom lost on the children in question or their peers.

The goal of this thesis is to investigate the following question: Do gifted children with significant Verbal-Performance discrepancies, with specific strengths in the verbal sphere, have a less adaptive object relations make-up, i.e. the intrapsychic images and experiences of self and others.

The various attempts to explain large Verbal-Performance discrepancies present in the literature, speak to a desire to make sense of individuals whose cognitive strengths and styles are skewed in either direction. The subtests of the WISC-III concentrate on both separate, and in several instances, convergent skills. This fact creates difficulties when attempting to draw conclusions from point differences between or within the Verbal Scale and the Performance Scale. At the same time, significant differences are pointing to some kind of phenomenon. The section on Verbal-Performance disparities will explore the type of research and questions that this issue has provoked.

This study will look at significant disparities between the Verbal Scale score and the Performance Scale score from a psychodynamic perspective. This focus originated from the clinical observation that the children with significant disparities, with strengths in the verbal sphere, did not seem as well related as their peers. A link is thus being made between the psychological construct of relatedness (object relations make-up), and cognitive functioning (performance on the WISC-III). This link will be further elaborated in a subsequent section.

In the incoming class of 1994, there were 30 out of 154 children with Verbal-Performance discrepancies of 28 points or more. In only one instance was the Performance score greater. This skewing in the direction of the Verbal Scale score is more an indication of the strengths that the organization targets for its existing curriculum than it is a real sampling of the gifted minority

population. The question of giftedness and how it is defined and tested for will be explored in an upcoming section.

The relevance of this study can be presented from various points. First and foremost, there is very little empirical research available on intellectually gifted minority children. Passow (1979) has voiced the feelings of many by claiming that the talented and gifted minority student is one of the most ignored and unmined of human resources. Where there exists an abundance of research done on predominantly white, middle class gifted children, the amount of research done on gifted children of color is appallingly low. A recent review of the literature since 1924 reveals that of the many articles devoted to the gifted, less than 2% address minority group members (Ford and Harris, 1992). Secondly, the myriad of problems faced by such children in general, and minority gifted children in particular, requires further exploration and understanding (Betts, 1986; Betts and Neihart, 1985; Exum and Colangelo, 1981; Ford-Harris, Shuerger, and Harris III 1991; Lindstrom and Van Sant, 1986). There is a dearth of information and research that focuses on the intellectual, emotional, and social experiences of gifted minority children. One goal of this investigation is to begin to help fill this gap. Finally, there exists very little psychodynamic research with gifted minority children. It is the firm belief of this author that minority children have just as much to right to be seen through the psychodynamic lens as they do through the more common cognitive/social/cultural framework. It is the task of this investigation to be well informed by the impressive and important body of work produced by the latter, while still maintaining a psychodynamic focus.

CHAPTER II

REVIEW OF THE LITERATURE

Defining Giftedness

This investigation will focus on one specific aspect of giftedness, intellectual ability. There have been long standing arguments about how one defines giftedness and just as importantly, how one then tests for such talent. In 1976 the U.S. Office of Education defined giftedness as including the following elements: (1) possesses demonstrated or potential ability; (2) needs a differentiated educational program to realize that potential; and (3) possesses abilities in one or more of the identified categories of general intellectual ability, specific academic aptitude, creative and productive thinking abilities, talent in the visual and performing arts, and leadership ability (Maker, 1983). Problems of under-representation of minority groups such as African Americans and Latinos in gifted programs, and their over-representation in special education for the disabled programs, are well documented (High and Udall, 1983; Johnson, Starnes, Gregory, and Blaylock, 1985; Maker, 1983; Richert, 1987). The use of IQ tests to measure both aptitude and intellectual ability have deservedly come under attack. There is now a growing body of researchers who are trying to broaden the concept of giftedness beyond a single test score (Frasier, 1987; Maker, 1983; Richert, 1987; Whitmore, 1987).

In fact, most attempts to identify and nurture giftedness in traditionally under-served populations have produced a variety of instruments and techniques that are believed to be better suited to such populations (Johnson, et al. 1985; Frasier, 1987; Maker, 1983; Richert, 1987). At the core of these attempts to redefine giftedness beyond what has been popularly held as such, is

the belief that in under-served, underprivileged communities, there are too many other factors that actively impinge upon a child's ability to perform up to a given standard that are not addressed in the more traditional methods of measuring giftedness.

Frasier (1987) encapsulates the struggle to define giftedness quite clearly by stating that any attempt to define giftedness without addressing the issues of: where standardized tests fall short in assessing the exceptional abilities of minority children (Alvino and McDonell, 1982; Davis and Rimm 1985; Kitano and Kirby, 1986; Richert); the low referral rates for gifted programs from both parents and teachers (Clark, 1983; Davis & Rimm, 1985; Kitano & Kirby, 1986); the effect of low socioeconomic status on receiving an equal education (Clark, 1983; Gallagher, 1985: Kitano and Kirby, 1986; Maker, 1983); as well as the cultural and class differences in the manifestation of gifted behaviors (Baldwin, 1985; Clark, 1983; Davis and Rimm, 1985; Frierson, 1965; Gay, 1978; Kitano and Kirby, 1986; Torrance, 1977), cannot be an apt definition. There is an increasing awareness that such factors need to be part of the overall equation when defining and identifying giftedness in minority children (Frasier, 1987).

When each of the above points is viewed separately, it becomes clear that the identification of giftedness in the minority population has a history of having to contend with various issues that are not of concern in relation to the majority community. Traditionally, intelligence testing has been a well accepted indicator of talent. Kaufman (1994) claims that the Wechsler intelligence tests measure what the individual has learned. Consequently, any and all attempts to interpret IQ scores as being a partial indicator of innate talent is fundamentally flawed. There continue to be long standing arguments that such tests are often misused, especially when they are interpreted as being representative of the entire child. One of the more common and heated points of contention

is based on the claim that IQ tests are racially and culturally biased. There is, however, a great deal of conflicting research results on this point (Kaufman, 1979). While some authors claim that intelligence tests are specifically biased against racial groups outside of the majority (Mercer and Brown, 1973; Hilliard, 1975, 1976; Williams, 1972, 1974), others have found that there exists no inherent bias against racial minorities in intelligence tests in general (Jensen, 1976), and the WISC-R specifically (Miele, 1979; Sandoval, 1979).

Kaufman's (1994) distinction that the tests are culturally loaded but not culturally biased has important ramifications. If one treats IQ tests as achievement tests, then lowered scores should be a sign that greater resources are required to assist a particular population. However, if the tests are interpreted as a measure of aptitude then poor performance on these tests can be seen as a justification to limit or withdraw educational resources from a given population (Flaugher, 1972; Kaufman, 1979). When used judiciously, test interpretation and translation of test findings can often be a helping agent in seeking better resources rather than a damning statement of a given child's destiny (Kaufman, 1994).

The intellectual integrity of individuals like Kaufman has produced positive results. The antiquated misuse of intelligence tests as being an all encompassing representation of a child has become increasingly viewed as narrow minded and erroneous. Most of the research does support the position that the tests are non-biased in so much that if all individuals were exposed to the same amount and kind of educational preparation, there would be no distinction between race and gender on these tests. At the same time it is quite obvious that children in this society do not receive the same educational upbringing. Differences in the type and quality of educational resources offered are based on socioeconomic status, race, and gender.

Recently there has been a surge in backwards thinking on this point. With the publication of The Bell Curve (Hernstein and Murray, 1994), the claim is made that differences in IQ scores are based on deficiencies within the individual as opposed to deficiencies in the educational system. Individual deficiencies are tied to race and socioeconomic status. It is this very type of narrow minded, mean spirited politicalization of IQ scores that Kaufman and other informed educators/psychologists argue against.

One of the criticisms directed towards the more traditional ways of understanding giftedness, especially for minority members of the society, is that the standards set by the majority population reflect values and ways of dealing with the world that are more specific to the majority culture (Maker, 1983; Ogbu, 1987). Consequently, in order to be viewed by that culture as being gifted one must essentially play by the majority culture's rules. When one begins to appreciate the long history of racism in the United States, "playing by the rules" takes on another level of complexity. Implicit in this struggle is the fear that even if someone does play by the rules, the color of his/her skin will create a glass ceiling in academic, career, and social situations (Ogbu, 1987). There exists an understandable mistrust in several minority communities for what the majority population merits to be of value (Lindstrom and Van Sant, 1986; Maker, 1983). These issues will necessarily serve as a backdrop for this investigation.

Problems Facing Gifted Minority Children

Being gifted has its own set of burdens (Betts, 1986; Betts and Neihart, 1985; Colangelo and Zaffran, 1979). Being intellectually gifted and a member of the minority population is even more burdensome (Colangelo and Zaffran, 1979; Exum and Colangelo, 1981; Ford-Harris, et al. 1991; Lindstrom and Van Sant, 1986). At the heart of the intellectually gifted minority child's

dilemma is the sense that he/she just does not fit in. Gifted children often feel an acute sense of being different (Lindstrom and Van Sant, 1986). They often have the experience of possessing something which is at once enviable and yet undesirable (Lindstrom and Van Sant, 1986). In the case of minority children these difficultiescan be heightened. For these children, the perception of their giftedness cannot be extricated from the complex dynamics of being a member of a minority group in American society (Colangelo and Zaffran, 1979).

The sense of being different that follows being labelled gifted, as well as the repercussions of such an identification in the child's social sphere, can be quite unsettling. Suddenly a child can find him/herself an outcast in his/her own community. This is partly due to the community's uneasy feelings about intellectual giftedness leading to the individual's becoming "white" in attitude and behavior, or, worse, "selling out" (Ford-Harris, et al. 1991). Consequently, such children can find themselves caught "between a rock and a hard place" (Lindstrom and Van Sant, 1986).

When the program being used in this study was founded in 1978, it was felt that rigorous academic training alone would be enough to prepare the children for their transition into the somewhat rarified world of private education. In time, it became apparent that the children would be better served by not only being prepared intellectually, but emotionally as well. Gradually, the importance of the social/emotional well being of each child took on an importance that had been previously minimized. During my tenure on staff I had observed that very often children enter the program hoping to be finally accepted, appreciated, and understood for who they are. In many instances this hope of finally being around one's peers was realized. At the same time there were many children who entertained the same hope, only to be disappointed. Despite being in a

program designed to meet their intellectual needs, they continued to have problems fitting in with their peers. The question as to how the specific children with the significant disparities have and will experience others, i.e. their object relatedness, is at the heart of this investigation. It is important to note, however, that the manifestation of relative social problems within this specialized setting is not, by any means, limited to the children with the significant disparities.

Object Representations

In its broadest terms, object representations refer to conscious and unconscious mental schemata, including cognitive, affective, and experiential dimensions, of objects encountered in reality (Lerner, 1991). The shift within the psychoanalytic movement from Freud's physiologically based drive model, where the infant is viewed as being primarily pleasure seeking, to an object relations theory, where the infant is viewed as being fundamentally object seeking, has forced a reformulation of how psychoanalysis deals with development, pathology, and reality based experiences. Within this new paradigm, the infant's interaction with its environment, and more specifically its caretaker, is no longer viewed as an important means by which to attain pleasure, but is now viewed as being gratifying in its own right.

As the infant matures, the schemata evolve from vague, diffuse sensory motor experiences of pleasure and unpleasure, to gradually developing and expanding into well differentiated, consistent, and relatively realistic representations of the self and object world (Lerner, 1991). From a developmental perspective, the earlier forms of representations are based on action sequences associated with need gratification; intermediate forms are based on specific perceptual and functional features; and higher forms are thought to be more symbolic and conceptual (Blatt, 1974).

The developmental continuum espoused by this perspective is further supported by research done with pathological populations. This research has demonstrated that borderline patients can be distinguished from schizophrenics by their relatively better capacity for internalization and inner representation based upon their somewhat higher degree of object cathexes. Rosenfeld and Sprince (1963, 1965) also found that the borderline patient was more often interested in the function of the object than in the object for its own sake. This finding is consistent with Blatt's (1974) formulation that developmentally early object representations are based primarily on action sequences revolving around need gratification. Within this perspective, borderline patients can be viewed as arrested at earlier developmental levels, than the normal population, of object representation (the sensorimotor and perceptual) in which actual contact or interaction with the other is necessary in order to maintain an affective experience of its presence (Sugarman and Lerner, 1980).

This affective component of personality organization is further elaborated in Blatt's (1974) differentiation between anaclitic and introjective depression. According to this study, the most cogent features of anaclitic depression are feelings of hopelessness, weakness, and depletion accompanied by fears of abandonment and subsequent need for direct contact with love objects. The introjective depressive is more often characterized by feelings of worthlessness, guilt, and failure to live up to expectations, along with fears of the loss of approval, recognition, and love (Sugarman and Lerner, 1980). Based on these findings one might speculate that the introjective depression is closer to the neurotic end of the spectrum than is the anaclitic depression.

Besides the presence of strong affective components in the borderline patient's make-up, there also often exists an intermittent manifestation of psychotic ideation. For these patients, the

content of the psychotic material has close ties to the given affective configuration. This phenomenon is not specific to the borderline patient. The manifestation of schizophrenic thought disorders is often defined by psychoanalytic clinicians as an inability to successfully traverse the symbiotic stage (Mahler, Pine, and Bergman, 1975) as well as an inability to develop a relatively secure differentiation of self from object representations (Sugarman and Lerner, 1980). Blatt and Wild (1976) posit that the failure to develop this boundary in adequate fashion promotes the blurring of many other boundaries and leads to fusion and condensation in the thought processes (Sugarman and Lerner, 1980).

Although there is some debate as to how this actually occurs, i.e. questions of sequencing, structuralization, or the impact of innate and environmental factors, there is a growing consensus that, as Mayman (1967) claims, the unconscious representations of early relationships are quite durable, and impact later functioning in profound ways. These object representations, or internal images, are thought to constitute a residue within the mind, of relationships with important people in the individual's life (Greenberg and Mitchell, 1983). The internalization of these crucial exchanges with others go on to influence subsequent attitudes, reactions, and perceptions. As an individual goes through life, he/she not only reacts to and interacts with an actual other but an internal other as well (Greenberg and Mitchell, 1983).

