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AUTOBIOGRAPHICAL MEMORY ASSESSMENT
OF OBJECT RELATIONS

by

EILEEN F. BERNAT

A Dissertation Submitted to the Faculty of the Graduate
School of Loyola University of Chicago in Partial
Fulfillment of the Requirements for the Degree of
Doctor of Philosophy

December

1989

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VITA

The author, Eileen Frances Bernat, is the daughter of Barney Joseph Bernat and Evelyn (Nault) Bernat. She was born April 9, 1959, in Dayton, Ohio.

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CHAPTER I

INTRODUCTION

Psychologists have long struggled with the question of how to assess the personality structures of their clients, as a first step toward helping those clients relieve their distress and lead healthier lives. The examination of individuals' capacities to form relationships has been of special interest, in terms of both their current levels of social functioning and the childhood influences upon their personality structures. Freud was the first to recognize the importance of significant figures in a child's life. It has been the efforts of object relations theorists, however, which have provided a framework for understanding how children's perceptions of themselves and others within the social environment lay the groundwork for those children's abilities to relate to others later in their lives.

With the development of various theories of object relations has come an increased interest in the accurate assessment of individuals' representations of their social environment. Researchers, primarily led by Mayman at the University of Michigan and Blatt at Yale

University, have attempted to construct and validate object relations scoring systems based on the Rorschach Test, dreams, descriptions of significant figures, and autobiographical memories. Studies using the latter medium have generally focused on early childhood memories.

The drive to produce useful measures of object relations has resulted in two promising Rorschach instruments (Blatt, Brenneis, Schimek, & Glick, 1976; Urist, 1977), one instrument developed from dream data which appears to have some utility for early memory data as well (Krohn & Mayman, 1974), a self-report measure based on individuals' views of their own social interactions (Bell, 1988), and two measures designed for use with early memories (Ryan, 1973; Last, 1983). Most of these measures are based on the idea that individuals will project onto an ambiguous stimulus the characteristic structures of their self- and object-representations. Some, including the self-report measure of Bell, are more objective ratings of social behaviors and individuals' conscious perceptions of themselves in interactions with others.

While several of the recently developed object relations measures appear promising, the administrative ease and rich historical background of early childhood and other autobiographical memories argue for research to

improve already existing object relations scoring systems and to develop new ones. Early memories have been discussed by Freudians, Adlerians, and ego psychologists as useful reflections of the individual's personality. Studies have established links between autobiographical memories and personality traits and have discovered means of using those memories to differentiate between potential diagnoses. A few systematic methods have been developed, but only two profess to measure the construct of object relations. Neither has been adequately validated.

The present study is an attempt to provide support for the validity of one of these systems for scoring early memories for object relations, the Level of Object Relations scale of the Comprehensive Early Memory Scoring System (CEMSS; Last, 1983). Subjects were asked to provide written descriptions of single events remembered from three time periods: early childhood, late childhood, and adolescence. Each memory was scored using the CEMSS Object Relations measure. The subjects also completed a criterion instrument, the Bell Object Relations Inventory (BORI; Bell, 1988), a true-false self-report questionnaire which provides scores on five scales: Alienation, Insecure Attachment, Egocentricity, Social Incompetence, and the total number of items endorsed in a pathological direction. It was expected that scores from

the CEMSS Object Relations scale would correlate significantly and negatively with all five scales of the BORI. In addition, it was anticipated that the CEMSS OR scores from each time period would each significantly and negatively correlate with the BORI scales but that the scores from early childhood memories would provide the strongest correlations, since both theory and previous studies suggest that early childhood memories are the most likely autobiographical memories to provide significant information.

CHAPTER II

REVIEW OF RELATED LITERATURE

The purpose of the modern science of psychology has been, from the start, to examine human behavior in a systematic fashion and to develop a comprehensive understanding of how human beings function within the world. Early psychoanalytic theorists, led by Freud, emphasized the importance of innate sexual and aggressive impulses and drives. In addition, events within the first six years of life were seen as determining the later personality. The child's interactions with his or her parents were considered particularly important because of their influence on biologically-based internal drives (Blatt & Lerner, 1983a).

As the field of psychoanalysis developed, some theorists became dissatisfied with the Freudian emphasis on drive theory and changed their focus to the child's experience of relationships. As a first step in that process, described in Lerner and Lerner (1985), analysts attempted to integrate drive theory with the newer Piagetian findings. Greenspan's (1979) "developmental-structuralist" model was particularly

concerned with describing how internal drives and developmental changes in the child's cognitive structure promoted adaptation and growth in the child. It was recognized that the child's increasing capacity for psychological representation profoundly influences his or her perception of the world.

In Piaget's theory, the child is biologically programmed to develop cognitively through interacting with the environment (Piaget, 1952). While Piaget tends to stress the importance of the child's interactions with inanimate objects, object relations theorists have focused on the child's social environment and particularly on the child's interactions with significant caretakers.

According to object relations theorists (Jacobson, 1964; Mahler, Pine, & Bergman, 1975; Winnicott, 1958), infants initially experience the universe as undifferentiated, as a diffuse whole. They lack an awareness of any separation between themselves and the external environment or among different parts of the environment. They are aware of the emotions of pleasure and frustration but have no concept of a need-satisfying object. Later, as they become more conscious of internal bodily sensations and of how the external environment acts to gratify their needs, they are able to form fleeting images of themselves and other objects but are unable

to integrate the images into representations. Gradually, similar images are connected in the infant mind, and a sense of "self", as opposed to "other", appears. At first these representations are poorly differentiated and easily lost when the child experiences various emotions, but they eventually become consistent, well-differentiated constructions which largely reflect external reality. Although changes in object representations occur as persons continue to interact with their social environment, basic conceptions of the world are thought to be formed early in life and tend to resist the impact of later experiences. Thus, persons develop individual identities and expectations about how they will act upon the world and how others will respond to them. Healthy self- and other-representations are strong enough to withstand separations from others, threats to self-esteem, and emotional confusion (Sandler & Rosenblatt, 1962).

The child's early experiences in life are seen to be the determinants of the child's ability to form appropriate representations of self and others and engage in healthy relationships. The child must experience the world as consistent and nurturing in order to feel himself or herself to be worthy of love and capable of giving it. The child incorporates a sense of self that is

consonant with how he or she is perceived and treated by significant others. When an inconsistent message is conveyed, the child is unable to form a coherent sense of self or others. When a negative, consistent communication is received from significant others, the child must form defenses against the consciousness of his or her damaged sense of self and against the threat of revealing himself or herself too completely to another person.

The failure to construct stable, differentiated representations is thus seen in object relations theory to be the cause of severe relational difficulties. A mature relationship can arise only if persons know who and what they are and can appropriately perceive others as they are.

Assessment of Object Relations

With the development of theories about the child's formation of object representations came a need to verify the theories with empirical research. This requires, of course, that reliable and valid measures of object relations be developed. Many researchers have sought information about individuals' representational worlds through traditional methods, e.g., the Rorschach Test, dreams, and early memories. Underlying this focus has been the assumption that when individuals are presented with an

ambiguous stimulus, they will project the characteristics of their representational experiences upon the stimulus. In general, these researchers have tended to pursue either the structural dimensions of subjects' representational worlds or the thematic elements present within this form of personality organization. On the other hand, a few researchers have attempted to assess the quality of object relations through more direct methods. This has generally taken the form of inviting persons to describe their experiences of relationships and how they interact within those relationships (Bellak, Hurvich, & Gediman, 1973). Some researchers have then used these descriptions to construct self-report questionnaires within which individuals can indicate their interrelational functioning (Bell, Billington, & Becker, 1986). Whatever the approach, validation of these methods has been difficult, given the lack of previously developed measures of object relations and the relative recency of the construct. Some researchers have chosen to compare their newly developed methods with more established measures of psychopathology, others have sought to demonstrate that their methods could be utilized to accurately make diagnostic distinctions, while still others have compared several recently developed methods, reasoning that the demonstration of a relationship among

measures utilizing different projective material as well as behavioral ratings would bring credence to the construct of object relations itself and support the premise that that construct can indeed be validated empirically. These efforts have resulted in mixed success.