Consequently, questions arise about the interplay between an individual's inner world with their experience of the outer world. Recent psychoanalytic theory and research has focused on exploring the relationship between real, external people and internal images and residues of relations with them, and the significance of these residues for psychic functioning (Greenberg and Mitchell, 1983). The increased importance given to cognitive structures within psychoanalytic

research and theory has spawned theoretical links between the psychoanalytic and social-cognitive schools.

Object Relations and Social Cognition

The shift in the psychoanalytic movement from Freud's biologically determined drive theory, to an object relations perspective, created links with the social cognitivists that had previously been non-existent. The ground breaking works of Melanie Klein, W. Ronald D. Fairbairn, Harry Guntrip, and Donald Winicott set the stage for a psychology based on the interpersonal world of the infant. This shift in emphasis has evolved into an object relations theory that focuses on the nature and development of mental representations of self and others, and on the cognitive and affective processes brought to bear on these representations (Westen, 1991).

Several social cognitive theorists and researchers have begun to draw on psychoanalytic conceptions for their own work. For example, Ogilvie (1987) has explicitly referred to Freud's ego ideal in his research on life satisfaction: Raskin (Raskin and Terry, 1988) has developed a self report measure of narcissism: and Anderson and Cole (1990) have drawn on psychoanalytic conceptions of transference in interpreting the meaning of their findings on the cognitive structures of representations of significant others and the influence of those representations on social perception (Westen, 1991).

Although the above mentioned authors as well as Horowitz (1987, 1988) have made important integrative contributions between psychoanalysis and cognitive theory and research, Westen (1991) has most actively sought to find and create links between the two schools. His attempts at integration have been applied to clinical and theoretical issues such as moral development (Westen, 1985, 1986a), narcissism (Westen 1990b), transference (Westen 1988), the

change process in short term psychotherapy (Westen, 1986b), cognitive-behavioral interventions in the psychotherapy of borderline patients (Westen, 1990c), and theories of object relational development (Westen, 1989, 1990d).

Much of the work done on the representational structures underlying attachment behavior (Bretherton 1985; Hazan and Shaver, 1987; Kobak and Sceery, 1988; Main, Kaplan, and Cassidy, 1985; Ricks, 1985; Stroufe and Fleeson, 1986; Zeanah and Zeanah, 1989), is particularly relevant to the integration between cognitive and dynamic thinking (Westen, 1991). From Bowlby's (1973) ground breaking work on attachment theory has sprung research which suggests that internal working models of self, caregivers, and the attachment relationship mediate attachment-related behavior.

An empirical basis for this theory was developed by Mary Ainsworth (Ainsworth, Blehar, Waters, and Wall, 1978). Using a technique she termed the Strange Situation, Ainsworth and her researchers began observing mothers and children in their homes, paying careful attention to each mother's style of responding to her infant in a number of fundamental areas; feeding, crying, cuddling, eye contact, and smiling (Karen, 1990). At twelve months the infant and the mother were taken to a lab and the infant was observed as the mother was taken away from him/her. For two periods a stranger was in the room with the infant, for another the baby was left alone (Karen, 1990).

Ainsworth then labeled three distinct types of attachment behavior; securely attached, insecurely attached, and anxiously attached. When a child who is not securely attached experiences maternal rejection or avoidance of intimate contact he/she will most likely develop negative representations of self and mother. Due to the distressing nature of these interactions,

a child may avoid both intimate relationships, which are associated with distress, and consciousness of how alone or hurt he/she feels (Westen, 1991).

The research related to emotion bears on the influence of strategies of affect regulation on the representation of self and others. Associations have been made by several researchers, (Cassidy and Kobak, 1987; Kobak and Sceery, 1988: Main, et al., 1985), between idealized and incoherent relationship representations, on the one hand, and insecurity of attachment on the other (Westen, 1991). There is a considerable body of research (Ainsworth et al., 1978; Emde, 1988; Erickson, Stroufe, and Egeland, 1985; Ricks, 1985) that highlights the influence of maternal unavailability and negative affective experiences in the mother child relationship on the development of insecure patterns of attachment, later social maladaptation, and presumably maladaptive internal working models (Westen, 1991).

The shift within the psychoanalytic school from drives to object relations is tied to the social-cognition framework in that object representations consist of the cognitive representations of particular people, the wishes and emotions attached to these representations, and the fantasies and fears about the self and significant others that have been seen as being critical in mediating interpersonal functioning (Westen, 1991).

By positing that the pre-verbal, affectively laden communication between the infant and caretaker is of fundamental importance in determining the course of both psychological development as well as the individual's ability to engage effectively with others, the object relational approach shares common ground with recent work done in the cognitive field. From a cognitive perspective the claim is made that before the development of a cognitive apparatus organized to a great extent by semantic networks (Collins and Loftus, 1975) and higher level

control processes (Shiffrin and Schneider, 1977) children tend to organize and retrieve social information (and particularly person schemas or object representations) to a greater extent than adults on the basis of affective valence (Westen, 1991). The work that has been done on the relationship between affect and social cognition (Bower, 1981; S.G. Gilligan and Bower, 1984; Isen, 1984) proposes mechanisms to account for the influence of affect on encoding and retrieval of social information (Westen, 1991).

Both object relations theorists and social cognition researchers have focused on the representational processes underlying interpersonal functioning as being central to understanding psychological development. Object relational theorists, when attempting to empirically demonstrate this phenomenon, have relied almost exclusively on the use of projective tests.

Psychological Assessment of Object Representations

The psychoanalytic movement has greatly evolved with the development of an object relations perspective, an expanded psychodynamic developmental theory (Blatt and Wild, 1976; A. Freud, 1965; Jacobson, 1964; Mahler, Pine and Bergman, 1975; Stern, 1985), as well as Kohut's (1971, 1977) systematic psychology of the self (Blatt and Lerner, 1983). When combined, these psychoanalytically based theories stress the complex interactions between early object relations and the development of intrapsychic structures (Blatt and Lerner, 1983).

Development in a given psychological theory must be matched by similar advancements in the testing of that theory's constructs. If anything, the elaboration of psychoanalytic theory beyond concepts of drive has given rise to a re-evaluation of the usefulness of psychological testing. Historically, psychoanalysis had been faulted for not being able to, or seemingly not caring to, quantify it's theoretical suppositions. It is no longer the case that psychological test

theory and method are concerned solely with thought process and instinctual issues, but must now include a consideration of the quality and nature of object representations and interpersonal relationships (Blatt and Lerner, 1983).

> "In addition to the traditional focus on ego structures, cognitive styles, and impulse defense configurations, often couched in abstract metapsychological language, psychological test assessment must now include a fuller consideration of phenomenological, experiential, therapeutically relevant constructs such as self and object representation. These constructs...can allow us to formulate clinically meaningful generalizations about patients' experiences in an interpersonal matrix." (p.8)

The use of projective techniques has greatly broadened the psychoanalytic study of people. These tests have been used in the investigation and systematic assessment of object relations (Blatt, Brenneis, Schimek, and Glick, 1976; Blatt and Lerner, 1983; Gorney and Weinstock, 1980; Kwawer, 1980; Mayman, 1967; Spiro and Spiro, 1980). More specifically, the study of the human form on the Rorschach has provided an ideal data base for assessing an individual's representational world, his/her conception of people, including him/herself, and their actual and potential interactions (Blatt and Lerner, 1983). Object representations are defined in the literature (Beres and Joseph, 1970; Sandler and Rosenblatt, 1962) as the complex mental schemata of significant objects encountered in reality. These object representations are thought to have both structure and content (Blatt and Lerner, 1983).

Object Representations and The Rorschach

The use of the Rorschach as the primary source of empirical data collection of object relations theory is somewhat odd given that the test itself predates the emergence of object relations theory. Initially, Rorschach interpretation was seen as a technique used to assess an individual's structure of personality, with particular emphasis on understanding the unconscious

manner in which he or she responds to and organizes his or her environment (Groth-Marnat, 1990). It is a basic assumption of the Rorschach that stimuli from the environment are organized by a person's specific needs, motives, conflicts, and certain perceptual sets (Groth-Marnat, 1990). Due to the ambiguous nature of the inkblots, the need for organization becomes more exaggerated, extensive, and conspicuous (Groth-Marnat, 1990).

It is the very ambiguity of the ten inkblots that so many object relation theorists find intriguing about the Rorschach. In another commonly used projective test, the Thematic Apperception Test, more commonly referred to as the TAT, the unambiguous representation of human figures engaged in various social situations might not pull for deeper, unconscious experiences because it is unambiguous and so, offers too much of a frame of reference for the individual. The utility of the Rorschach in assisting both clinicians and researchers make these links is not lost on Shapiro (1965). From his perspective the Rorschach can provide a means by which "thinking and perceiving become the primary material from which inferences concerning diagnosis, defense mechanisms, and character traits are drawn". (p.2)

The evocative nature of the Rorschach has been seen by object relations theorists as revealing characteristic modes of perceiving self and others, and that these characteristics modes have significant effects on how the subject experiences and behaves towards others, and the responses he/she elicits from the environment (Kuhn, 1994). Perhaps no one has better captured the Rorschach's usefulness in testing for object representations than Mayman (1967).

> "When a person is asked to spend an hour immersing himself in a field of impressions where amorphousness prevails and where strange or even alien forms may appear, he will set in motion a reparative process the aim of which is to replace formlessness with reminders of the palpably real world. He primes himself to recall, recapture, reconstitute his world as he knows it, with people, animals, and things which fit most naturally into the ingrained expectancies around which he has learned to structure his phenomenal

world... (A) person's most readily accessible object-representations called up under such unstructured conditions tell much about the inner world of objects and about the quality of relationships with these inner objects toward which he is predisposed." (p.17)

Two Rorschach Object Relations Scales : a review

As explored by Blatt and his colleagues (Blatt, Brenneis, Shimek, and Glick, 1976), the field's burgeoning interest in the concept of the object has roots in developmental psychology (Piaget, 1954; Werner, 1948; Werner and Kaplan, 1963) and in psychoanalytic theory (Jacobson, 1964; Mahler, 1968). The concept of the object has been studied in normal development (Scarlett, Press, and Crockett, 1971; Signell, 1973) and investigated in psychopathology in children and in adults (Bannister and Salmon, 1966; Blatt, 1974; Blatt and Wild, 1976; Blatt, Wild and Ritzler, in press; Reker, 1974; Whiteman, 1954).

The work done on severe psychopathology, particularly with schizophrenics (Searles, 1965; Mahler and Furer, 1968), has explored the schizophrenic's difficulty in maintaining the distinction between human and nonhuman and how this important dimension in psychosis is related to the child's failure to differentiate him/herself and mother as whole separate objects (Blatt, Brenneis, Shimek, and Glick, 1976).

From a structural perspective, the concept of the object has been discussed in terms of developmental principles (Werner, 1948; Werner and Kaplan, 1963), of differentiation, articulation, and integration (Crockett, 1963), and in terms of dimensions of cognitive organization (Bieri, Atkins, Briar, Leaman, Miller, and Tripodi, 1966; Todd and Rappoport, 1964; Warr and Knapper, 1968).

In 1976, Blatt, Brenneis, Schimek, and Glick developed a comprehensive scale for assessing the organizations and content of the concept of the object by developing procedures for

assessing the representation of human figures on the Rorschach in terms of the degree of differentiation, articulation, and integration (Blatt and Lerner, 1983). This scale had been developed in part because the importance of the human response on the Rorschach procedure had been noted in a variety of contexts, but with a minimum of theoretical elaboration (Blatt, Brenneis, Schimek, and Glick, 1976).

Previously there had been work that established that the appearance of human responses varies directly with cognitive development and social maturity (Draguns, Haley, and Phillips, 1967), is consistent over time for the same subject (Schimek, 1968), occurs frequently in the records of well adjusted normal adults (Barry, Blyth, and Albrecht, 1953; Rapaport, Gill and Shafer, 1945), and becomes increasingly complex, and integrated with age and psychological health (Friedman, 1953; Hemmendinger, 1960). There also appears to exist a continuum where distorted human responses, particularly human-inanimate blends, increase in frequency across patients as severity of pathology increases (Blatt, Brenneis, Shimek, and Glick, 1976).

Blatt's Developmental Analysis of the Concept of the Object Scale (DACOS) is derived from both developmental and psychoanalytic psychology. Kernberg (1966) conceives of personality structure as a configuration of differentially "metabolized" internalization. The extent to which the degree and nature of mental representations are integrated, is dependent on the nature of the internalization process. The more primitive the internalization the more the self and/or other are experienced as either highly idealized and perfect or empty and persecutory (Krohn and Mayman, 1974).

The DACOS is used to assess the developmental level of total and partial human and quasi human-figures (Blatt and Berman, 1984). Blatt and his colleagues (1976) demonstrated that these

various dimensions develop longitudinally from early adolescence to adulthood, and that they can differentiate between normals and patients (Blatt and Berman, 1984). Where the earliest object representations begin as "vague, diffuse, variable, sensorimotor experiences of pleasure and unpleasure, representations gradually expand and develop into differentiated, consistent, relatively realistic representations of the self and object world" (Blatt and Lerner, 1983, p. 8). Blatt's (1974) hypothesized developmental continuum posits that earlier forms of representation are based on need gratification, intermediate forms are based more on specific manifest perceptual features, and higher forms are more symbolic and conceptual (Blatt and Lerner, 1983). Thus human and quasi human responses are scored on the DACOS based on their degree of differentiation, articulation, and integration (Blatt, et al., 1976)

Blatt et al., (1976) conducted a longitudinal study that compared the assessment of object relations on the Rorschach between 37 normal subjects and 48 adolescent young adult inpatients. The study was conducted of the normal subjects at ages 11-12, 13-14, 17-18, and 30. As was expected, this sample group showed an increase in well-differentiated and articulated human figures, behaving in meaningful, benign, reciprocal fashion. By contrast the sample of 48 inpatients produced human figure responses that were significantly more likely to be partial, distorted, and inaccurately perceived, and either inert or engaged in less than congruent activity. This same sample also produced more representations of malevolent interactions on accurately perceived responses, and a greater number of benevolent interactions on inaccurate responses.

An interesting and unexpected finding was that patients consistently gave a significantly greater number of human responses at lower developmental levels than did normals on accurately perceived responses and a significantly greater number of developmentally more advanced human

responses than did normals on inaccurately perceived responses. Blatt's et al. explanation for this finding sheds some light on the dynamic interplay between cognition and affect, and reality and fantasy. They discussed this finding in terms of the experience of psychotic patients, who appear more disorganized when attempting to integrate presumably painful reality, and relatively better organized when preoccupied with fantasy productions.

The DACOS has been used, in a number of studies, to differentiate various diagnostic categories, including restricting and bulimic anorexics (Piran and Lerner, 1988), schizophrenics and borderlines (Spear 1980; Spear and Sugarman, 1984), narcissists and borderlines (Farris, 1988), schizophrenics, inpatient borderlines, outpatient borderlines, and neurotics (Lerner and St. Peter, 1984a, 1984b), and nonpsychotic and psychotic patients (Ritzler, et al., 1980). In one other study (Spear and Sugarman, 1984), the DACOS did not distinguish between two borderline "subtypes" designated hysterical and obsessive. In that same study, the Urist (1977) Mutuality of Autonomy Scale did differentiate these groups.

Urist (1977) developed the Mutuality of Autonomy Scale (MOAS) as an attempt "to demonstrate the structural argument that individuals tend to experience self-other relationships in consistent, enduring characteristic ways that can be defined for each individual along a developmental continuum" (P.3). The range of the continuum corresponds to the various stages in the development of object relations, from primary narcissism to empathic object-relatedness. This developmental line reflects the gradual intrapsychic process of individuation and the child's changing conception of its relative embeddedness in, or psychic separateness from, figures in the external world (Urist and Shill, 1982).

In his original article, Urist (1977) defined the seven scale points along a developmental

continuum that ranged from a scale point of one which was based on mutual autonomy to a scale point of seven that was based on relationships that were characterized by an overpowering, enveloping, destructive force. The middle scale points of three and four were understood to represent relationships that were characterized by leaning and hanging on to one another to relationships that were characterized by one figure being a reflection or imprint of another. Tuber and Goddard (1989) further substantiated the content validity of the scale in general and the middle scale points specifically, when the children in the separation anxiety disorder group produced a significantly greater number of scale level 3 (clinging) responses than the control group.

Although Urist and Shill (1982) have offered a slightly revised version of the scale, this investigation will use the scale distinctions originally offered by Urist and further supported by Tuber (1992). In following Urist's original conceptualization, the first two scale points depict healthy, adaptive interactions in which the autonomy of the self is fully maintained. Scales points three and four depict symbiotic and narcissistic, respectively, types of interactions. The final three scale points (5,6,7), depict increasingly unbalanced interactions where the autonomy of one figure is seriously at risk.

The MOAS has gained increased use with child populations because it can be applied to any Rorschach percept that explicitly or implicitly depicts a relationship between human, animal, or inanimate objects (Tuber, 1992). This is particularly pertinent when assessing child populations because of children's tendencies to offer fewer human responses. The MOAS' utility in testing child populations was further enhanced by Tuber (1983, 1988) when he developed a manual for its use with this group.

Although initially conceived of by Urist as a developmental scale, research has not

supported this view. The MOAS, when used with children, appears to be an ordinal scale that depicts different modes of object experience of varying severity (Tuber, 1992). In reviewing several studies where the MOAS was used with child populations, Tuber (1992) concluded that the MOAS had not been found to correlate with chronological age. For example, the distribution of MOAS scores for 4- to 5-year old children with imaginary companions was not significantly different from that of latency age samples. These findings further substantiate the claim that the MOAS measures varying levels of adaptive and pathological object representations, but is not linked to a developmental timetable (Tuber, 1992). These findings are clearly not in line with the more traditional psychoanalytic thinking espoused by Klein (1937) and Mahler, Pine, and Bergman (1975), on which Urist based his developmental claim.

Several of the studies cited by Tuber (1992) draw links between object representations and thought organization (Blatt et al, 1990; Tuber, 1983). The Blatt et al. (1990) study found MOAS scores were highly correlated with Rorschach measures of thought disorder, as well as other behavioral indices of psychopathology. In the Tuber study (1983), malevolent MOAS scores were closely linked to other Rorschach measures of thought disorder and poor form level in the child psychiatric populations of children with gender identity disorder and separation anxiety disorder. As Tuber (1992) aptly concludes "The intertwining of impairments in object representations and impaired reality testing suggests the intertwining of object relations and thought organization" (p. 191). The implications of this conceptualization for this study with be further elaborated in the discussion section.

Based on these findings, the MOAS would be better conceptualized as a scale of pathological to adaptive depictions of internalized object representations, without any connection

to a developmentally derived distribution of progressive object representations (Tuber, 1992). This reconceptualization should not detract from the MOAS' usefulness in assessing levels of object relatedness, but it does affect the conclusions one might draw.

As previously stated, theoretically, the MOAS draws on the separation-individuation themes found in the works of Kernberg (1966, 1975) and Kohut (1966, 1977), with particular emphasis given to the issue of the autonomy of others vis-a-vis the self, and conversely, the autonomy of the self vis-a-vis others (Urist, 1977). In order for figures, whether perceived and articulated or only implied, to be scored on the seven point scale, they must be engaging in some form or another. Acceptable levels of interrater reliability exist on the scale that assesses responses ranging from depictions of calamitous violence and destructiveness to portrayals of mutual, empathic relatedness (Blatt, Tuber, and Auerbach, 1990). The MOAS differs from the DACOS in that content rather than formal characteristics of the responses are scored.

The MOAS was first used with a group of 40 inpatients whose diagnoses ranged from neurotics in acute crisis to severely regressed schizophrenics (Urist, 1977). The Rorschach, autobiographical data, as well as results from a ward staff rating scale of patients' actual relationships, were used. The results of the study indicated that the MOAS was significantly correlated with the autobiographical data and the staff ratings. In an attempt to further prove the MOAS was effective independent of the other ratings used by Urist in the original study, Urist and Shill (1982) replicated the study using exclusively excerpted MOAS-scorable data. This replication study also achieved significant results.

The MOAS is particularly useful when testing children mainly because interactions between animals and inanimate percepts, as well human figures are scored. This particular aspect of the

scale has produced a great deal of interest and research in the object representations of young children (Coates and Tuber, 1988; Ryan, Avery and Grolnick, 1985; Tuber, 1983, 1988; Tuber and Coates, 1989). Ames and his colleagues (1974) had demonstrated, using a longitudinal, developmental design that younger children produced relatively few M or human responses, and that over time the number increased, while the number of animal responses decreased.

The MOAS has been used in testing both normal and different clinical populations. Tuber (1989) found that in a nonclinical sample of children, modal responses were from the benign end of the scale. This finding helped to strengthen the claim of content validity. Within clinical samples, the MOAS has been used to characterize boys with Separation Anxiety Disorder (Goddard and Tuber 1989) and depressed female adolescents (Goldberg, 1989).

Essentially, both the DACOS and MOAS are scales that measure both different and similar aspects of an individual's object relational world. Whereas these scales are used as personality assessment tools, the WISC-III, though helpful in assisting a clinician to determine certain personality traits, essentially measures intelligence.

The Use of the WISC-III

The amount of research conducted on the Wechsler Intelligence Scale for Children since its inception in 1949 could fill a modest library. With the introduction of the most recently revised scale in 1991, the passionate arguments that raged about the relevance and validity of intelligence tests in the 1950's persist to this day (Kaufman, 1994). Present day controversies about what intelligence tests measure, the political implications that certain present day authors are drawing, and the genetic determinism they are espousing, present quite clearly what damage can be done when such tests are reified.

For the purposes of this investigation, the WISC-III is being used as a specific measure of a particular capacity. While it is not thought that a given IQ validly represents the entire cognitive capacity of a child, value is placed on the test as an indicator of what a child is capable of achieving in the academic settings to which the child has been exposed and is likely to encounter. The administration of the WISC-III as an admissions tool, is but one aspect of the admissions process at this organization. By utilizing the WISC-III as part of the process, while including other assessments and considerations, (i.e. the degree of family involvement, socioeconomic status of the family, teacher recommendations, and motivational style of the prospective student) the WISC-III is one aspect of a multi-faceted evaluation. Such use of the WISC-III has been shown to result in a more valid and less biased prediction of a candidate's probable school success (Kaufman, 1994; Mercer, 1977). In fact, Kaufman (1994) suggests that when dealing with a gifted population, measures of creativity might aid in the identification of such children.

The fact that the children who are admitted are those whose strengths are in the verbal sphere reflects the emphasis and the values of the program. It is acknowledged that this emphasis on verbal abilities automatically omits children who could be defined as gifted under different criteria more geared towards identifying talented children whose verbal abilities may have been compromised by poverty, lack of early enrichment experiences, developmental delays, or differences in language or culture (Johnson, et al. 1985). Also, the changing face of America makes it necessary for sound testers to take into account such factors as the possible constraints the test places on children from bilingual homes as well as the dynamic interaction between the tester and the subject (Kaufman, 1994). There have been other attempts to address this issue by

relying more on Performance Scale scores on the WISC-III as opposed to Verbal Scale functions (Johnson, et al. 1985; Ortiz and Volloff, 1987). Kaufman (1979) himself makes the claim that greater Performance scores for disadvantaged children may suggest true intellectual ability despite inadequate learning experiences. Nevertheless, children who perform extremely well in the verbal sphere are indeed gifted. At the same time, information gathered solely from the administration of the WISC-III should never form the basis for such decisions as diagnosis or placement (Kaufman, 1994).

Verbal-Performance Discrepancies

By focusing on significant Verbal-Performance differences, this investigation follows in a long line of previous research influenced by this factor. Although there have been hundreds of such investigations focusing on the Verbal-Performance difference, there have been very few clear cut findings (Matarazzo, 1972; Kaufman, 1979; Zimmerman and Woo-Sam, 1972). Sattler (1988) summarized the possible interpretations associated with significant Verbal/Performance differences as relating to cognitive style, patterns of interests, sensory deficits, psychopathology (such as emotional disturbance or brain damage), deficiencies or strengths in information processing, or deficiencies or strengths in ability to work under pressure (Groth-Marnat, 1990). One consistent finding demonstrated that numerous delinquent populations have a consistently higher Performance to Verbal score (Andrew, 1974; Dean, 1977; Wechsler, 1944; Zimmerman and Woo-Sam, 1972).

Historically, large Verbal-Performance discrepancies exceeding 25 points have been equated with possible neurological dysfunction (Holroyd and Wright, 1965; Kaufman, 1979). Other researchers have found larger Verbal-Performance differences in children with documented brain damage than in children with suspected neurological impairment or in normal youngsters

(Black, 1974, 1976; Kaufman, 1979). Black (1974) subsequently concluded that differences of 15 points or greater might be predictive of neurological dysfunction. These findings however, have been tempered by contradictory findings (Bortner, Hertzig, and Birch, 1972). The lack of consistent findings may be partly due to poorly defined samples, or samples that fail to control for other variables. Just as important is the belief that large Verbal and Performance Scale scores may mean different things for different individuals (Kaufman, 1979). Thus, generalizations applied to specific populations is inherently problematic.

In Intelligent Testing with the WISC-III, Kaufman (1994) has outlined several factors that may contribute to Verbal-Performance discrepancies. He is quick to point out that a difference of fifteen points between children with identical scores can mean vastly different things. An example is given of a child with a previously undetected perceptual or auditory problem who may score poorly on either test, merely because of sensory loss. No real assessment of the child's abilities can be made until that child has been seen by a physician and the given condition is addressed. It is because of such reasons that Kaufman and so many others caution against over-generalizing when it comes to such disparities.

Also, Kaufman suggests that before interpreting large Verbal Scale score differences with Performance Scale score differences, one must first look for intratest scatter. He goes on to state: "Scatter among the Verbal subtest scores means that the child's so-called verbal intelligence was not primarily responsible for his or her scaled scores on the Verbal subtests, but that other variables loomed more important; hence the Verbal IQ represents an overview of a few diverse abilities or traits and does not correspond to a unitary entity." (p.107)

As documented by Kaufman (1994), there has been a great deal of work around the

possibility that a child's ability to express him\herself verbally or nonverbally is dependent on the dominance of one or the other cerebral hemisphere. While the left hemisphere processes linguistic stimuli, the right hemisphere specializes in processing visual spatial stimuli. Several investigators have supported the Verbal IQ-left hemisphere and Performance IQ-right hemisphere relationship (Kershner and King, 1974; Rourke and Telegdy, 1971; Rudel and Teuber, 1971; Rudel, Teuber, and Twitchell 1974). At the same time there are several other studies where such results have not been supported (Binder, 1976; Wener and Templer, 1976). Despite these contradictory findings, the possible relevance of hemispheric dominance should not be glossed over by future investigators (Kaufman, 1979).

Another possible explanation for such large disparities as offered by Kaufman (1994) concerns fluid versus crystallized ability. Although the theory has been primarily applied to adults, recent research has indicated that the fluid versus crystallized distinction is applicable to children as well (Catell, 1963, 1967; Kaufman, 1979; Undheim, 1976). Fluid ability involves problem solving where the key is adaptation and flexibility when faced with unfamiliar stimuli; crystallized ability refers to intellectual functioning on tasks calling upon previous training, education, and acculturation (Kaufman, 1979). Children from advantaged backgrounds more often exhibit the latter. Unfortunately, historically, many commonly used standardized tests focus on the same ability. As Kaufman points out, the fact that crystallized ability is considerably better than fluid ability as a predictor of conventional school achievement should not lead to pessimism for a child (culturally disadvantaged, learning disabled, or otherwise) who has a greater Performance score. Again the match between Verbal and Performance scales and crystallized versus fluid intelligence, respectively, is not set in stone but should be taken as a general reference

point.