For many years researchers had been studying the relationship between individuals' abilities to form meaningful, healthy relationships and the frequency and quality of human responses on the Rorschach Inkblot Test (Blatt & Lerner, 1983a). Human responses had been linked to capacity for empathy, social interests, the ability to invest in social relationships, and lack of psychopathology. However, the studies that were conducted from the 1940's to the 1960's lacked a theoretical framework that later object relations theorists supplied.

In the early 1960's, Mayman, who was to become the leader of a major center for research into object representations based at the University of Michigan, began to argue that the manifest content of dreams and early memories could provide information about personality structure, in contrast to earlier Freudian beliefs that manifest content simply obscured the more important latent material. Mayman operated out of an ego psychological framework and saw dreams, early memories, and other material as opportunities to understand how the ego

constructs and maintains psychological defenses. In his view, the ego functioned to select dreams and memories that would support already-existing views of self and others (Mayman, 1968). Mayman therefore focussed on methods of extracting themes related to self- and object-representations. In 1967, Mayman reported that relatively inexperienced judges were able to correctly rate patients' psychopathology on the basis of object representations taken from Rorschach content data. In 1972, Mayman and Ryan (cited in Blatt & Lerner, 1983a) developed a scale to assess the quality of object relations in early memory themes. The scale focused on the degree of the self's isolation or interactiveness and the types of relationships found in the memories. Ryan's study (cited in Blatt & Lerner, 1983a) used the scale to demonstrate that higher levels of object representation were associated with the ability to enter a psychotherapeutic relationship.

In 1974, Krohn and Mayman published a study that sought to demonstrate that object representation was a measurable construct and was nonsynonymous with level of psychopathology. The authors had developed the Object Representation Scale for Dreams using an earlier impressionistic survey of dreams, their experience with the Mayman and Ryan early memory scale mentioned above, and

their knowledge of object relations literature. Their scale consists of global descriptions of different levels of object relations, each of which is assigned a scale point. Krohn and Mayman's scale was designed for use with dreams but can be applied to other projective material.

In an attempt to show that object relations can be measured, the authors asked pairs of skilled clinical judges to apply the Object Representation Scale for Dreams to a series of dreams, an early memory, and Rorschach data collected from each subject and obtained the ratings of the patients' therapists and therapists' supervisors on the same scale, based on their knowledge of their patients. In addition, the therapists and supervisors rated their patients using the Luborsky Health-Sickness Rating Scale, in order to obtain a measure of psychopathology.

Significant positive correlations were found among the object representation scores for dream material, early memories, and Rorschach data when the modal score for the three to five dreams collected from each subject was used. Early memory scores were also correlated with highest and lowest dream scores, and therapist-supervisor object representation ratings were positively correlated with dream, early memory, and Rorschach scores.

Rorschach scores were also strongly correlated with Health-Sickness ratings, with dream scores correlating less strongly with Health-Sickness scores and the early memory correlation essentially nonsignificant and weak.

The authors concluded that their study supported their belief that object representations can be empirically measured using different media and that, while dreams and early memories can shed light on individuals' level of object representations, Rorschach data are likely to yield information about level of psychopathology, at least as measured in this study. Strangely, the authors did not mention the relationship between therapist-supervisor ratings of object representation and their ratings of level of psychopathology on the Health-Sickness scale, so it is unclear to what extent the two dimensions actually differ. The substantially stronger correlation found between therapist-supervisor object representation ratings and dream scores than between those ratings and early memory scores was explained as due to the scale having been originally constructed for use with dreams. Indeed, although dream score correlations retained their strength when the effects of Rorschach and early memory scores were partialled out, early memory correlations dropped substantially when the effects due to dream and Rorschach data were not

included. Thus, it appeared that the Object Representation Scale for Dreams indeed performed best when used with dream data, rather than with other types of data such as Rorschach and early memory material.

Despite Krohn and Mayman's finding that Rorschach data seemed more likely to yield information about level of psychopathology rather than level of object representation, researchers have continued to investigate methods of using Rorschach tests to measure levels of object relations. Urist's study (cited in Blatt & Lerner, 1983a) initially formulated an integrity dimension of object representation, described as "the degree to which objects and the self are experienced as having an enduring, stable, and internally consistent definition" (Blatt & Lerner, 1983a, p. 209). Urist assessed his integrity dimension through the use of five Rorschach variables that were conceived out of separation-individuation theory and correlated the Rorschach data with ratings of the same five variables gathered from TAT stories, autobiographical data, and clinical staff judgments. Factor analysis yielded an object relations factor and a boundary factor reflecting a difficulty in maintaining boundaries between self and other and among external objects. Urist's study is unpublished and its impact on the development of valid measures of object relations is unclear

from Blatt & Lerner's description of it. However, Urist later published a study (1977), again describing a scale based on separation-individuation theory. His scale analyzes the relationships among animate and inanimate figures on the Rorschach in terms of how autonomously those figures function within relationships and assumes that those relationships reflect how the individual experiences interpersonal relationships in his or her own life. Urist compared the Rorschach ratings to scores on another scale he developed for use with autobiographical descriptions of relationships with and among significant others. In addition, ward staff rated the patients in a similar manner based on their own relationships with the patients and their observations of the patients' interactions with others. Correlations among the Rorschach scores, autobiographical scores, and staff ratings were significant, positive, and strong. Urist interpreted the intercorrelations among measures as an indication of the consistency of the object relations construct and concluded that the Rorschach Test was indeed able to measurably tap into that construct.

Thus, the Mayman group has been successful in developing several scales which support the consistency and measurability of the object relations construct. Their tendency to compare their newly developed measures to

each other or to correlate the applications of the same measure to different projective material decreases the strength of their findings, since it is difficult to be sure that they are indeed tapping into an object relations construct and not some other variable. However, as initial research, their findings help to establish methods by which the construct of object relations may continue to be tested.

Another center of research into object relations was begun by Blatt at Yale University in the early 1970's. Blatt and his colleagues have focused on the structural dimensions of object representation, as opposed to the thematic approach favored by the Michigan group. Initially, research centered on the object relations of psychotics, with particular attention paid to the degree of boundary differentiation among objects perceived in Rorschach inkblots (Blatt & Lerner, 1983a; Blatt & Ritzler, 1974). Boundary differentiation is defined as "the initial capacity to differentiate between objects including self-nonself and later to differentiate between the actual object and the mental representation and verbal signifier used to designate the object" (Blatt & Lerner, 1983a, p. 215).

Based on initial research linking the amount of boundary disturbance to representations of human figures,

Blatt, Brenneis, Schimek, and Glick (1976) analyzed human responses from Rorschach protocols obtained in a longitudinal study from subjects at four periods in their lives, ages 11-12, 13-14, 17-18, and 30, and developed a system for rating those responses in the areas of accuracy, differentiation, articulation, motivation of action, object-action integration, and nature of interaction. It was found that a marked increase in the number of human figures with good differentiation, articulation, and integration occurred over this period of development. In addition, there were more figures involved in appropriate, positive, and benevolent interactions. Finally, Blatt et al. compared the human Rorschach responses of this normal sample at age 18 to the human responses of psychotic, borderline, and other seriously disturbed adolescents and young adults and found that a significantly larger number of the seriously disturbed group's accurately perceived responses fell into a lower developmental level, suggesting that contact with conventional reality reduces the level of seriously disturbed persons' object relations. Interestingly, this group's inaccurately perceived responses tended to be more developmentally advanced than those of the normal group. The finding that these inaccurately perceived responses were mostly portrayed in positive and at times grandiose terms

led the authors to suggest that perceiving the world as kind and pleasant, even if unreal, served a defensive function for these patients. Finally, the authors found that the most severely disturbed patients' human responses tended to be less developmentally advanced regardless of the accuracy of perception.