It is recommended by Groth-Marnat (1990) that any interpretations relating to Verbal Scale to Performance Scale score discrepancies should be made taking demographics into account. Individuals of higher socioeconomic backgrounds are likely to have Verbal Scale scores that are significantly higher than their Performance Scale scores (Bornstein, Suga, and Prifitera, 1989). On the other hand, unskilled workers are more likely to have higher Performance Scale scores relative to Verbal Scale scores. If there is a reversal in the trends, for example a lawyer with a higher performance score, then the importance of the disparity becomes greater and should be further investigated (Groth-Marnat, 1990).

Intelligence and the WISC-III

Any and all attempts to provide an adequate definition for "intelligence" have been fraught with difficulty and controversy (Weinberg, 1989). Intelligence is an abstract concept that has no actual basis in concrete, objective and physical reality. Thus, it can only be known by its effects, yet its presence must be inferred (Groth-Marnat, 1990). Despite these inherent difficulties some have tried to offer a definition of intelligence (Binet and Simon, 1916; Wechsler, 1958; Piaget, 1950).

Because of the difficulties in defining "intelligence" attempts to measure this construct have been equally difficult and controversial. Binet's (1905, 1908) attempts were based on the premise that each individual possesses both a "chronological age" or actual age in years, as well as "mental age", which was indicative of the average intellectual abilities present within a specific age group. Terman (1916) built on Binet's work by reconceptualizing the intelligence quotient.

Unlike Binet, who did not specifically develop a theory of intelligence, Spearman (1927)

became concerned with what intelligence tests were supposed to be measuring (Groth-Marnat, 1990). He subsequently developed the general factor of intelligence, or the "g" factor, as it has become known. This theory holds that all types of intellectual activity are interdependent. It was Spearman's belief that different tests of intelligence were highly correlated and further observed that persons who dealt effectively in one area generally were effective in others as well (Groth-Marnat, 1990). Thurstone's (1938) theory was in direct contrast to Spearman's. He did not believe in the existence of a unifying "g" factor of intelligence. It was his contention that intelligence consisted of separate and specific abilities.

Wechsler's development of the Wechsler Adult Intelligence Scale (WAIS) and subsequent development of the WISC was guided by his conception that intelligence is global in nature and represents a part of the greater whole of personality (Groth-Marnat, 1990). A skilled clinician can determine a person's psychological strengths and weaknesses by comparing the results of each subtest. Certain inter/intratest patterns may speak to a certain strength in perceptual organization; a strong short term memory and low distractibility; an attentional deficit; a susceptibility to anxiety; or a good understanding of social norms. Although attempts have been made to distinguish clinical groups vis-a-vis their test taking style as well as their actual performance on the test, few clear cut findings have resulted (Piedmont, Sokolove, and Fleming, 1989a, 1989b).

Generally speaking, the Verbal Scale score is an index of a person's verbal comprehension abilities, while the Performance Scale score provides an estimate of his/her perceptual organizational abilities. It should be noted that both sets of skills are utilized across tests. There exists no pure test for either verbal comprehension or perceptual abilities (Groth-Marnat, 1990). The distinction between the Verbal Scale and the Performance Scale is not clear cut. Profile

interpretation has benefitted from the empirical technique of factor analysis (Kaufman, 1979). Within this framework, the three factors are identified as follows: Verbal Comprehension (information, similarities, vocabulary, comprehension), Perceptual Organization (picture completion, picture arrangement, block design, object assembly, mazes), and Freedom from Distractibility (arithmetic, digit span, coding). The results of the three different methods of factor analysis for each age group yielded the preceding pattern with striking consistency, which reinforced the robustness and meaningfulness of the three factors for all youngsters within the 6-16 year age range (Kaufman, 1979).

The factors of Verbal Comprehension and Perceptual Organization bear close resemblance to Wechsler's Verbal and Performance Scales, respectively. Despite the fact that the correspondence between the factors and scales is not identical, there is sufficient justification to assigning a primary role in WISC-III interpretation to the Verbal and Performance Scale scores and to consider these Scale scores as good estimates of the child's Verbal Comprehension and Perceptual Organization abilities.

The robustness of both factors across ages and for a variety of supplemental samples of exceptional and minority group children indicate that the Verbal and Performance Scale scores reflect a child's performance on real and meaningful dimensions of mental ability. Consequently, a significant discrepancy between the two scales may well suggest important differences in the child's learning style and ability to handle different types of stimuli (Kaufman, 1994). Had there not been such a high correlation between the factors and scales, then the Verbal Scale and Performance Scale dichotomy would have been of little psychological value (Kaufman, 1994). As it stands, the relationship between the two scales is unmistakable.

The Performance Scale is considered to be a useful indicator of an individual's degree and quality of non-verbal contact with the environment (Groth Marnat, 1990). The degree to which a given individual could understand, manipulate, and work with concrete situations was thought to be indicative of that same individual's capacity to engage effectively with her/his surroundings. Several of the Performance subtests speak directly to this assumption. The Picture Completion subtest focuses on an individual's visual acuity; awareness of environmental detail; reality contact; perception of the whole in relation to its parts; and an ability to differentiate essential from nonessential details (Groth Marnat, 1990). Impulsiveness often results in a lowered Picture Completion score.

Of all the Performance subtests, Picture Arrangement is perhaps the best indicator of an individual's degree of interpersonal experiences and abilities. In order to perform well on this subtest an individual must have the ability to comprehend a total situation and evaluate its implications; must posses visual organization and perception of essential visual cues; and have an ability to anticipate consequences of initial acts and plan ahead in social relations (Groth Marnat 1990). Individuals who perform well on this subtest are considered to be sophisticated and possessing of a high level of social intelligence (Groth Marnat, 1990).

The manner in which the subject tells the Picture Arrangement story can also be quite informative. As early as 1958, Wechsler recommended using the Picture Arrangement stories as projective material even though this suggestion was not included in the WAIS-R manual (Segal, Westen, Lohr, and Silk, 1993). Many trained clinicians have used this subtest as an opportunity to gather projective material. Some researchers (Segal, Westen, Lohr, and Silk, 1993) have taken this a step further and devised an object relations scale for the Picture Arrangement subtest of the

WAIS-R. In reviewing the literature, these authors were not able to find any references to research that systematically used stories told to the Picture Arrangement subtest as a means for assessing personality variables.

The ability to perform well on the Performance Scales can be interpreted from many perspectives. A strong performance can be indicative of strong perceptual organizational skills, an ability to work under time pressure, or of an individual who could be described as a "doer" rather than a "thinker" (Groth Marnat, 1990). An overriding strength in the verbal sphere as evinced by a high score on the Verbal Scale of the WISC-III is not necessarily an indication that a child is so internally drawn that they are in essence shielded from reality. To espouse a dichotomy between the two subscales as being representative of the internal world (verbal scale) and the external world (performance scale) would be simplistic and theoretically inconsistent. Within the Verbal scale there are numerous subtests that rely heavily on an individual's understanding and experiences of the environment. In fact the Verbal scales are highly influenced by an individual's environmental experiences. On the assumption that environmental and social exposures have been equal, some of the Verbal subtests, particularly the Comprehension subtest, best reflect an individual's degree of social judgment and common sense (Groth Marnat, 1990). The Vocabulary subtest is also dependent upon the range of ideas, experiences, or interests that an individual has acquired. What differentiates the two scales is the individual's ability to use the information and experiences of life that have been acquired (Verbal Scale) in an effective exchange with the environment (Performance Scale).

The distinction between those who can do as opposed to those who can think is of fundamental importance to this investigation. Effectively applying the verbal knowledge one has

gained may be particularly difficult for the subjects of this investigation. The disparity between the Verbal Scaled scores and the Performance Scaled scores, with the strength in the verbal sphere, lends itself to formulating the hypothesis that perhaps, such children might be too internally oriented, and consequently, relatively inadequately prepared to deal effectively with the outside world. The distinction between what has been learned in an educational context versus what has been learned through adaptability and flexibility is of great importance to this investigation. The children with the large disparities are hypothesized as being strong thinkers who are in the final analysis poor "doers".

Low Performance IQ's can also result from examinees who are obsessive or reflective. Where these traits might even enhance their Verbal scores, by offering an elaborated string of responses, these same traits will probably produce fewer bonus points on the subtests that require perceptual organization skills (Kaufman, 1994). Other factors that might depress a Performance score are coordination problems and time pressure problems (Kaufman, 1979). The tasks in the Performance subtests require a good deal of motor coordination. Consequently any child with difficulties in this area might have a lowered score that is not indicative of a cognitive but motor deficiency. The existence of such a deficit would most likely show up in the subtests of Block Design, Object Assembly and Coding (Kaufman, 1994).

A difficulty in dealing with time pressure tests is particularly relevant to this investigation. As Kaufman (1994) points out, some of the major causes of poor performance on timed tests are immaturity, anxiety, distractibility, reflectiveness, and compulsiveness.

Defining Verbal-Performance Disparity Significance

In order to base an assumption on a Verbal-Performance difference, one must first define

what constitutes a significant difference. Before determining the significance of a given difference, Kaufman (1994) strongly suggests ruling out other factors that may have contributed to the disparity. Kaufman claims that a discrepancy of 19 points in either direction, which in and of itself would qualify as being significant within a normal population, might not, under closer examination, be interpretable as such. For example, if the Verbal Scale score was higher, and the individual scored extremely well in both the Arithmetic and Digit Span subtests, and not nearly as well on the Information-Similarities-Comprehension-Vocabulary subtests, then interpreting the Verbal Scale score as a unitary construct indicative of superior verbal to performance strength would be erroneous. From the other perspective, if an individual did exceedingly well on the Symbol Search and Coding subtests, and not as well on the other Performance subtests, an interpretation of stronger performance to verbal skills could not be made. In both of these instances the higher score was in essence inflated by skills other than that which could be attributed to strictly verbal or performance strengths. Consequently the significant difference could not be viewed through the Verbal-Performance dichotomy. Kaufman concludes: "If either of the scales does not reflect a reasonable unitary ability, the V-P IQ discrepancy for the youngster may not be a very meaningful or interpretable concept." (p.107) However, once these factors have been accounted for, one can proceed with interpreting the Verbal to Performance discrepancy for significance.

Determining significance has historically been steeped in some controversy. In the normal population, some believe discrepancies of 12 points or greater need to be further investigated (Kaufman, 1979). Wechsler (1974) himself makes the same claim for differences of greater than 15 points. It is important to note that a significant disparity is not necessarily an indication of

abnormality. In the past, differences of 15 points or more were thought to be indicative of learning disabilities or even brain dysfunction (Kaufman, 1994). Yet, the mean Verbal Scale score to Performance Scale score discrepancy for the WISC-III standardization sample, ignoring the direction of the discrepancy, is 10.0 points, with a standard deviation of 7 to 8 points (Kaufman, 1994). According to Wechsler's (1991) own tables, 2 out of 5 normal children have significant Verbal to Performance IQ differences at the .05 level (11 points or greater) and about 1 out of 5 have significant differences at the .01 level (15 points or greater) (Kaufman, 1994). Consequently 25% of normal children have discrepancies that in the past have been interpreted as being possible indicators of abnormality (Kaufman, 1994).

Partly in response to this unfortunate trend of pathologizing normal children, Wechsler and Kaufman (1991) developed a table to more clearly ascertain whether a given discrepancy could be interpreted as being abnormal. According to their calculations, within the normal population, a Verbal Scale score to Performance Scale score discrepancy of 19-21 points occurs in the extreme 15% of that population. The breakdown extends to the most extreme 1%, or a difference of 32 points or more. Using this table, investigators should no longer solely rely on the statistical significance of the discrepancy to determine abnormality. A difference of 15 points, although significant at the .01 level, cannot be considered abnormal. Whereas a difference of 19 points between the Verbal Scale score and the Performance scale score can be considered abnormal using the most liberal (extreme 15%) criterion for abnormality (Kaufman, 1994). Again such interpretations can only be made after other factors have been accounted for. At the same time, Kaufman (1994) strongly suggests interpreting for abnormality, despite the fact that unitary measures may not be at play when the difference between the two scores is too great to be ignored.

Verbal-Performance Disparity and the Gifted Population

In his discussions with Kaufman (1994), Wechsler himself made it very clear that he did not intend for his intelligence tests to be used with extreme populations: "My scales are meant for people with average or near-average intelligence, clinical patients who score between 70-130." (Kaufman, p.xiv). According to Kaufman (1994), it was Wechsler's belief that applying these scales to individuals outside of this range was not sound clinical practice. Wechsler's complaint serves as a caveat against overzealous interpretation within exceptional populations. Because the initial WISC, and all subsequent revisions, were not intended to be used with exceptional populations, it stands to reason that the statistically derived norms for the tests are also not wholly applicable to groups outside of the originally targeted group. Thus, to draw conclusions from the normed tables regarding what is and is not a significant Verbal Scale score to Performance Scale score difference for high IQ children would not be a viable approach.

In fact, when dealing with intellectually gifted children, discrepancies of 15 points or more occur in over half of that population (Silver and Clampit, 1990). Silver and Clampit have strongly argued against the practice of interpreting high IQ children's scores via the normed tables. In response they have devised a table constructed from statistical theory that directly addresses the issue of large Verbal-Performance discrepancies in high IQ children. For obvious reasons, this table will be used for the purposes of this investigation. Although the table was constructed from statistical theory and the data in the WISC-R manual (Wechsler, 1974), by using the data from the actual standardization sample, it was confirmed that the theoretically derived figures correspond closely to the empirical distribution in the standardization sample (Silver and Clampit, 1990).

This adaptation for interpreting the Verbal-Performance discrepancies in high IQ children will hopefully dissuade clinicians and investigators from too easily interpreting abnormality within this group. According to this scale, a child with a discrepancy of 21 points whose higher quotient is 136, regardless of the direction, would occur rather commonly, within 20 to 25% of the cases. The original all children's tables would have labelled this discrepancy as occurring rarely, or in between 2 to 5% of the cases (Silver and Clampit, 1990). When this revised scale is compared to Wechsler and Kaufman's scale for determining abnormality, a discrepancy of 21 points occurs in the extreme 15% of the population. Hence, stricter criteria must be adhered to when determining what is a significant Verbal Scale score to Performance Scale score difference within the intellectually gifted population.

Statement of the Problem and Research Hypotheses

This investigation is rooted in a series of simple, human interactions. A child, an extremely intellectually gifted child, was experienced by both her peers and teachers as being eccentric and somewhat "out of it" in her everyday dealings with others. As time passed, I became increasingly aware that several other children in the program displayed similar odd styles of dealing with others. As I was pressed to explain some of the behavior as well as provide the children in question with a way to better connect with their peers and teachers, a common thread became apparent: extreme differences between their Verbal Scale to Performance Scale scores. For the purpose of this investigation a significant disparity is defined as a difference of at least 28 points between the two scales.

The literature pertaining to inter/intra-test differences on the Wechsler intelligence tests is replete with contradictory and unsubstantiated findings. At the same time, the review of the

literature did not reveal much research concerning object relatedness and significant disparities on the WISC-III. Also, the important contribution made by Urist, Mayman, and Blatt, et al, in the study of object representations and the use of the Rorschach play an important role in this study. Both the MOAS and DACOS scales will hopefully provide useful information in the assessment of object relations from both a dynamic as well developmental/perceptual perspective.

Based on the literature it is hypothesized that:

I. Children with the significant disparity will have a less adaptive object relational make-up as measured by the Mutuality of Autonomy Scale.

II. Children with the significant disparity will give significantly fewer OR+ responses, as measured by the DACOS, (the capacity for investment in satisfying interpersonal relationships) than children without a significant disparity.

III. Children with the significant disparity will give more OR- responses (the tendency to become invested in unreal relationships) than children without a significant disparity.

IV. Children with the disparity will have significantly lower RORSCORES responses (the combined OR+ and OR- scores where overall response productivity is controlled for) (Fritsch and Holstrom, 1990), than children without the significant disparity.

In the original Blatt et al. (1974) study human responses that were inaccurately perceived but developmentally more advanced seemed internally determined and elaborated because they had little contact with external stimuli. Yet these same responses were well articulated, organized, and integrated. Blatt et al. hypothesize that establishing contact with reality, at least in a conventional sense, brings with it lower developmental levels of thinking and malevolent content.

Although the extent of the pathology seen in the Blatt study is not expected to be replicated,

for the children in question are not thought to be pathologically disturbed, it is being hypothesized that there will be a relative difference on these very points between the two groups.

CHAPTER III

METHOD

This is a study of intellectually gifted minority children who are both disproportionately less capable with tests of visual-perceptual/motor problem solving than with tests of verbal reasoning, and who demonstrate relative problems in relatedness within a special school situation.

Setting

The WISC-III was administered prior to having been admitted into the program. The administration of the WISC-III occurred in various locations, and was carried out by numerous graduate students in psychology. Once admitted into the program, and after having met the criteria for inclusion set forth by the investigation, the Rorschach was administered at the specialized school setting, during school time, but strictly not during academic class time. Each child who completes the program's requirements will have been in residence for 14 months.

Subjects

During the period when the Rorschach protocols was administered all of the subjects for this study were enrolled in the program. For the purposes of this investigation, intellectually gifted minority children were defined by their inclusion in this program. The subject pool was divided into two groups, (30 experimental, 30 normal) based on the degree of disparity between the Verbal

scaled score and the Performance scaled score on the WISC-III. Significant disparity was based on a table derived from statistical theory (Silver and Clampit 1990) for the purposes of determining significant Verbal to Performance disparities in the gifted population. In order for a child to have been included in the experimental group, their Verbal Scale score to Performance Scale score disparity must have been at least 28 points. According to the table devised by Silver and Clampit (1990) a disparity of at least 28 points for a high IQ child would occur in less than 10% of the population. In order to insure that similar verbal skills were being compared, children in the control group were paired with children in the experimental group so that their Verbal Scale score was within 10 points, in either direction, of each other. See table 3A for a breakdown of these differences between the two groups. As noted in the table, the difference between the two groups on this variable was not significant.

In order to meet the other criteria for inclusion into the control group, a child also had to have no more than a 21 point difference between their Verbal Scale score to Performance Scale score. According to Silver and Clampit (1990), a difference of 21 points occurs in at least 25% of the intellectually gifted population. As noted in table 3A, the difference between the two groups on this variable was significant.

In an attempt to more accurately focus in on the factors that might contribute to a difference in subtest scores between the two groups, matched pairs were formed across various demographic variables. Attempts were made to pair matched subjects from both groups according to age, gender, ethnicity, number of parents in the household, and stated family income. There were no significant differences between the two groups on any of these comparisons. A breakdown of these findings is offered in table 3A.

Table 3A

Descriptive variables compared between the High Disparity and Low Disparity groups using t-tests or chi-squares[1].

	Experimental Group		Control Group				
Variables	M	SD	M	SD	df	t-value	p-value
Age (years)	10.59	0.55	10.70	0.60	54	0.71	0.48
No. of Responses	21.89	9.12	23.68	13.36	54	0.58	0.56
IQ scores:							
Verbal	137.18	7.13	134.86	6.41	54	1.28	0.21
Performance	103.75	7.09	122.18	5.84	54	10.62	0.01
	F		F			chi-square	
Gender:							
Girls	13		13				
Boys	15		15		1	0.00	1.00
Ethnicity:							
African Caribbean	10		12				
Hispanic American	6		8				
African American	9		5				
Asian American	3		3		3	1.61	0.70
Family Constellation:							
Both parents	15		15				
Single mother	13		13		1	0.00	1.00
Annual family income:							
< 19,000	8		7				
20-39,000	11		13				
40-59,000	5		7				
> 60,000	4		1		3	2.37	0.54

Note. M = mean; SD = standard deviation; F = frequency

[1]. When cell sizes were less than 10, exact p-values were used.

The majority of the children used in this study come from lower income, working class African Caribbean/American and Latino families. It should be noted that income levels were provided by the families themselves. Consequently there was no way to control for families who might have been either over-estimating or underestimating their incomes. At the time of the testing, all subjects were enrolled in the 5th or 6th grade in New York City public and in some cases parochial schools.

Two types of data were utilized: WISC-III protocols (already collected per admissions requirements of program), and Rorschach protocols, scored on two separate scales.

Procedures

WISC-III

The Wechsler Intelligence Scale for Children-III (WISC-III; Wechsler, 1991) will have already been administered as part of the admissions process. The tests were administered by doctoral candidates in clinical psychology. Because the test is so well known, it will not be presented in any more detail in this section.

Rorschach

The Rorschach was administered by doctoral candidates in clinical psychology who had, at minimum, successfully completed a first year level course in psychodiagnostics. Five testers administered the Rorschachs to the 56 subjects. The administrator to subject match was randomly assigned. All administration of the Rorschachs occurred at the school. All subjects were tested

during a non-academic period, lasting approximately 50 minutes.

The Rorschach was administered with the following instructions: "I am going to show you some cards. I would like you to tell me what they look like, what they could be." After the ten cards have been administered in order, the subject's response will be repeated along with the following inquiry: "What makes it look like ...?" When a response implies an object relation the nature of which was too vague as to score according to MOAS criteria, the prompt is offered, "As if?" (Tuber 1989a). Should a card be refused, the subject was asked on inquiry, "Is there anything else it could be?".

Measures

Rorschach Scales: MOAS and DACOS

Rorschach protocols were scored using the Urist Mutuality of Autonomy scale, or MOAS (Urist, 1977) as modified by Tuber for use with children (Tuber and Coates, 1989); and the Developmental Analysis of the Concept of the Object Scale, or DACOS (Blatt, et al., 1976).

MOAS The MOAS assigns one of seven possible scores to both animate and inanimate movement responses. Urist (1977) conceptualizes the seven points as follows:

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

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

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

4. One figure is a reflection or imprint of another. The relationship between objects here conveys a sense that the definition or stability of an object exists only insofar as it is an extension or reflection of another. Shadows, footprints, etc. would be included here.

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

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

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

control.

Once the data was scored on the MOAS scale, it was broken down into six separate categories in order to be analyzed.

1. Each child's highest (most malevolent) scale score point was noted.

2. Each child's lowest (most benevolent) scale score point was noted.

3. The frequency of the highest scale score point was noted.

4. The frequency of the lowest scale score point was noted.

5. The mean of each child's MOAS responses was noted.

6. The frequency of responses that fell into groupings of the scale score points 1-2, 3-4, and 5-7 was noted accordingly.

7. The frequency of responses for each individual scale level response was noted.

DACOS The DACOS is based on the developmental principles of differentiation, articulation and integration. For the DACOS, all human and quasi human [H and (H)] responses are scored according to their degree of differentiation. In terms of differentiation, responses are classified according to types of figures perceived; whether the figure or subject of the action are quasi-human details (Hd), human details Hd: full quasi human figures (H); and full human figures, H.

1. **Human responses**: To be classified as a human response, the figure must be whole and clearly human. For example: "people" or "women".

2. **Quasi-human responses**: Here the figures are whole but less than human or not definitely specified as human. For example: "witches" or "dwarfs".

3. **Human details**: Here only part of a human figure is specified. For example: "hands

strangling" or "faces staring at each other".

4. **Quasi-human details**: Here only part of a quasi-human figure is specified. For example: "angel's face" or "witch's face".

Responses are also classified as perceptually accurate or inaccurate (F+, F-) as well as to the degree that they are articulated. Articulation refers to the type of attributes ascribed to the figures. They are considered to be either appropriate or inappropriate with respect to perceptual (size, posture, structure, hair or clothing) and functional (sex, age, role, specific identity) aspects. The analyses of such responses are only concerned with articulations that enrich a human or quasi-human response. The degree of integration of the response in scored in three ways : 1) the degree of internality of the motivation of the action (unmotivated, reactive, and intentional), 2) the degree of integration of the object and its action (fused, incongruent, nonspecific, and congruent), and 3) the integration of the interaction with another object (malevolent-benevolent and active-passive, active-reactive and active-active). The analyses can only be applied to figures engaged in human activity.

According to Stricker and Healey (1990), reliabilities on the DACOS have ranged from 75 percent (perceptual articulation) to 96 percent (differentiation). Most reported reliability scores are in the generally acceptable range of mid-eighties to low nineties (Kuhn, 1992).

Once the data was collected and scored on the DACOS, it was broken down into the following five categories in order to be analyzed.

1. The degree of articulation for each child on each protocol was noted. This is the simple enumeration of the total number of types of features articulated. For any single Rorschach response, a total of seven types of features could be articulated. If, for example, a subject gave

four human responses and attributed a total of ten types of attributes to them. his/her highest score for degree of articulation is 2.5.

2. The degree of articulation for good form/human [F+H], good form/humanlike [F+(H)], bad form/human [F-H], and bad form/humanlike [F-(H)] was noted.

3. The ORPLUS score for each child was noted. ORPLUS represents the sum of weighted scores for the degree of differentiation, integration, and articulation of all human or humanlike Rorschach percepts that have good form.

4. The ORMINUS score for each child was noted. The ORMINUS is determined like the ORPLUS score but refers to poor form percepts (Blatt, Brooks et al., 1976).

5. The RORSCORE score for each child was noted. The RORSCORE combines the two into a single score by multiplying ORMINUS by negative one and adding it to ORPLUS (Fritsch and Holmstrom, 1990).

Data analysis

Correlations, t-tests, analysis of variance, and multivariate analysis of variance was applied to a comparison of the two groups as well as a comparison of the object relations scales, as per the hypotheses stated above. All data was analyzed through the use of the SPSS-X statistical programs.

CHAPTER IV

RESULTS

In the first part of this section, findings for each of the instruments used will be reported separately. Any associations between variables tapped by different measures will then be reported.

Rorschach Measures

The total number of Rorschach responses of all types, on all protocols between the two groups did not vary significantly. For the experimental group the mean response rate was 21.89, SD=9.12. The control group had a mean response rate of 23.68, SD=13.36. Although the study had originally intended to use 60 subjects (30 experimental, 30 control), four of the original subjects' protocols could not be used because the administrators did not have sufficient time to conduct an inquiry. An attempt was then made to recruit four new subjects. Unfortunately, similar problems also excluded their protocols from being used in this study. Consequently, a total of 56 subjects were included in this study (28 experimental, 28 control).

Reliability

All protocols were scored on the Mutuality of Autonomy Scale (MOAS); and the Developmental Analysis of the Concept of the Object Scale (DACOS). All 56 protocols were scored independently by the author and two separate raters, one for each scale. Both of the raters were advanced level doctoral candidates in clinical psychology who were blind to the purpose of the study. Also, because the author had worked intimately with all of the subjects used in this

study, upon inclusion of the study all subjects were immediately assigned random identification numbers so as to make their identities unknown to the author during the rating process and all subsequent analyses.

For the DACOS, exact agreements for the different categories was as follows:

TABLE 4A

DACOS Reliability

Differentiation (e.g., quasi-human detail, human detail, full quasi-human, full human)	.86
Articulation (size/structure, clothing/hair, posture, sex, age, role, identity)	.73
Motivation (unmotivated, reactive, intentional)	.78
Object-Action Integration (fusion, incongruent, nonspecific, congruent)	.81
Interaction with Object (active-passive, active-reactive, active-active)	.82
Quality of interaction (malevolent-benevolent)	.85

For the MOAS, exact agreement was achieved on 81 percent of all protocols. Agreement within one point was 87 percent. For all of the scales, differences were conferenced. In all cases, following discussion, agreement was reached.