Thus, the work of Blatt and his colleagues supports the theoretical notion that the capacity to form good object representations increases with development and that developmental levels of object relations correspond to levels of psychopathology. In addition, their research supports the Rorschach Test as capable of reflecting articulated notions of how the construct of object relations might be measured in projective material. The Yale group has continued to investigate the clinical utility of their "Concept of the Object" scoring system for human figure responses on the Rorschach (Blatt & Lerner, 1983b). It appears that their system has potential as a diagnostic tool and offers support for the idea that object representation is a measurable, useful concept. However, there are some objections to the use of the Blatt system. First, one criticism of the scoring system is that it is difficult to score. Second, the Rorschach is often perceived by respondents as intrusive and threatening, to the extent that some respondents refuse

the test or offer limited responses. An instrument which appears more clearly understandable in the context of respondents' lives might avoid these problems. Third, a variety of measures is usually best when attempting to assess personality structure. For these reasons, investigation of other methods of object relations measurement appears advisable.

Theories of Autobiographical Memory

The use of autobiographical memory as an indicator of a person's psychological state has a long tradition in the science of modern psychology. Early psychologists recognized the information that could be gained from a study of childhood reminiscences (Titchener, 1900). Experimental psychologists have examined early memory during the course of their other investigations into human memory (Dudycha & Dudycha, 1941). The most marked interest, however, has come within the clinical realm. Beginning with Freud and continuing into the present day, several theoretical approaches have been applied to explain how early memories in particular can be used to explain human behavior (Bruhn, 1984). These approaches have developed from the various theories that seek to understand and explain human development as a means to effective therapeutic intervention.

The first clinician to address the question of early childhood memories was Freud, who wrote about them in the following way:

They do not necessarily reflect important experiences in childhood, not even as must have seemed important from the child's standpoint, but are often so banal and meaningless in themselves that we can only ask ourselves in amazement why just this particular detail escaped oblivion....what is important is represented in the memory by something trivial. For this reason I have called these childhood recollections screen memories; a thorough analysis can evolve from them all that has been forgotten (1938, p. 178).

In Freud's view, childhood memories are important not in their manifest content but in their latent content, that is, what is left unsaid and unremembered. Freud's understanding of early memories arose from his theory about the Oedipal developmental phase in which the child is believed to harbor fantasies of incest and murder against parental and sibling figures. The memory of such fantasies is deemed to be so anxiety-provoking for the child that some memories are forgotten, a phenomenon known as "childhood amnesia", and others are distorted in order to allow the child to move into the next stage of development. According to Freud, the distortions result in dull, emotionally lacking early memories which are mere camouflages for more significant material that can be uncovered during the course of psychoanalysis.

Early memories have continued to be viewed by psychoanalytically-oriented therapists as means of recovering important incidents which have contributed to the development of an individual's personality (Kris, 1956), understanding the individual's "personal myth" by which he or she lives (Potamianou, 1985), or developing a problem focus for time-limited psychotherapy (Binder & Smokler, 1980). Although some clinicians subscribe to the Freudian view of early memory as the consequence of repression, others have become more interested in what the memory tells about an individual's present needs, fears, and desires.

The earliest conceptualization of an early memory function rooted in the present rather than in the past came from Alfred Adler. Adler disagreed strongly with Freud's assertion that childhood memory is useful only as a clue to an individual's past. Adler put forth the notion of early memories as revealing a person's fundamental attitude toward life and wrote of "early recollections" in the following way:

They are most helpful in revealing what one regards as values to be aimed for and what one senses as dangers to be avoided. They help us to see the kind of world which a particular person feels he is living in, and the ways he early found of meeting that world. They illuminate the origins of the style of life. The basic attitudes which have guided an individual throughout his life and which prevail, likewise, in his present situation, are reflected in

those fragments which he has selected to epitomize his feeling about life, and to cherish in his memory as reminders. He has preserved these as his early recollections (1937, p. 287).

Clearly, Adler viewed early memories not as locked doors to a person's past but as representations of an individual's present attitudes. Adler believed that early recollections differ from dreams in that they are not altered by daily occurrences but only by significant changes in one's life, such as psychotherapy or major life transitions.

Since early recollections function as a major assessment tool for Adlerian clinicians, it is not surprising that a number of studies have examined the means by which those early recollections can provide information about how the individual conceptualizes his or her world. One of the most prominent investigators of early recollections in the Adlerian tradition is Harold Mosak. As Mosak (1958) describes his approach, he emphasizes the importance of single-incident memories as opposed to continuing occurrences of childhood, because of the need for detail and visualization of the event. In addition, Mosak is careful to gather several recollections and to remain open to a number of interpretations of each memory, since a single recollection may have a number of facets. Finally, Mosak's approach is truly Adlerian in

that he interprets the individuals appearing in memories as "prototypes" rather than as specific persons.

Another theoretical orientation which has contributed to the understanding of early memory is that of ego psychology. While Freudian psychoanalysis was chiefly concerned with the psychology of the id and the impulses and drives of which it consisted, later psychoanalysts began to lay greater emphasis upon the functioning of the ego, the organizing, structuring influence within the personality. Early memories were conceived as expressions of that organization, as reflections of the mind's attempt to defend against uncomfortable thoughts and experiences. As Mayman (1968) noted:

Today it is as important to the psychoanalyst to know about the ego, its designs, its ways of maintaining repression, as it is to know about that which is repressed. And, just as the latent content of conscious thought processes reveals much about the vicissitudes of the id, the manifest contents of these experiences reveal much about the workings of the ego (p. 303).

Thus, for ego psychologists early memories provide valuable information about how psychological conflicts are managed and resolved through comparison with past experiences that evoked similar emotions. Early memories are believed to be influenced by past life experiences, present character structure, cultural setting, and current stresses (Kramer, Ornstein, Whitman, & Baldridge,

1967)). They are representations of how individuals distort reality to maintain their own psychological comfort. For the Freudians, uncovering the latent content underlying the early memory is the task of the clinician; for those concerned with the psychology of the ego, the manifest content of the early memory provides the most important information about the personality.

The question of what process contributes to the formation of early memories is one that has been addressed by writers from yet another theoretical persuasion. The "cognitive-perceptual model" was developed by Bruhn and his colleagues out of their knowledge of perceptual and memory processes (Bruhn, 1984; Bruhn & Last, 1982). Initial researchers in the field of early memories took pains to verify the accuracy of the memories their subjects told, but for obvious reasons had difficulty doing so (Dudycha & Dudycha, 1941). The idea that literal recall of memories might not be a necessary component of the process was put forward as early as 1932 by Bartlett, who noted the rarity of such total remembrance within the many cases he collected. Bartlett noticed in his perception experiments that the subject:

does not normally take...a situation detail by detail and meticulously build up the whole. In all ordinary instances he has an overmastering tendency simply to get a general impression of the whole; and, on the basis of this, he constructs the probable

detail. Very little of his construction is literally observed and often, as was easily demonstrated experimentally, a lot of it is distorted or wrong so far as the actual facts are concerned. (1932, p. 206)

Evidence from perceptual studies such as Bartlett's gave rise to an additional question: what processes govern the selective nature of perception? In other words, on what basis does the person select the elements he or she remembers from a given situation? In Bruhn's (1984) view, "attitudes" are formed and remain constant, directing the processes of both perception and memory, until an experience occurs which challenges and undermines the presumptions underlying those attitudes. Supporting part of this view is Brewer's (1986) conclusion that although individuals remember a relatively large amount of specific information when asked about a recent personal experience, the influence of elapsed time or of what Brewer calls "strong schema-based processes" (p. 44) leads to a reconstruction of the experience that retains less detailed information but is consistent with the phenomenological qualities of other personal memories. Linton's (1986) finding that over a period of 12 years "similar episodes lose their distinctive character and blend together or are lost" (p. 65) appears to support this idea as well.

Linton's research also indicated that with an increase in time elapsed since experience of the episode, there is an increase in the recall of memories that are significant, emotionally-laden, frequently rehearsed, and social or self-centered rather than professional or work-related. In addition, memories that continue to be relevant to one's life are also more likely to be recalled. The tendency for recalled personal memories to be relevant to the present-day life of the subject and to bear a phenomenological resemblance to other recalled memories supports Bruhn's idea that a person's "frame of reference" (1984, p. 118) contributes to perceptual and memory processes as well. Individuals are believed to organize their experiences, along with their emotional reactions to those events, into a set of schemata, or organized impressions, using past learning to enable persons to respond to present events more efficiently. Thus, memory is seen to consist not of simple images but of organized conceptions imbued with meaning for the individual. Earliest memories are seen not only as guides for future behavior but also as representations of issues that are seeking resolution.

Thus, it can be seen that writers from four theoretical persuasions have constructed views of the process of early memory that are consistent with their

approaches to the understanding of personality. The views are not mutually exclusive; for example, each approach views early memories as reconstructions of reality rather than true portrayals of events. However, the process underlying such reconstructions is perceived differently: for Freudians and ego psychologists, the purpose is to mask psychologically threatening impulses and emotions; for Adlerians, the aim is to remind oneself of one's fundamental attitude toward life; and for those adhering to the cognitive-perceptual view, the process is simply the manner in which perception and memory operate to make understanding and responding to life's demands more efficient. None of these views is necessarily inconsistent with the others. It is quite likely that it is necessary for individuals to unconsciously manipulate information about themselves and their environment in order to protect themselves from the realizations that the world is not uniformly loving and supportive and that there are limits on the amount of control they exert over their own destiny. It is also likely that it is more efficient to compare experiences to one another in order to conceive a manageable, comprehensible version of reality.

Although human beings take in information about all aspects of their world, the social environment may be most important, because of the social nature of the

species. The behavior of other beings, or objects, in the world is of paramount importance to the infant and remains important throughout the lifetime. One need not subscribe to a theory of object relations in order to recognize the importance of the process of developing conceptualizations of the social environment. And if the study of early and other autobiographical memories can lead to greater understanding of individuals' capacity to relate to others and comprehend their social environment, then development of a valid, reliable system for measuring object relationships through autobiographical memories is important.

The present study focuses on the use of autobiographical memories to measure object relations. As a result, the remainder of this review concentrates on early and other autobiographical memories, providing background on the use of autobiographical memories to assess personality in general and then moving on to examine research using autobiographical memories to measure the specific trait of capacity for object relations.

The Study of Autobiographical Memories

Initial attempts to investigate autobiographical, usually early, memories consisted of asking subjects to recall their earliest memories and often other types of

memories, such as earliest memories of parents and most pleasant and unpleasant memories. At times subjects were asked to recall as many memories from various ages as possible. Subjects were usually asked questions about their memories, such as their age at the time of the event, the vividness of the imagery, the significance of the memory, and the emotions involved. Most investigators obtained written or oral accounts of the memories, although a few used checklists to determine the ages from which events could be remembered or the themes present in those memories (Crook & Harden, 1931; Means, 1936). Later investigators eschewed the checklist method because of the higher probability of subjects' faking results.

In their early review of studies on childhood memories, Dudycha and Dudycha (1941) found that the earliest remembered experience for most people dated from age 3 or 4 and that subjects only occasionally recalled incidents from before the age of 3. The authors also reported that strong emotions accompanied the accounts of most early memories. At the time of their review, there was contradictory evidence as to the likelihood of recalling pleasant versus unpleasant events, but the authors found more studies supporting the argument that pleasant memories are more likely to be recalled. There was no clear consensus as to the correlation of

intelligence with age of earliest memory, and the reports of gender differences were difficult to evaluate because of the lack of sophisticated statistical analyses. Finally, few authors reported on sense modalities, but there was some evidence that the visual sense was predominant in early memories.

The study of autobiographical memory since the publication of Dudycha and Dudycha's 1941 review has taken a number of forms. First, some investigators have empirically examined the theoretical hypotheses put forward by Freud, Adler, and their followers. Second, studies have explored how stable such memories remain over time and under the influence of different or changing environmental circumstances. Third, investigators have examined the relationship between autobiographical memories and a number of personality variables and compared memory data to data from other projective tests. Finally, researchers have conducted thematic analyses of early memories and a few researchers have developed extensive early memory scoring systems in an attempt to test hypotheses more rigorously and comprehensively. The purpose of the following sections is to describe these developments in detail.

Examination of Theoretical Hypotheses. Since the earliest assertion about early memories was Freud's be-

lief that early memories were nothing more than disguises for more important repressed material and since that belief flatly contradicts other early memory theories, it should not be surprising that investigators would choose to test that assertion. The definition of a screen memory as an emotionally barren camouflage for more significant information led Purcell (1956) to reason that childhood memories, in contrast to memories from adulthood, would not be significantly related to personality variables. However, he found that the emotional impressions from childhood memories were as significantly related to present feelings of security as those from adult memories. The very fact that strong feelings were found within childhood memories was a refutation of Freud's concept of screen memory, which he had shaped as a result of his experience of childhood memories being "banal" and "trivial" (Freud, 1938, p. 178). Purcell's research cannot completely refute Freud's theory because it can be argued that the memories he obtained were screening other, more important memories. However, Freud's description of a "banal and meaningless" screen memory is seriously compromised, particularly in view of the finding that Purcell's research netted more affective than non-affective childhood memories. It is possible, however, as Purcell points out, that more non-affective

childhood memories would be found in a study utilizing neurotics rather than normal college students as subjects because of the neurotics' greater need to utilize repression.

While a study of neurotics has apparently not been conducted to explore this question, Kihlstrom and Harackiewicz (1982) did investigate the question of screen memories with another normal sample. The authors classified memories as "screen" when they possessed at least three of the following four qualities, each of which is said to be part of Freud's description of a screen memory: lacking any feeling tone, remembered repetitively, predominantly visual, and the person sees himself or herself in the memory image. The presence or absence of "screen quality" was related to the personality construct "harmavoidance," as measured by the Personality Research Form. As expected, screen quality was positively related to harmavoidance, in support of Freud's theory. In addition, subjects with the most recent early memories scored significantly higher on the Harmavoidance scale. This finding was important because people who responded to a request for the "earliest event that they could remember" (Kihlstrom & Harackiewicz, 1982, p. 138) by giving one of a later date than usual could be construed as not remembering earlier events

because of a need to forget them. Thus, this finding again supports the concept of a screen memory and also the notion that childhood amnesia may be associated with neuroticism.

Stability and Change in Early Memories. A significant question is whether early memories are stable over time and in what manner they can change. Investigators have studied the various attributes of early memories under the influences of time, environmental factors, drugs, and psychotherapy. In 1958, Winthrop found that only three of 69 subjects gave entirely different memories 8 weeks after being asked to provide their first memory. However, 32% of the subjects' memories showed some variability. In Kihlstrom and Harackiewicz's (1982) study, 58% of the subjects reported the same memory three months later. With regard to the questions asked about the recurring memories, both age at the time of the event and affect associated with the event were highly reliable. Judges' ratings of clarity, frequency of recall prior to being asked to provide a memory, and number of sensory modalities involved in the image of the memory were found to be moderately reliable. These characteristics appeared to have regressed toward the mean; for example, unclear memories became more clear and clear memories became less vivid. Screen quality of the

memories was fairly stable, although the elements making up the screen quality experienced some changes. For those who recalled a different memory, the second memory tended to be dated earlier than the first; interestingly, the first memory for these subjects was dated significantly later than that of the subjects recalling the same memory both times. Thus, the subjects with less stable memories appeared to do the second time what the other subjects seemed able to do in the first place: recall their earliest memory. There appeared to be no remarkable differences, however, in the areas of clarity, frequency of prior recall, modalities of imagery, or affect associated with the memory, between subjects who reported the same memory and those who reported different memories. The memories of subjects who changed memories did tend to become pleasanter, with unpleasant memories and those falling into the content category of "traumatic" being more changeable than other kinds of memories. Unpleasant memories tended to become more neutral in affect, while traumatic memories fell into the category comprised of memories that could not be considered either "traumatic" or "transitional." Screen quality was also quite inconsistent for these subjects.

In 1963, Hedvig designed a study to explore whether certain environmental conditions in the testing situation

would affect the stability of themes in early memories. She compared the stability of early recollections to that of Thematic Apperception Test stories under conditions of success vs. failure vs. neutral experience and friendliness vs. hostility vs. neutral attitude. Hedvig found no significant differences among the conditions for the early memories but found TAT differences in need for achievement across success-failure experiences and in hostility, aggression, and unhappiness across the friendliness-hostility conditions. She concluded that early memories are more stable than TAT stories under the influence of different emotional conditions.