Developmental Analysis of the Concept of the Object Scale (DACOS)

This study hypothesized that:

1. Children in the High Disparity group will give significantly fewer ORPLUS responses (the capacity for investment in satisfying interpersonal relationships) than children in the Low Disparity group.

2. Children in the High Disparity group will give significantly more ORMINUS responses (the tendency to become invested in unreal relationships) than children in the Low Disparity.

3. Children in the High Disparity group will have significantly lower RORSCORE responses (the combined ORPLUS and ORMINUS scores where overall response productivity is controlled for) than children in the Low Disparity group.

Findings

None of the hypotheses related to the DACOS were confirmed at the $p < .05$ level. The results in terms of each hypothesis were as follows:

Hypothesis #1: Children in the High Disparity group will not differ in any significant way from children in the Low Disparity group in terms of the amount of ORPLUS responses offered.

Before calculating an ORPLUS score, which controls for total response productivity, an average OR+ score was determined. This is simply an indication of the weighted sum for all good form percepts divided by the total number of good form responses. The breakdown of the scores for both groups on this specific variable are presented in table 4B.

Hypothesis #2: Children in the High Disparity group will not give a significantly greater number

of ORMINUS scores than children in the Low Disparity group. See table for 4B.

Hypothesis #3: Children in the High Disparity group will not produce significantly lower RORSCORES than children in the Low Disparity group. A breakdown of these findings is provided in Table 4B.

Table 4B

High Disparity vs. Low Disparity overall scores on the DACOS.

	High Disparity		Low Disparity				
Variables	M	SD	M	SD	df	t-value	p-value
OR+A	9.66	3.79	11.03	3.43	53	1.40	0.17
OR-A	7.18	3.09	7.64	3.11	41	0.49	0.63
OR+	7.01	3.51	7.50	3.35	53	0.53	0.60
OR-	2.92	2.12	2.87	1.51	41	0.90	0.93
ROR	5.20	4.58	4.91	4.78	53	0.23	0.82
TOTAL	60.50	41.07	65.25	31.23	54	0.49	0.63

Note. M=mean; SD=standard deviation.

After calculating the degree of articulation for each child, which also did not produce significant differences between the two groups, an attempt was then made to break down the ORPLUS and ORMINUS scores even further by calculating the degree of articulation for each of the following categories: good form/human [F+H], good form/human-like [F+(H)], bad form/human [F-H], and bad form/human-like [F-(H)]. There were no significant differences between the two groups on any of these measures. These results are summarized in Table 4C.

Table 4C

Articulation Scores of High Disparity vs. Low Disparity groups on the DACOS.

	High Disparity		Low Disparity				
Variables value	M	SD	M	SD	df	t-value	p
NROR	33.37	33.04	27.61	27.19	53	0.71	0.48
DA	1.31	0.65	1.12	0.42	54	0.15	0.88
DAF+H	1.32	0.95	1.58	0.59	49	1.21	0.23
DAF-H	1.40	1.10	1.21	0.75	36	0.60	0.55
DAF+(H)	1.50	0.93	1.15	0.68	42	1.43	0.16
DAF-(H)	1.51	0.73	1.42	0.93	23	0.27	0.79

Note. M=mean; SD=standard deviation.

Mutuality of Autonomy Scale (MOAS)

This study hypothesized that;

1. Children in the High Disparity group would have less adaptive object relational make-up as measured by the MOAS than children in the Low Disparity group.

The MOAS scores were first broken down into the highest score given, the lowest score given and the average of all scorable responses given. It should be noted that, for the purposes of this study, when a score on the MOAS is referred to as the higher score, it refers to a more malevolent score. Because the scale ranges from a scale point of one, the more adaptive score, to seven, the least adaptive score, confusion might arise when discussing the terms "highest" and "lowest". Thus, for the sake of clarity, it is important to note that a "higher" score is a less adaptive score, and vice versa.

Within these three specific analyses, there were no significant differences between the two groups. A breakdown of the findings is summarized in Table 4D.

Table 4D

MOAS summary of scores across groups.

Variables	High Disparity M	SD	Low Disparity M	SD	df	t-value	p-value
Highest	5.04	1.40	4.75	1.80	54	0.66	0.51
Lowest	1.89	1.07	1.71	0.98	54	0.65	0.52
Mean	3.18	0.94	3.07	1.19	54	0.39	0.70
Total	7.57	4.34	7.04	6.14	54	0.38	0.71

Note. M=mean; SD=standard deviation

After this initial analysis did not produce significant results, an attempt was made to expand upon the highest to lowest scores by calculating their frequency. In other words, if, for example, a child produced a high score of six and low score of one, but their protocol had a total of five "six" scores and two "one" scores, just looking at the highest and lowest scores, without also accounting for the frequency of said scores, would miss an important aspect of the child's record. Consequently, an analysis of the frequency of both the highest and lowest scores for each group was conducted. In order to make the analysis statistically feasible, scores were grouped into three categories. The manner in which the categories were grouped was based on the theoretical underpinnings of the scale itself. This point will be further elaborated in the discussion section. Scores that were included into the low category pertained to scores 1-2 (adaptive). The middle category consisted of scores 3-4 (symbiotic/narcissistic), and the high category 5-7 (malevolent).

This analysis did not result in a significant finding. The breakdown of this analysis is presented in Table 4E.

Table 4E

MOAS scores of High Disparity vs. Low Disparity groups using Fischer Exact Tests (FI).

Variables	Experimental Group	Control Group	df	FI	p-value
	F	F			
Highest Score Obtained:					
Low (1-2)	1	5			
Middle (3-4)	9	7			
High (5-7)	18	16	2	2.88	0.24
Lowest Score Obtained:					
Low (1-2)	23	27			
Middle (3-4)	4	0			
High (5-7)	1	1	2	4.26	0.12

Note. F=frequency

Following this analysis, it was determined that an overall grouping of scores, into the same clusters as delineated above, might yield interesting, if not significant results. The distribution of these scores appears in Table 4F. The hypothesis that the children in the High Disparity group would have a less adaptive object relational make-up as determined by the MOAS was partially supported by the data analyses. Both groups produced a proportionally greater number of adaptive level scores when compared to the other categories. In fact, both groups produced an almost identical number of adaptive level scores.

However, when both groups were compared across the three categories, there were

significant differences between the two groups. In this initial comparison, the significance was carried by the middle category. More specifically, the High Disparity group produced a significantly greater number of middle category, or symbiotic, scores than did the Low Disparity group. When this two point category was further broken down, it became evident that the significant difference between the two groups lay in the High Disparity group producing a significantly greater number of scale level 3 responses than the control group. Also, although not clearly significant, the Low Disparity group did demonstrate a strong tendency to produce a greater number of scale level 5,6, and 7 scores when compared to the High Disparity group. See Table 4F.

Table 4F

Grouping of MOAS scores of High Disparity vs. Low Disparity groups.

	High Disparity	Low Disparity			
Variables	F	F	df	chi-square	p-value
Low (1-2)	103	102			
Middle (3-4)	63	43			
High (5-7)	45	60	2	5.84	0.054

*p < .05.

Because the difference between the two groups on the malevolent (5-7) grouping was extremely close to being statistically significant, it was decided that the groups would be compared across each individual scale point level. Within this comparison the High Disparity group produced a significantly greater number of scale level 3 responses than did the Low Disparity

group, almost twice as many. Although this analysis did not produce significant results between the two groups, there did seem to be a tendency for the High Disparity group to produce a greater number of scale level 1 responses and for the Low Disparity group to produce a greater number of scale level 6 responses. These findings are summarized in Table 4G.

Table 4G

Frequency of individual MOAS scale level responses: High Disparity vs. Low Disparity groups.

	High Disparity	Low Disparity			
Variables	F	F	df	chi-square	p-value
One	29	17			
Two	74	85			
Three	37	19			
Four	26	24			
Five	15	18			
Six	26	38			
Seven	04	04	6	12.20	.058

*p < .05.

A discussion of these findings, as it pertains to both the significant and nonsignificant findings will now be presented.

CHAPTER V

DISCUSSION

The initial idea for this study came from the clinical observation that within a specialized school setting for intellectually gifted children, there seemed to be some children who were more well related than others. This observation, in and of itself, is not significant because it stands to reason that within any group of people, there will be those who are stronger than others in various aspects of functioning. However, what did in time arise, was a clearer clinical picture of the children with a significant disparity between their Verbal Scale score to Performance Scale score on the WISC-III.

It became increasingly clear that these children with the significant disparity seemed less able to connect effectively with others. These relative interpersonal lapses occurred both in and outside of the classroom. Also, this relative lack of connectedness was not limited to children their own age but seemed to generalize to adults as well. Having said this, it must also be stated that all of the children who were selected for the program in question, had thrived academically, had strong support systems, and had to impress their interviewers with their interpersonal skills. Thus, it cannot be said in strong enough language that it is not being hypothesized that the children in question are children with pathological, interpersonal deficits, but with relative, and at times, quite subtle weaknesses within their interpersonal spheres.

Because there exists very little research on the object relations of intellectually gifted children in general, and such children of color, specifically, the findings of this investigation will hopefully shed some light on the field of psychology's as well as the field of education's

understanding of this special group of children. More often than not clinical research seems to focus in on groups where the objective presence of marked dysfunctions and/or gross deficits are requirements for an individual's inclusion in a given study. In hindsight, this type of thinking should not have been applicable when conducting an investigation with this population. These children, by anyone's standards, are a testament to mental health, emotional well being, and in some instances, a compelling example of resilience and perseverance in the face of incredible hardship. Unfortunately, some aspects of this investigation fell into the trap of looking for marked deficits when in fact they may not have been present. This point will be further elaborated later in this section.

This study set out: 1) to explore a specific facet of functioning (interpersonal skills) within an extremely under-researched population, that of intellectually gifted children of color; and 2) with a particular focus on the possible links between intellectual functioning, as determined by the WISC-III, and unconscious object representations, as determined by two Rorschach object relations scales. One goal of this investigation was to shed light on a long neglected group, while, at the same time, providing more information on the way in which the instruments used for this study tap similar dynamics as well distinguish themselves from one another when applied to this population.

Kaufman (1994) makes the point that extreme differences of 32 points or more need to be investigated regardless of the subtest scatter. Consequently, even though there existed some inherent methodological problems in this study, it was felt that the extreme nature of many of the significant Verbal to Performance Scale score differences, coupled with the dearth of research concerning this population, did merit that the investigation proceed accordingly (the methodology

concerns will be addressed later in this section). Because Kaufman's point is well taken, any conclusions drawn from the findings of this study must be tempered with the understanding that the basis for the initial distinction between the two groups, may not have been completely sound.

The initial hypotheses posited in this study that specifically pertained to the DACOS, did not result in significant findings. The results of the data analysis of the MOAS partially support the initial hypotheses posited in this investigation. Because the results of this investigation are mixed, it is hoped that a clearer, more detailed understanding of the results, with a specific focus on the significant finding as it relates to the initial hypotheses, will provide valuable information about some of the interpersonal dynamics of this group.

The Findings of the Data Analysis using the DACOS

One of the most interesting and unexpected findings of the initial Blatt, et al., (1976) study, was that patients consistently gave a significantly greater number of human responses at lower developmental levels than did normals on accurately perceived responses and a significantly greater number of more advanced human responses than did normals on inaccurately perceived responses. For the authors, these findings "raised a number of questions about the nature and function of experiences of reality and unreality in normality and pathology" (p.371). They went on to hypothesize that for the psychotic patient, the capacity to perceive reality did not aid them in their capacity to organize their experiences and to function at higher developmental levels. They then went on to state, "...it seems as if establishing contact with reality, at least in a conventional sense, brings with it lower developmental levels of thinking and malevolent content" (p. 371).

I stated in the beginning of this section that the children used for this study were extremely

healthy and not to be thought of as being deficient in some fundamental way. Yet this seems to be the very mistake I committed specifically when using this scale. In hindsight, it seems apparent that I tried to understand the childrens' in question relative interpersonal difficulties through the lens used by researchers when studying clinical populations. For example, although the results of the initial Blatt, et al., (1976) study were relevant for the purposes of this investigation, those same results were too literally applied to the hypotheses of this investigation. Specifically, the finding from the original Blatt, et al, (1976) study that more severely disturbed individuals were prone to give less adaptive object relations responses when faced with real experiences of others should not have been expected to be replicated in this study. Yet, several of the hypotheses put forward in this investigation, which were related to the DACOS, were too strictly tied to the original study. The reverberations of this misstep contribute greatly to the lack of significant findings and the DACOS.

During the initial stages of this study, it was being hypothesized that significantly lower scores on the Performance Scale subtests were an indication of not enough attention drawn outward, coupled with a tendency to draw from predominantly internal, verbal strengths, as evidenced by the exceptional scores attained on the Verbal Scale subtests. This lead to the idea that the children in question were too internally drawn and seemed to have some difficulty either perceiving reality or dealing with reality, or both. Even at this early stage one can already see my being overzealous in attempting to understand the children's behavior through a deficit model. The very fact that I began to think of them as being "too" internally drawn, as well as having "difficulty" in either dealing with or perceiving reality points to a fundamental misconception. It now seems more plausible to think of the children as being "more" rather than "too" internally

drawn. Also, the use of the term "too" connotes a certain sense of permanence. It is as if to say that the children with the significant disparity are always in this state. The notion of permanent as opposed to shifting states, or highly charged moments, as it applies to this investigation, will be further elaborated later in this section.

Considering the lengths that many of these children have had to go to in order to reach their goals, anyone would be hard pressed to prove that there existed a difficulty in either perceiving or dealing well with reality. In fact the opposite seems to be the case. By positing that such a difficulty existed I did a disservice to the children in question. Perhaps more importantly, by making this claim, the philosophical underpinnings of this investigation were, as they pertained to the use of the DACOS, mislaid.