To explore the changes in early memories due to an altered state of consciousness, Langs (1967) designed a drug-placebo study using LSD-25. On the first day of the study, Langs collected the earliest memory from each of 50 male actors; the next day he administered either 100 mg of LSD-25 or a placebo to each subject and then asked again for the subject's earliest memory. Although 40% of the group receiving the placebo gave different early memories than the day before, the memories were generally taken from the same time period, which Langs suggested meant that they "did not show regressive features" (p. 183). Given the debriefing statements received from several of the placebo subjects that they had been eager

to provide another early memory, it appears, as suggested by Mosak (1969), that the instructions to "disregard the recall of the previous day and reply directly to the present inquiry" (Langs, 1967, p. 172) may have encouraged some of the subjects to give different memories. In any case, there was no relationship found between the personality features of the subjects or their responses to the placebo and their tendency to provide the same or different memories.

For the group actually receiving the drug, however, marked differences could be seen between those who changed their memory and those who gave the same one under the influence of the drug. Using the Manual for the Scoring of the Manifest Content of the Earliest Memory developed by Langs, Rothenberg, Fishman, and Reiser (1960), Langs found that those who changed their memories under the influence of the drug appeared to be "schizoid, narcissistic characters, with poor personality integration and considerable psychopathology" (Langs, 1967, p. 182). In addition, these subjects tended to show a marked reaction to the drug, especially in terms of changes in the self and body image. In contrast, drug group subjects whose early memories remained stable could be separated into three groups, each of which was different from the group whose memories changed. One group of

subjects were impulsive, labile persons whose drug reactions were either expansive or minimal. Another consisted of subjects who showed qualities of rigidity, withdrawal, hostility, and suspicion and tended to undergo a drug experience that was either constricted or marked with great anxiety and feelings of helplessness. The largest group of these subjects consisted of inhibited, obsessive personalities who were independent, heterosexual, and prone to strive for goals but who were also guarded and defensive and had a very minimal drug reaction. This group tended to provide constricted, curt versions of the earlier recalled memories, suggesting that they tightened their defenses in order to protect themselves during the drug experience.

Finally, a few authors have addressed the question of alterations in early memories during psychotherapy. Most of these authors have developed their ideas through the integration of psychoanalytic theory and observation of their own clients. Coming from a view of early recollections as screen memories, Greenacre (1952) points out how resistant some such memories are to change and how much analytic work is needed before the more important material believed to be lying underneath is finally unearthed. Both Kris (1956) and Niederland (1965) discuss how analysis may return the individual to a state

comparable to the one which existed at the time the events of the memory were occurring. These approaches assume, of course, that the events actually occurred in a manner which is useful to ascertain, but this assumption is not a necessary prerequisite for understanding how memories might change over the course of psychotherapy. Eckstein (1976), an Adlerian, applied the Early Recollections Rating Scale, a bipolar attitudinal scale, to a study of a single subject. Eckstein asked his subject to provide a series of early recollections before and after completing a nine-month course of psychotherapy and asked judges to rate each memory separately on the scale's nine basic attitudes. Eckstein found that changes he observed in the client's "life style" were reflected in marked changes in the client's early recollections, as rated by the judges. Thus, in a more empirical study, early recollections emerged as reflections of the work of psychotherapy. While this study is a hopeful sign, the investigation of changes in early memories during psychotherapy has generally been and continues to be hampered by the lack of well-researched, empirically validated scoring systems.

Relationship to Personality and Diagnostic Criteria. A number of studies have attempted to demonstrate the usefulness of early or other autobiographical

memories by relating them to various measures of personality. Although a few have utilized fairly comprehensive scoring systems, most have developed simple ratings that could theoretically be linked to personality measures. One of the first variables to be addressed was that of security feelings, a global concept characterized by feelings of being safe and liked, by a perception of the world as pleasant and of others as good, and by a tendency to be optimistic, happy, and self-accepting. Ansbacher (1947) found that high scores on the Maslow Security-Insecurity Test were associated with the following memory aspects: participation in group activities, activity in general, and being treated kindly by others. Low security scores were associated with memories of being cut off from the larger group, getting or losing prestige, remembering oneself doing something bad, or remembering others receiving kindness and attention, suffering harm, or inflicting harm on one another. Ansbacher's study is instructive, but the lack of statistical analyses in his work make his findings questionable.

Accordingly, Purcell (1956) followed up Ansbacher's work by asking subjects to provide childhood, preadolescent, adolescent and adult memories, along with their ratings of which social and emotional characteristics fit

each memory. Purcell then statistically related those aspects to Maslow's security scores. Purcell found that security feelings were negatively correlated with memory ratings of unpleasantness, being alone, feeling guilty, jealous, inferior, or embarrassed, feeling fearful, and reporting worry or depression and punishment or frustration. Security scores were positively correlated with pleasantness and with joyful, elated, or happy feelings. Ratings of participation in group activity, getting or losing prestige, self-sufficiency, danger or harm to self, satisfaction, activity, or receiving kindness or aid were not significantly correlated with security scores. Purcell does not completely address the question of differences in the memories according to age of event, but he does report great similarity between memories from childhood and those from adulthood. Of course, the fact that the subjects rated their own memories may have led to results that an independent appraisal of those memories might not support.

The search for relationships between early memory data and variables that shed light on the personality has often led to examination of the emotional tone of the memories. As stated earlier, Dudycha and Dudycha, in their 1941 review of childhood memory studies, concluded that pleasant memories tended to be recalled more often

than unpleasant ones, although they pointed out that almost one-third of the studies they reviewed found that unpleasant memories predominated. In the following year, Rapaport (1942) commented that individual differences seemed to account for the pleasant vs. unpleasant memory predominance discrepancy among studies. In a 1948 study of men, Waldfogel examined the ratio of pleasant and unpleasant memories to total memories, considering this variable to be a measure of optimism-pessimism. Waldfogel attempted to find relationships between optimism-pessimism and a number of personality factors but found only one that was significant: extreme memory pessimists tended to have higher scores on the Thurstone Personality Schedule than extreme memory optimists, suggesting that the pessimists were more emotionally unstable or neurotic.

McCarter, Tomkins, and Schiffman (1961), on the other hand, found no support for prediction of optimism-pessimism using the early recollections of male college students. Their study attempted to predict performance on the Tomkins-Horn Picture Arrangement Test and did obtain significant results in seven areas that are associated with degree of activity and social interest: strong superego in work orientation, inertia in work orientation, sociophilia, high-activity level of expression,

fantasy level of expression, superego in social interest, and low general work orientation.

A number of more recent studies have taken a look at the variables of social interest and degree of activity, with some researchers more interested in investigating the degree of activity initiation. In 1966, Reimanis found that males' early recollections of parents as cold and rejecting were positively correlated with convictions for juvenile crimes. Crandall and Reimanis (1976) later found that males' early recollections of parents as cold and rejecting also predicted present low social interest on the Crandall Social Interest Scale. In both studies, no relationship between early memories and social interest was found for women. Friedberg (1975) compared male homosexuals to heterosexuals and reported that homosexual early recollections appeared to reflect less social interest, a weaker general identity, a poorer gender identity in particular, and a greater tendency to view the world as dangerous and hostile.

The earlier research by McCarter, Tomkins, and Schiffman (1961) which suggested that a person's level of activity could be derived from early memories has been followed by a couple of studies which examine how early memories can provide information about a person's tendency to behave actively or passively. Rogers (1977)

measured subjects' locus of control and tendency to take an active or passive stance and found that internal locus of control and a more active stance were positively correlated to undergraduate grade-point averages.

In an attempt to utilize early memories as a "culture-free" projective technique, Lord (1971) coded the earliest memories of ninth-grade boys as active or passive and positive or negative. In an active memory, the subject would have initiated the event he recalled or initiated the resolution of that event. If the subject only responded to an event initiated by other people or by external circumstances, the memory was coded "passive." Events which could be considered happy or which the subject recalled as positive when asked about the memory afterward were considered "positive." Similar but opposite criteria were used to code "negative" memories. Lord compared the ratings of three earliest memories and two earliest memories of each parent to Initiator-Reactor scores on a "spy" question asking subjects to describe how they would tell a person to act if he was to impersonate them. In addition, Lord compared the early memory scores to scores on the Pathways Sense of Effectiveness Questionnaire, scores of a sense of separate identity that were obtained from Thematic Apperception Test protocols, ratings of vocational goal

clarity, and measures of directed activity in current self-representation and differentiation of body concept obtained from figure drawings.

Lord found that positive memories were significantly related to both sense of separate identity and differentiation of body concept and that active memories were significantly related to sense of separate identity. A trend for active memories to be related to differentiation of body concept was also found. Early memories were not found to be related to sense of effectiveness or to clarity of vocational goals. There was a suggestion of a relationship between active memories and being rated an Initiator on the Spy question, but statistical analyses were considered inappropriate because of the small sample ($N=32$). Finally, in a look at background data, it was found that intelligence was positively and significantly related to number of positive vs. negative memories.

Thus, it appears that early memories can indeed be utilized to provide information about one's sense of security and degree of social interest. The usefulness of early memories in providing information about a person's degree of optimism or pessimism appears to be minimal, at least as measured by the studies described. However, scoring early memories for variables relating to the

degree and nature of activity does appear to be a worthwhile enterprise, particularly when the active-passive dimension is applied. In addition, there is some evidence that assessing the positive vs. negative tone or resolution of a memory can be instructive.

Inspired by the relationships found between early memory ratings of social interest, activity, and level of security feelings and scores on previously validated tests for these traits, Barrett (1980) examined three other personality variables. She found that judges' ratings of anxiety and locus of control on earliest memories were significantly and positively correlated with scores on the Taylor Manifest Anxiety Scale and the Adult Nowicki-Strickland Internal-External Scale, respectively. Judges' ratings of need for approval correlated significantly with scores on the Marlowe-Crowne Social Desirability Scale only for male subjects. Barrett explained the latter finding as a result of low interrater reliability in the scoring of females' need for approval ratings, suggesting that her scale needed to be modified in order to improve the accuracy of those ratings.

In a later study, Barrett (1983) focused on the personality characteristics of self-disclosure, dominance, and friendliness. Again, subjects were asked to provide their earliest memory. While dominance and

friendliness were scored by judges on 5-point scales, self-disclosure was defined as being made up of three components which were investigated separately: friendlier interactions within the memory, greater length in words (considered to indicate more willingness to reveal oneself to others), and earlier age of memory. In the latter case, the ability to remember (or willingness to relate) memories from an earlier age was assumed to indicate a less guarded, more self-disclosing style.

Barrett found that memory ratings of dominance were significantly correlated with scores on the dominance scale of the Interpersonal Checklist only for female subjects; in fact, dominance scores for males were inversely correlated, although not significantly, with memory dominance ratings. On the other hand, memory ratings of friendliness were significantly correlated with scores on the love scale (again, an expected finding) only for male subjects, with essentially no correlation for females. However, friendliness ratings from female memories were significantly and positively correlated with both scores on the Self-Disclosure Questionnaire and longer length in words. For the entire sample, memory friendliness ratings were significantly correlated with lower ages of memories. Younger memory age and longer length in words were significantly associated with self-disclosure scores

for the entire sample, as expected. Finally, male dominance ratings from memories were correlated with longer length in words. Thus, it appears that the hypothesis that self-disclosure can be measured by a longer length of memory and lower memory age was supported, with partial support for its association with friendliness. The latter finding may have been influenced by what appears to be a problem in the rating scales for dominance and friendliness, given that each scale represented different constructs for males and females.

In an attempt to ascertain the relationship between various elements of earliest memories and personality traits measured on a well-respected personality instrument, Kihlstrom and Harackiewicz (1982) analyzed the association between the 20 scales of the Personality Research Form and the following memory variables: age at time of reported event and the type of memory content. (Other aspects of this study have been discussed previously in this paper.) The authors found a nonsignificant trend for later memory ages to be associated with lower Dominance scores, but aside from the already reported finding that Harmavoidance was significantly and positively related to later memory ages, no other personality scale was associated with the subjects' ages at the time of the reported events. However, several scales

were related to content, the categories of which included trauma, transition, and trivia, the latter of which contained any content which would not fit into the other two categories. Subjects recalling transitional content scored relatively high on Change and Play but scored relatively low on Order. Those recalling either transitional or traumatic content, rather than trivia, were more likely to score high on Impulsivity. Considering the large number of personality traits represented in this study, the small number of significant findings suggests that the subject's age at the time of the event reported in the memory has little to do with his or her present personality. In addition, it appears that personality traits, as measured by the Personality Research Form, are not particularly related to memories defined as traumatic or transitional.

An ambitious attempt to demonstrate the relationship between earliest memory variables and ratings that were based on other projective data is the 1965 study by Langs. Langs asked raters to score the earliest memories of 48 male actors for types of persons present and for items related to the role of the subject (active, passive, ineffectual, childish, or subservient or superior to others), perception of the environment (unpredictable or a combination of supportive and traumatic), presence

or absence of others and of interpersonal interaction, and the nature of thematic content. The scoring of these items was done separately, with disagreements resolved through consensus. The ratings were then compared to items from a personality assessment which was based on a clinical interview, Rorschach Test, Thematic Apperception Test, Wechsler-Bellevue Test of intelligence, and an autobiography. The personality items reflected motives, defenses, thought processes, inner states, identity, and interpersonal behavior. The validity of the ratings from the personality assessment is unclear, although some previous agreement with other personality measures had been achieved.

Langs first tested some hypotheses about the relationship of memory items to the personality ratings and then conducted an exploratory study to assess the general relationship between the two measures. In addition, Langs analyzed the intercorrelations among the memory items to ascertain how themes and roles tended to cluster. Langs' method of testing enormous numbers of variables within one set of analyses do make his findings difficult to interpret. To illustrate, Langs made 773 predictions and conducted 4560 intercorrelations in the accompanying exploratory study. Langs does report that the number of significant correlations was found to be

more than that expected by chance alone. The sheer number of significant results prohibits a full retelling of those results, but a few of the stronger findings that appear particularly pertinent to the present study will be discussed.

The role of the subject within the memory as a pawn of others was found to be related to hostility towards other males, fears of aggressive impulses, difficulty with authority, and problems with identity and self-esteem. An ineffectual subject role was associated with dependency and lack of self-assertion, difficulty with authority, a lack of positive attitudes toward work, failure to strive for goals when frustrated, homosexual trends, conscious heterosexual guilt and anxiety, affective lability, failing defenses under stress, and problems with identity and self-esteem. A memory experience of others being subservient to the subject was associated with hostile relationships, anticipation of exploitation, and a lack of well-modulated affect.

A childish, infantile role in the memory was found to be related to lack of hostility toward males, lack of fears about aggressive impulses, dependency, lack of positive attitudes toward work and responsibility, failure to strive for goals when frustrated or to seek creative outlets, passivity, suggestibility, narrow range of

interests, and cognitive naivete. A passive subject role was associated with a lack of manipulative and demanding attitudes, while an active subject role was related to a tendency to act out and to manipulate and demand within relationships and a lack of inhibition or overcontrol.

With regard to the subject's view of the environment, Langs found that unpredictability (in a negative sense) was associated with hostility toward males, fears of aggressive impulses, identity problems, submission to maternal figures, ruminative tendencies, tendency to use the defense of magical undoing, and a sensitivity to challenge and threat. The appearance of both support and trauma within the memory was associated with depression and self-abasement, fears of aggressive impulses, and a tendency to use the defense of undoing.

In terms of relationships portrayed in the memories, an absence of interaction between the subject and others was associated with a lack of hostile relationships, a lack of open resentment toward men, fewer self-punitive attitudes, and a tendency to not use the defense of undoing. Themes of separation and loss correlated with open rebelliousness, while an absence of active persons in the memory was associated with a lack of passive-aggressiveness or tendency to anticipate exploitation.