The fact that the findings from the original Blatt study were first made with a very disturbed population should have been better considered before presuming that for the children in this study a relative inability to deal effectively with reality also meant the presence of malevolence, and the predominance of bad objects. In fact, for the children in question such a distinction was clearly not made. In terms of their ORPLUS and ORMINUS scores, both groups produced remarkably similar scores (see Table 4B). ORPLUS is viewed as indicating the capacity for investment in satisfying interpersonal relationships. Whereas, ORPLUS is viewed as an indication of the tendency to become invested in autistic rather than realistic fantasies (Blatt et al, 1976).

The lack of distinction between the two groups was further substantiated by the analysis of the degree of articulation scores (see Table 4C). Once again, when an attempt was made to view the data based on the findings from the original study, not only were there no significant

differences between the two groups, there were almost no discernible differences at all. Consequently, the hypothesis that the children with the significant disparity had a less adaptive, more malevolent experience of the world, as measured by the DACOS, was becoming increasingly untenable.

Prior to this study, much of the work done with the DACOS involved distinguishing between groups with obvious deficits. As previously stated in this section, the children used in this study did not exhibit any clear deficits per se. In fact, many times the differences in terms of their interpersonal functioning, between the two groups of children, could be quite subtle. Consequently, the decision to use the DACOS as a measure of subtle differences between two high functioning groups of children, as opposed to it being applied to a clinical sample, may have not been the best choice.

At the same time, the DACOS was used because of its utility in tapping real and unreal object representational experiences, and perhaps more importantly, because it taps these experiences through the use of some of the very cognitive capacities that are required of one on many of the Performance Scale subtests of the WISC-III. One of the more compelling reasons to use projective tests in general, and the Rorschach specifically, is that it places the onus on the individual to respond to "a field of impressions where amorphousness prevails" (Mayman, 1967, p. 17) by creating order form within. Whereas on many of the Performance Scale subtests, there is little amorphousness and an abundance of concrete tasks that need to be completed in an allotted amount of time if points are to be scored.

Under these constrained circumstances the child is pressed to answer as quickly as possible. When the Rorschach is administered, these children have the opportunity to shore up their relative

weaknesses with their verbal strengths. They have room to create and, in essence, to compensate for areas where they may be lacking. So, although both the DACOS and the Performance Scale subtests of the WISC-III are tapping similar cognitive capacities, they are going about it in very different ways. Unlike the DACOS and several of the Performance Scale subtests on the WISC-III the MOAS' scoring system allows the individual to offer more elaborated responses. Unlike the DACOS scale, the use of the MOAS did produce significant results.

The Findings of the Data Analysis using the MOAS

At the time when different object relations measures were being considered for use in this study, the MOAS was thought to be a sound counterweight to the cognitive/perceptual emphasis that the DACOS uses to measure an individual's object representational world. Also, and perhaps more importantly, the MOAS did not have some of the limitations of the DACOS when used with child populations. In order for a Rorschach response to be scored on the DACOS, a human or human-like form must be perceived and articulated. Any response that does not include such a factor could not be scorable on the DACOS. This limitation is not present in the MOAS. In order for a response to be scored on the MOAS, a relationship between any two percepts needs to be perceived and articulated. The response is not limited to a human responses, but can include any animate or inanimate objects, so long as they are interacting in some way. As previously mentioned, this distinction can be very useful when testing children. At the same time, because very little research has been conducted of the object relations of intellectually gifted children, it was felt that the combined use of the two scales might produce, if not significant, then at the very least, interesting results.

The results of the data analysis made it increasingly clear that neither group had a

predominant experience of the world as being dangerous, overwhelmingly destructive, or psychotically distorted as measured by the two scales. In fact, the opposite was the case. When scored on the MOAS both the High Disparity and Low Disparity groups had a preponderance of adaptive scores. The High Disparity group had 79% of their scores in the benign range (scores 1-4). Whereas the Low Disparity group had 70% of their scores in this same range. These findings both affirm the content validity of the scale as well as the overall health of the children in both groups. Also, these findings are in line with Tuber's (1989) finding that in a nonclinical sample of children, modal responses were from the benign end of the scale.

In hindsight, it makes sense that both groups would come across as being well adaptive as evidenced by the higher number of benign scores. To think that children who have persevered and thrived, sometimes in not the best of circumstances, would have a preponderance of malevolent experiences of the world was unfounded and counter-intuitive. However, the original clinical observation that the two groups of children did seem qualitatively different was supported by the results of the data analysis. It is now time to try to understand the results as they pertain to the original observation and subsequent hypotheses.

The Significant Finding

Children in the High Disparity group had a significantly greater number of middle category responses, scale points 3 and 4, when both groups' MOAS scores where compared across all three categories (see Table 4F). It was then further determined that the overall effect of the significance between the two groups in the middle category was carried by the High Disparity group producing a greater number of scale level 3 responses than the Low Disparity group. Also the Low Disparity group had a tendency to produce a greater number of scale level 6 responses when compared to

the High Disparity group. Interestingly, although both groups appeared to be equal in terms of the frequency of scale level 1 and 2 responses when grouped, it turned out that the High Disparity group had a tendency to produce a greater number of scale level 1 responses when compared to the Low Disparity group when the frequency of responses were looked at individually. Although only the difference between the two groups on the number of scale level 3 responses were found to be significant at the .05 level, the trends both groups exhibited on scale level points 1 and 6 will be discussed as they pertain to the significant finding.

In order to better understand the meaning of these findings, a brief exploration of Tuber's (1992) application of the MOAS with a normative sample will be offered. In a study of 40 children, ages ranging from 6-13, Tuber (1989b) found that most of children had a wide range of MOAS scores. 75% of the children had a 1 or 2 level score as their most adaptive response. It was also noted that 60% of the children had a scale score of 5 or 6 as their most maladaptive response. A balance of adaptive to maladaptive scores was also noted as being crucial in depicting relative health. Although these findings were further supported by the results of this investigation, it should be noted that the distribution of scores was not equally balanced between the two groups.

Ryan, Avery and Grolnick (1985) also used the MOAS with a normative sample of 127 fourth to sixth grade children. In this study less adaptive MOAS scores were positively correlated with teacher ratings of low self-esteem, classroom attention, and cooperative work with other children. In both studies, MOAS scores were not related to IQ scores, or achievement test scores, but they were related to higher grades.

Not unlike the results from the Ryan, Avery, Grolnick (1985) study, in this investigation,

teacher observations of the children's ability to effectively interact with their peers was reflected in the subjects' MOAS scores. The shared experience that many of the children with the significant difference between their Performance and Verbal Scale scores, were not effectively connecting with either their peers or teachers was supported by the distinction between the two groups on the MOAS, particularly on the disproportionate number of level 3 scale point responses.

Although both of these studies help shed some light on the significance of the findings of this investigation, Goddard and Tuber's (1989) MOAS study of 19 boys diagnosed with separation anxiety disorder (SAD), and a matched control group of 14 boys, speaks most directly to the results of this investigation, particularly as they pertain to the scale level 3 response. In the SAD study, children in the experimental group had a more disturbed mean MOAS score than the control group. Also, the SAD group had four times as many scale point 3 responses than did the control group. Although, in this present investigation the difference between the two groups was not as wide, with the experimental group producing almost twice as many scale level 3 responses than the control group, it was still a significant difference.

Because the scale level 3 response features figures which are leaning on, or clinging to another figure for support, which are two of the hallmarks of separation issues, the results of the SAD study lend further support to the content validity of the overall measure in general and this scale point in particular. The results of the SAD study also provide an important link between inner representations and manifest behavior. Goddard and Tuber go on to write:

> "The far greater number of dependent or clinging object representation scores in the protocols of the separation anxious boys are likewise viewed as a striking intrapsychic correlate to their behavioral need to rely on familiar others to reduce their anxiety. We speculate that these children have not fully developed an intrapsychic sense of themselves

as stable and differentiated. Rather, the intense presence of dependent and symbiotically merged projective object imagery in these children's Rorschachs suggests the possibility that their sense of self and self-images are enmeshed and intertwined with their objects" (p.249)

Although we must be careful not to think of the children with the significant disparity as being pathological, the significant difference between the two groups does lend support to the initial observation. What makes this investigation's findings different from the Goddard and Tuber (1992) findings is twofold. The SAD study was comparing a pathological group with a normal group, whereas in this investigation both groups are made up of normal, healthy children. Besides the significant difference between the two groups in the SAD study in the number of produced scale level 3 responses, the SAD group also produced a significantly lower number of level 1 responses than did the control group. When both groups in this investigation were compared in terms of their adaptive level responses, scale scores of 1 and 2, both groups produced an almost identical number of responses, 103 for the experimental group, 102 for the control group. However, when the frequency of responses for these scale points was viewed individually, the High Disparity group produced a greater number of scale level 1 responses than did the Low Disparity group. Consequently, although the results of the SAD study do shed some light on the findings of this study, there also exist some fundamental differences between the two groups being studied.

Having said this, there remains an important connection between this investigation and the SAD study. Of all the scale points in the MOAS, the scale level scores of 3 and 4 are perhaps the most directly and specifically linked to classical psychoanalytic theory. When Urist (1977) first developed the MOAS, he clearly posited that the scale level 3 response addressed issues of merger/symbiosis, while the scale level 4 response addressed object relational issues of

reflection/narcissism. These distinctions was further supported by Tuber's work with the MOAS.

Although Urist's (1977) original claim that the MOAS was capturing a developmental continuum of object representations, which was largely influenced by the work of Mahler, Pine and Bergman (1975), has not been supported, the impact of these theorists' ideas continue to have a presence in the understanding of the scale. For the purposes of this investigation, a closer look at the theoretical underpinnings of the level 3 scale point will be offered. It is hoped that a clearer understanding of the scale level 3 response will also illuminate the differences between the two groups on the scale level 1 and 6 responses, respectively.

In their seminal work The Psychological Birth of the Human Infant, Symbiosis and Individuation Mahler, Pine and Bergman (1975) lay out a developmental continuum. The over-arching goal of this view of development is the achievement of separation-individuation. They write:

> "We refer to the psychological birth of the individual as the **separation-individuation process**: the establishment of a sense of separateness from, and relation to, a world of reality, particularly with regard to the experience of **one's own body** and to the principal representative of the world as the infant experiences it, the **primary love object**." (p.3)

According to these authors, the normal separation-individuation process is preceded by a developmentally normal symbiotic period, which does not refer to a behavioral condition but an intrapsychic state. It is posited that this stage of development refers to a feature of primitive cognitive-affective life wherein the differentiation between self and mother has not taken place.

In extremely rare cases the infant's physical development, as well as increases in other autonomous ego functions, when coupled with a concomitant lag in emotional readiness for functioning separately from the mother, can give rise to intense panic (Mahler, Pine, Bergman, 1975). Mahler (1960) made the claim that this kind of panic can cause fragmentation and thus

result in the clinical picture of symbiotic infantile psychosis.

Obviously, the children used in this investigation do not fall into this category. It is, however, helpful to take apart the theoretical underpinnings of the MOAS, particularly as they relate to the scale level 3 response, in order to better understand the distinction between the two groups. During the normal symbiotic phase the cathexes of mother is the principal psychological achievement (Mahler, Pine and Bergman, 1975). This phase is marked by the infant's increased perceptual and affective investment in stimuli that an adult observer can recognize as coming from the world outside, but that the infant does not seemingly recognize as having a clearly external origin (Mahler, Pine and Bergman, 1975). The authors go on to postulate that the experience of inside and outside is yet vague for the infant, and that the most highly cathected object, the mother, is still, in their words, a part object.

One can begin to see in the wording that is used when trying to capture this phase of development the theoretical roots of the initial observation of this study. The importance of taking the developmental step that allows the individual to accurately distinguish internal from external experiences is a thread that runs through this study. This understanding of development need not be pathology based. Rather, it can be interpreted more descriptively, and in so doing, it can better capture some of the subtleties of the interpersonal worlds of the children in question. Within this theory's framework, the successful completion of the symbiotic phase of development is dependent, in part, on the dynamic interplay between maternal nurturance and the infant's perceptual/emotional development. The maturational development of the perceptual-conscious system has been termed by Mahler, Pine and Bergman (1975), as the "hatching process". This process enables the infant to have a more permanently alert sensorium whenever he/she is awake.

In terms of this investigation, it was the absence of a permanent state of alert sensorium in the children with the significant discrepancy that first drew the attention of this author.

The "hatching process" is specifically concerned with the infant's attentional capacities. During the first months of symbiosis the infant's attention is in large part inwardly directed. However, within healthy development, the infant's attention gradually expands through the coming into being of outwardly directed perceptual activity during the child's increasing periods of wakefulness (Mahler, Pine and Bergman (1975). It was noted by these authors that at some point during the differentiation sub-phase a certain new look of alertness, persistence and goal-directedness was being recognized. This observable change was thought to be the behavioral manifestation of "hatching" (Mahler, Pine, and Bergman 1975). They go on to write:

> "This new gestalt was unmistakable to the members of our staff...The child no longer seems to drift in and out of alertness, but has more permanently alert sensorium whenever he is awake" (p. 54)

The implications that this observation of infants in the state of normal symbiotic development has for this study are significant. Of note is the fact that although the children do not manifestly exhibit the type of interpersonal interaction that is centered on clingingness, or an overemphasized need to lean on others, which are the inclusionary criteria for the scale level 3 response, there are, what appear to be, the derivatives of this period of development. Specifically, the relative difficulties within the perceptual/conscious system are more readily observable for the children with the significant discrepancy. In essence, this description of the "hatched" infant as manifesting a look of "alertness, persistence and goal directedness" resonates with the initial clinical observation of the children with the significant Verbal Scale score to Performance Scale score difference who did not always have this look. What was apparently most striking to Mahler,

et al, was that the infant no longer drifted in and out of the state of alertness, but that a new permanence had emerged.

Interestingly, it was the shift to a state of permanent alertness that first drew attention to this achievement as being an important milestone in terms of personality development, whereas in this investigation it was the lack of permanence of the state of alertness in the children in question that was initially noted by various staff members. Where the majority of the children without the significant disparity seemed to be able to continually and evenly attend to a variety of outside stimuli, the other children seemed to have relative difficulty maintaining this state over an extended period of time.