Finally, numerous significant intercorrelations among the memory items were found. Langs concluded from his entire study that the manifest content of the earliest memory is indeed related to personality across a number of dimensions. While his results are thought-provoking particularly from an object relations perspective, because of the emphasis on roles and interpersonal interactions in his study, the individual findings are more empirically suspect because of the uncertain validity of his criterion measure and because it is unclear how many judges were responsible for rating the personality variables. That is, Langs issued no statement regarding interrater reliability or even whether more than one rater was involved in the personality assessment, as would be appropriate.

A number of studies have investigated specific elements of personality style as they correspond to autobiographical memories other than early recollections. Carlson (1980) gathered critical incidents of the affects joy, surprise, excitement, anger, disgust, fear, and shame from subjects who were also classified into Jungian types using the Myers-Briggs Type Indicator. Judges used the memories to predict two Jungian types (Extraverted Feelers and Introverted Thinkers) and also categorized the memories in terms of vividness of feeling and as

predominantly individual or interpersonal, depending on whether a central theme of interpersonal relationships existed in the memory. Carlson found that judges were indeed able to correctly identify Jungian types. In addition, extraverts reported significantly more interpersonal memories of joy, excitement, and shame than did introverts. Finally, feeling types gave significantly more emotional memories of joy, excitement, and shame than did thinking types. This difference was found not to be due to either extraversion-introversion or sensing-intuition aspects of the personality.

In 1982, McAdams published a study which related Thematic Apperception Test themes of intimacy and power to the same themes measured on different types of autobiographical memories. McAdams had been influenced by writers such as Markus (1977), who found that persons who were able to articulate a sense of themselves as dependent or independent were more likely to access memories in which they behaved in a manner consistent with their self-definition. On the other hand, memories from those individuals who did not have a well-articulated self-image as dependent or independent did not reflect that association. It was hypothesized that when experiences are considered personally meaningful to the individual, personality-memory interactions should appear.

For this reason, McAdams (1982), in a report of two studies, hypothesized that significant relationships between TAT and memory measures of intimacy and power would be found for memories representing "peak experiences" and "great learning experiences" but that little or no association would be found for memories of merely satisfying, neutral, or unpleasant events.

In the first study, McAdams achieved the expected intimacy correlations for both peak and great learning experiences but found a significant power correlation for peak experiences only. Additional investigation revealed that the latter correlation was true for female subjects only. In the second study, which requested four types of experiences rather than two, significant intimacy and power correlations were again found for peak experiences, with smaller correlations found for satisfying experiences and no significant correlations for neutral or unpleasant experiences. However, there was a positive correlation between power content and a reporting of anger, annoyance, or rage toward another person in the unpleasant experience memory. Thus, the author's hypotheses were largely supported. Memories of peak experiences, or those seen as particularly important in the lives of subjects, were more likely to provide information about intimacy and power motivation. Unexpected was the result

that merely satisfying experiences could also provide that information, although to a lesser extent. The inability of memories of neutral or unpleasant experiences to give that information indicates that only certain types of events, either those that are positive in nature and/or those that are highly emotionally charged or relevant, should be utilized to assess intimacy and power motivation. Whether this is true for other types of personality variables requires further investigation.

An approach often used to gather important diagnostic information from early memories is analysis of the content differences within the early memories of patients belonging to known diagnostic groups. In a study of 100 patients, Friedman (1952) examined differences in the early memories of those diagnosed as either neurotic or psychotic. He concluded that social interaction occurred more frequently and was more positive in tone in the memories of neurotic patients and that their memories did not contain themes of loss of identity or fear of that type of loss, in contrast to memories obtained from psychotic patients.

In another study contrasting neurotic and psychotic patients, Lieberman (1957) asked psychotic and nonpsychotic female patients for their earliest memories and their earliest memories of their parents and also

administered a test battery containing the Wechsler-Bellevue intelligence test, the Rorschach Test, the Bender-Gestalt Test, and House-Tree-Person drawings. Two reports were written independently, one based on the memories and the other based on the battery of other tests. The reports were then compared through the use of a checklist of items pertaining to perception of and reaction to the environment. The author statistically compared the number of agreed-upon items with the number not in agreement and found that the two sets of tests appeared to have measured the same traits. However, a larger amount of information had been elicited by the test battery than by the memories alone. The author also compared the content of memories from psychotic and nonpsychotic women and found suggestions of differences, although no statistical analysis was possible because of the small number in each content category.

One early study which utilized no statistical procedures but set the stage for the later follow-up of those findings was that of Plewa (1935), who studied patients' early memories for distinguishing features. Plewa concluded, for example, that the early memories of patients suffering from psychosomatic disorders revealed a concern with illness, that punishments appeared in the memories of masochistic character disorders, and that the

memories of schizoid and schizophrenic patients were filled with either trauma, rage, and frustration or sexual exposure.

Jackson and Sechrest (1962) followed up on four of Plewa's observations by statistically testing whether the memories of patients with anxiety-reaction would show fear, whether depressed patients would give memories of abandonment, whether obsessive-compulsives would recall strong prohibitions, and whether gastrointestinal distress would appear in the memories of patients with disorders such as ulcers and colitis. The authors found that for each diagnostic category the hypothesized content (e.g., fear, for anxious patients) occurred more often than any other. However, predictions were not significant for each individual diagnostic category. The probability that all four hypotheses would be confirmed was found to be significantly better than chance, but the authors concluded that the low frequency at which each content area occurred indicated a lack of practical use as a diagnostic tool.

Two additional attempts to use early memories to distinguish between patients of different diagnostic categories were reported by Langs and his colleagues. As part of an attempt to construct a system for scoring earliest memories, Langs, Rothenberg, Fishman, and Reiser

(1960) compared the earliest memories of hospitalized women diagnosed either hysteric or paranoid schizophrenic. The authors found that the memories of hysterics included gross trauma with common themes of punishment and illness. Others, or, less often, the subject, were portrayed as attacking or openly hostile. These subjects described action-oriented memories with moving persons, active roles, and changing settings. Their memories tended to be rich in thematic content, particularly references to body parts, concern with clothing and appearance, rejection, moral issues, and damage and destruction with mother as cause and subject as recipient.

On the other hand, Langs et al. found that the paranoid schizophrenic women described memories that varied in feeling tone (although the subjects viewed those memories as either pleasant or neutral), left settings and roles unclear, and pictured the subject as a recipient of harm or of care. The majority of this group's memories appeared empty and lacked interpersonal interaction. Subjects were pictured as alone and either in danger or receiving care, particularly being fed. A minority of this group's memories included interaction and contact. In contrast to the hysterics, there was less reference to body parts or to damage and destruction and

no trend as to perpetrator or victim of the latter. In addition, memories were more likely to be ideational and barren rather than action-oriented. Finally, although logical memories with full reality contact predominated, memory disconnectedness and reality problems were more present in this group's memories than in those of the hysterics.

Langs' additional attempt to distinguish among diagnostic groups came in a 1965(b) study using male subjects in which he compared the earliest memories of obsessive-compulsives, inhibited obsessive-compulsives (defined as obsessive-compulsives whose defenses are particularly inhibiting and restricting), hysterics, and narcissists. This study was a part of his 1965(a) research mentioned earlier and thus included the same personality assessment method (ratings of projective data) and memory rating procedure (ratings of persons, roles, perceptions, interpersonal interactions, and themes). Although 20 of 28 of his hypotheses were not statistically supported, he did find that obsessive-compulsives's memories included few people, subject passivity, and a low amount of activity for those people who were present. The memories of inhibited obsessive-compulsives displayed significant traumatic and destructive content and the presence of persons losing control. Hysterics' memories

were more likely to include women and the movement of the subject. Finally, narcissists tended to include themes of travel and separation. Langs concluded that the memories of persons with certain characterological disorders reflect the primary issues which concern them.

The ability of early memories to predict diagnostic groupings was further investigated by Ferguson (1964), who collected early recollections from psychotic, neurotic, and normal subjects and asked 10 clinicians, classified as having Adlerian, Freudian, or eclectic orientations, to match the memories to life style summaries written from the memories by Adlerian clinicians. Her purpose was to demonstrate that life style summaries based on early recollections are communicable to clinicians from other orientations. As one might expect, accurate matchings occurred significantly better than chance. However, the clinicians were not able to make significantly accurate diagnoses from the early recollections, suggesting either that the method used to analyze those memories was inadequate or that early memory data alone is insufficient for diagnostic purposes.