By pulling together the initial observation with the results from the MOAS, one can begin to make the argument that the children who were labelled as being "out of it" were in fact oscillating between a state of being "hatched" and not being "hatched". Very often these children's sense of alertness, persistence, and goal-directedness as it pertained to the outside world seemed lacking. It is important to emphasize that the children who seemed "out of it" in class had plenty of moments where they were well related and appropriately responsive to external stimuli. In this sense the term "out of it" is, perhaps, best capturing the relative lack of permanence when attending to the outside world. This is very different than saying that the children in question are incapable of effectively attending to external stimuli.

It is also of note that the children with the significant disparity seemed to have the greatest difficulty interacting with others when placed in group settings. More often than not, they seemed well related and connected to others in individual settings. This was apparent in both their teacher and peer interactions. This then raises the question as to whether the intensity of being in a group

setting contributed to the children in question momentarily regressing to a less adaptive object relational state. This less static view of regression is different than the one espoused by traditional psychoanalytic developmental theory. It is, however, a distinction that carries great importance for the interpretation of this investigation's findings, and as such, will now be more closely examined.

According to the developmental continuum espoused by many classical psychoanalytic thinkers, a developmental arrest by definition implies that all subsequent phases of development will be so tainted. In this view of thinking a psychologically and emotionally healthy adult has successfully navigated through numerous phases of development. Whether one looks at Freud's, Klein's or Mahler's theoretical work, this notion of arrested development is a constant theme. Following this line of thinking, it can be argued that the sporadic, and relatively ineffective interpersonal behavior of the children in the experimental group is, in essence, an outward manifestation of an arrest of the "hatching" process of symbiotic development. This would not, however, be an accurate assessment of this author's view on this topic.

It seems more in line with the real experiences of these children, both in and outside of the classroom, to make the claim that under moments of stress the children with the significant disparity, who are for all intents and purposes extremely healthy individuals, regress to a less adaptive level of object relational functioning. It is not being argued that these children are frozen at a symbiotic level of development, and because of this there growth has been stifled. On the contrary, although the children's development has proceeded well, they do appear to be susceptible to returning to an experience of the world that holds out the false promise of safety, familiarity and comfort. Within this view, it is the experience of merger, of an illusory oneness that beckons

them. These momentary slips are, in essence, the chinks in these children's armor. It is being argued that this retreat into a symbiotic level of development occurs in the face of perceived threat and discomfort. Consequently, one might also posit that this retreat has an affect that generalizes to other object representational experiences. Specifically, if an individual carries a view of the world that is occluded by the shadow of enmeshment, his/her ability to fully experience the totality of others becomes impinged.

This particular dynamic was apparently captured when the frequency of responses for both groups were compared across the malevolent scale grouping (responses 5-7). The Low Disparity group had a tendency to produce a greater number of scale level 6 responses than did the High Disparity group. At first glance the conclusion might be drawn that the High Disparity was healthier in the sense that they did not have as many malevolent responses. Such a view would, however, be ignoring the fact that both groups produced a disproportionately greater number of benign level responses. Consequently, it can be determined that both groups posses a relatively healthy object representational experience of the world. What then is the significance of the Low Disparity group exhibiting a tendency to produce a greater number of scale level 6 responses? As Tuber (1989b) noted, a wide distribution of MOAS scores is indicative of relative health. In his study, 60% of the children in the normative sample had a scale score of 5 or 6 as their most maladaptive response.

In this study the fact that the children in the Low Disparity group produced a significantly greater number of scale level 6 responses is being understood as having more access to a variety of experiences of others that is not as clearly shared as the children in the High Disparity group. A full object representational experience must be able to incorporate negative, positive and neutral

experiences of others. Such a view would be accurately capturing an objective reality. The ability to posses such an all encompassing view of others would, by definition, allow an individual to more freely experience others. Consequently, that individual's ability to successfully relate with others would be strengthened. It is this very totality of experience of others that seems to be relatively weaker for the children in the High Disparity group. Where the children in the Low Disparity group can tolerate and incorporate negative experiences of others, the children in the High Disparity group seem to shift to a more symbiotic state when faced with the negative experiences and the subsequent difficult emotions they can at times produce.

In Goddard and Tuber's (1992) SAD study the children in the experimental group produced both a significantly greater number of scale level 3 responses as well as a significantly lower number of scale level 1 responses when compared to the control group of normals. This begs the question as to why a similar difference between the two groups used in this study did not occur. It is being argued that the answer lies in the children's intellectual giftedness. Because the children in the SAD group, by definition, possessed a less adaptive object representational experience of the world, their access to compensatory responses when faced with stress inducing situations was limited. On the other hand, the children in the High Disparity group seem to have the capacity to harness their impressive intellectual skills in a defensive attempt to compensate for their areas of relative weakness. This compensatory mechanism seems to be represented by the tendency to produce a greater number of scale level 1 responses when compared to the Low Disparity group.

Where the children in the Low Disparity group, who are equally as intellectually gifted, can scan the continuum of object relational experiences, the children in the High Disparity group collapse into a symbiotic experience of others that is limited and less reality based. Apparently,

when the children in the High Disparity group are faced with unpleasant stimuli they tend to retreat to an enmeshed experiences of others. At the same time, their response to this retreat has not been completely passive. On the contrary, it seems that the children have attempted to address this inability to tolerate negative experiences into an active attempt to fully capture others in more harmonious, mutually autonomous light. It is being argued that this object relational maneuvering occurs through the children in question's ability to perceive positive experiences of others and to build on them so as to combat the threat of more negative experiences coming to light. This maneuvering does leave them at a disadvantage in so much as they are not fully experiencing the wide ranging meaning of what it is to be human.

This thinking is in line with the staff's shared view of the children in the High Disparity group as not fully getting it, at least in an interpersonal sense. It was noted by several members of the staff that there was something missing in these children's view of the world. In fact it was not uncommon to hear teachers refer to the children as not being fully tied to reality, or as having a far away quality about them. Although these observations were noted as being relative to the rest of the program's, there were enough comments of this nature to have influenced this author's understanding of the results of this investigation. Also, the greater number of scale level 1 responses produced by the High Disparity group is in line with the experience of the children in question at times being right on target with many observations. It is also noteworthy that, more often than not, the other children in the class had a difficult time understanding the meaning of some of these observations because they lacked a certain wholeness. It was almost as if the children in the High Disparity group could, on a visceral level, pick up on a given dynamic, but in the process of reconstituting it into a more acceptable form they lost the other children. Their

relative propensity to turn away from more negative, malevolent experiences limited their abilities to effectively share their experiences with others.

This author's challenge of the traditional psychoanalytic conception of child development is not new or original. In fact, there is an ever-growing body of research that questions many of the fundamental tenets of psychoanalytic developmental theory. For example, as Pine (1985) asks, how is it that an individual whose development is thought to be arrested at the anal phase of development can exhibit features that are developmentally more advanced? Also, for example, how is it that a child who is in a given phase of development can exhibit behavior that is clearly not of that phase?

In Developmental Theory and Clinical Process Pine (1985) attempts to respond to these critiques by responding with a view which he feels remains true to the basic principles of psychoanalytic theory. A growing body of developmental researchers (Stone, Smith and Murphy 1973; Stern 1985) have presented a view of the infant as being much more perceptually, cognitively, and relationally competent than had been previously thought. Also, it is now widely believed that these competencies are present from the earliest days of life (Pine, 1985). These findings strongly challenge the notion of a state of undifferentiation and the subsequently held ideas about other phases of development. Consequently, these findings have forced many more traditional psychoanalytic theorists to revise their theories.

Pine (1985) holds that although these findings throw some doubt on the certainty with which the notion of phases of development has been held, the over-arching concepts themselves need not be completely abandoned. He argues that because the phenomena relevant to the psychosexual and object relational phase concepts are momentary in nature, there remain

numerous other times in a given day where other competencies can be found. Pine is arguing that both views can co-exist. In this view, the way in which we think of phases of development, with all of the implied rigid connotations, is being replaced by his notion of "moments". He writes:

> "...the child can be in a great many so-called phases simultaneously because the phase concept does not speak to the totality of his experience at any one age - even though the concept is used carelessly as though it does just that. Rather, I believe, the phase concept is more appropriately used to refer to a period of peak intensity and peak developmental significance of certain (whatever) phenomena, without prejudgment of their duration. If the phase concept refers to moments, albeit significant moments, of the person's experience, then there is room for many such moments in the day and therefore for the coexistence in time of many so-called phases." (pp. 39-40)

When applying this view of thinking to what had previously been termed the normal symbiotic phase, Pine (1985) makes the point that a child in this phase is not a period of "all symbiosis" for the child. In this instance the concept of normal symbiosis can be meaningfully applied to high-intensity, affectively significant moments of the infant's day that occur during this period of development. Thus, the argument is made that the symbiotic phase is best understood in terms of supercharged formative moments rather than in terms of any single totality of experience.

Under certain situations, the children in the experimental group seem to have a tendency to revert to a mode of functioning that although it serves the purpose of relieving their anxiety by turning away from external stimuli to a more familiar, merged experience of the world, also limits their ability to connect with others. Usually this evokes a distancing reaction from their peers and teachers. This in turn, inadvertently reinforces their idea that they are not well understood by others.

The mechanisms for how this occurs are undoubtedly multiply determined, and as such, are manifested across several modalities. From an interpersonal perspective the children in

question have a different feel to them. This is partly due to their relative inability to consistently attend to an another. The disruptive nature of this presentation makes it difficult for others to feel that they have been heard and taken in by these individuals. The experience of being misunderstood by others can have many repercussions. In our culture, academic achievement is often invariably tied to social acceptability. For many of these children the feeling of being left out can have serious, negative implications.

It is also important to note the effect this experience of the world has had on their cognitive functioning. For all of the children in the experimental group, there exists a gross imbalance between the cognitive functions being measured by the WISC-III. The argument could be made that perceptual/visual difficulties preceded and, in essence, contributed to the lack of awareness between the external and internal stimuli that is one of the hallmarks of the symbiotic level of development. Any attempt to posit which state came first would undoubtedly have great difficulty in proving its point. For the purposes of this investigation, it is safest to say that regardless of which state proceeded the other, if indeed one did proceed the other, the results point to a relative disturbance of functioning across several modalities.

Up to this point, this author has argued that the stress of, for example, being in a stimulating group setting can seemingly produce in these children with the significant discrepancy a less adaptive mode of interpersonal functioning. In this view, it is argued that stress and the resulting anxiety produce a regression of sorts. Consequently, within this modality, the interpersonal modality, a relative weakness is noted. How then is it that when taking the WISC-III Performance Scale subtests, this distinction between the two groups occurs. Can it also be stress related?

One of the features that most distinguishes many of the Performance Scale subtests of the WISC-III from the Verbal subtests specifically, and many other psychological tests, i.e. the Rorschach and the Thematic Apperception Test, generally, is the time requirement. Not only is one expected to effectively respond to the given stimulus itself, one must also do so within a given time frame. For the children with the significant discrepancy this poses a dilemma.

If, it is has been argued in this section, that the children in question have a tendency to oscillate between being "hatched" and not being fully "hatched", then the Performance Scale subtests can be viewed as being anxiety producing. "Hatching" as defined by Mahler, Pine and Bergman (1975) refers specifically to the maturational development of the infant's perceptual-conscious system. Many of the Performance Scale subtests, specifically the times subtests, tap the child's visual motor capacities. If there does exist a relative weakness within this cognitive area, then the press of completing a given task within a certain time frame is, in essence, accentuating a pre-existing weakness. If one works backwards and begins to untangle the different ways in which a given dynamic such as symbiosis can manifest itself, it is not surprising to discover that its presence cuts across many levels of development and subsequent functioning.

Limitations of the Study

Part of the agreement in being allowed to conduct this investigation at the chosen sight, concerned the extent to which the study would intrude upon the daily workings of the organization. It was agreed upon that the children who were to be included in the study would in no way have their participation impinge upon their academic studies. Consequently, certain time constraints were placed on the author during the data collection phase of the study. All in all, this aspect of the agreement with the organization did not prove to be overly problematic. What did prove

to be problematic was the limited access this author had to the results of each child's WISC-III testing. In essence, this author was allowed to peruse the records, but obtaining greater access to the results, beyond the two scale subtest scores as well as the full scale score, would have meant using a staff member's time to assist in meeting the needs of the study. Such a use of staff time, would not have been acceptable. Consequently, the initial hypothesis was based on the three aforementioned scores, and not any other subtest scatter information. As explored in Chapter II, such a limitation automatically put the investigation on uneasy footing.

Because subtest scatter cannot be discerned from the three main scores, the study thus proceeded despite the claims put forth by researches such as Kaufman (1994) who warn against interpreting large Verbal Scale score to Performance Scale score discrepancies without first ruling out other factors such as the configuration of a given child's subtest scatter. Because certain subtests of both the Performance and Verbal Scales tap similar skills, as well as tap other cognitive capacities that are not specifically verbal or performance laden, by not accounting for the subtest scatter on a given protocol, any interpretation as to the relationship between these scales must be so tempered.

Future Considerations

Although it is a topic that is not well researched in the literature, the idea that the Performance Scale subtests can tap an individual's ability to effectively deal with the external environment seems to be supported by the results of this investigation. That it is not to say that this can be the only cause for such a disparity, but that it does neatly coincide with the initial observation that the children with the significant disparity were not as effective as their peers in engaging others.

Future research might further tease apart this apparent phenomena, in the hopes of better understanding the relationship between cognitive styles and interpersonal styles. Any such research would be better served by not repeating the mistakes made in the process of conducting this investigation. Specifically, the unavailability of the full WISC-III protocols limited the range of the initial hypotheses and the breadth of the findings. Access to the full protocols would have more clearly delineated the subtle differences between these two groups. Despite these limitations, it is the hope of this author that the results of this study will contribute to the field's understanding of how interpersonal functioning and cognitive styles are inextricably tied to one another, as well as spark interest in further such research.

CHAPTER IV

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