In another study, Hedvig (1965) investigated how well experienced Adlerian clinicians could use early recollections to determine diagnoses already assigned by a clinical team. Elementary and high school students had

been assigned diagnoses of either psychoneurosis or adjustment reaction with conduct disturbance. Hedvig found that two of the clinicians could make significantly accurate distinctions, one better than the other, but that the other clinician was unable to diagnose correctly. It is not clear how the memory data were analyzed by the clinicians. The results of both studies indicate, however, that the ability of even experienced clinicians to make accurate diagnostic distinctions using early recollections alone is extremely limited, at least in terms of the methods used to analyze those memories within these two studies.

A study which presents more optimistic findings in the investigation of the diagnostic feasibility of early memories is the 1962 research of Friedman and Schiffman, in which they developed hypotheses about the early memories of schizophrenics vs. psychotically depressed patients and then attempted to place patients in the correct diagnostic group using those hypotheses. The authors expected that the early memories of schizophrenics would display an absence of positive affects, either an absence of persons or personal relations that are negative at best, unmitigated fear, terror, and/or horror, and concern with bodily harm other than that caused by illness or aging. On the other hand, they

hypothesized that psychotically depressed patients' memories would show positive affects, tragic affects such as sadness or distress if negative affects were present, work and/or achievement orientation, a strong but generalized desire to be emotionally close to others, and concern with physical illness and aging but not with other bodily harm. The authors achieved significantly accurate diagnostic placement of the patients using these hypotheses, which indicates that this may be a practical method for situations in which the clinician is deciding between these two diagnostic categories. However, the method has less usefulness when there are other diagnoses to be considered.

In summary, the studies discussed in this section have related early and other autobiographical memories to a number of personality measures. Autobiographical memory material has been found to relate significantly to Jungian personality types, intimacy and power motives, anxiety, security feelings, degree of social interest, measures of identity and body concept, locus of control, and needs for change, play, order, and impulsivity. In addition, a number of researchers have succeeded in distinguishing among persons from different diagnostic groups on the basis of the content of their early memories. While some specific distinguishing

characteristics have been revealed, in general the findings are not clinically useful or are helpful only when one knows that an individual belongs in one of two diagnostic groups. These findings are thought-provoking and encouraging for future research but may indicate that more systematic methods of assessing autobiographical memories must be found for those memories to acquire practical utility.

Systems of Autobiographical Memory Assessment.

As seen in the earlier sections of this paper, studies of autobiographical memory have tended to rely on specific, focused scales which have often been devised by the author and then never used again. Other investigators have simply noted what elements appear most significant in the memories, without pulling those together into a coherent scoring system. One of the most common approaches is to devise content categories in accord with what the researcher deems to be the most logical result of his or her theoretical background or observation of the data. An example is the already-mentioned study by Kihlstrom and Harackiewicz (1982) which divided memories into traumatic, transitional, and trivial events. Another example is the study by Cowan and Davidson (1984), in which the authors asked subjects for one of their earliest memories containing a strong emotional reaction to another person.

In their search for a simple classification scheme which would reflect major emotional/social developmental themes, the authors found that most memories focused on one of two themes: attachment issues or competence issues. There were also a number of memories that included themes such as physical safety, morality, or a combination of attachment and competence.

A number of authors have written nonempirically based suggestions for how to elicit and interpret memories. For example, Bruhn (1985) suggested that the first early memory mentioned by the patient is a clue to his or her initial self-presentation. Bruhn also encourages clinicians to evaluate a series of early memories and discusses five types of patterns which may convey important prognostic information. Bruhn defines memories as healthy or positive when they focus on a positive interpersonal interaction and the affect is primarily positive, when a problem is overcome, or when learning follows the description of a negative memory. On the other hand, a negative memory is defined as one that contains an unfavorably resolved destructive interpersonal interaction, mastery failure, loss, avoidance, or significant problems with impulse control, judgment, or reality testing. Bruhn's five patterns include deterioration, which suggests an initial good self-presentation

but a lack of inner resources to sustain that impression; improvement, suggesting present difficulties but available inner resources; cycling good and bad memories, reflecting an uneven pattern of strengths and weaknesses and possibly affective disturbance; an unremitting series of negative memories, indicating coping deficits, poor object relations, pessimistic self and world views, and/or a depressed mood; and finally, a continuing series of good memories. If the latter pattern includes the posing and resolution of a series of problems, it is seen to indicate an abundance of coping skills; if very positive memories accompany a passive self-presentation, it suggests either a narcissistic orientation or an overridealization of the past which may accompany a depressed mood.

While Bruhn's article is suggestive, and he provides a case illustration of how his conceptualization could be utilized, his ideas rest on theory and clinical observation and do not appear to have been empirically tested. The same can be said for Mayman (1968), who identified themes in the early memories of normal, neurotic, borderline, and psychotic individuals and organized them according to a developmental psychosexual paradigm. In addition to the elements Mayman believes are related to psychosexual stages, he includes other

aspects involving relatedness, coping, self-structure, images and representations of self and others, and defense modalities. While the elements Mayman identifies can be seen as important aspects to assess, the lack of any empirical study testing the accuracy of his formulation makes its use severely limited.

The first study found in the literature which attempted to systematically analyze earliest memories is one which originally intended to demonstrate that valuable information could be obtained from manifest content, rather than requiring the mining of deeper material. Langs, Rothenberg, Fishman, and Reiser (1960) defined "manifest content" as "that material which could be extracted from the memory without the patient's associations" but which "includes inferences which can be made by the scorer at various levels of understanding or abstraction" (p. 525). The authors state that the items included in their scoring system were "developed empirically" (p. 525) but give no details as to how that was achieved. In the published study, Langs et al. describe the application of their scoring system to the earliest memories of two diagnostic groups: paranoid schizophrenic and hysterical women. The differences between the two groups have already been described earlier in this paper. In the authors' method, subjects are

asked about a number of dimensions: feeling tone, clarity, presence of color, frequency of thought about the memory, age, sensory modalities, and the subject's visual perspective. The analysis of the memory consists of what is directly mentioned in the memory, such as characters, setting, movement, mood, and descriptions, as well as concepts which may require some inference, including thematic content, logic and quality of the recall, quality of character roles, and perception of and reaction to the environment. Finally, the system includes clinical references, including current social functioning, therapy attitudes, symptoms and character structure, and symbols and dynamic themes.

Langs et al. report an average reliability of 77% for three scorers, with a range of 50% to 100% across items. The comparison of the two diagnostic groups revealed a number of significant differences, indicating that this method has some diagnostic value. However, the authors themselves report that "first memories...are related to clinical diagnosis in a gross manner" (p. 531), suggesting that additional research, particularly with larger samples, is needed to make this a truly viable assessment device.

The next attempt to construct a useful method for analyzing early memories came from Levy and Grigg (1962),

beginning from a belief in the early memory as "a product of preconscious ego-processes, manifesting the synthetic function of the ego in its attempts to weave underlying emotional states pushing for an expression into an early recollection" (p. 84). The authors conducted a "thematic-configurational analysis" in which themes which reflect the individual's central emotional state at the time are identified and related to each other. Levy and Grigg devised three major qualitative scales: Dependency-Independency, Sexuality, and Destructive Aggression-Construction Aggression, each of which contain a continuum of themes which are ranked according to the degree to which they express progressive or regressive trends. Relating these themes to each other and identifying a configurational pattern is a method of assessing complex aspects of the personality.

In terms of reliability and validity, the authors found in a pilot study that 80% of themes were agreed upon completely, 12% were disagreed upon, and 8% were scored by one rater but not by the other. In the published study, the authors compared the ability of a less experienced clinician to score the memories, resulting in 74% of themes being correct, 7% incorrect, and 18% missed. Levy and Grigg compared the analysis of the memories to an analysis of interviews with patients'

therapists and attempted to match memory formulations with formulations from the interviews, resulting in 11 correct matchings out of 21 subjects; however, only 6 were matched correctly by both matchers. The authors state that 70% of the "major themes" (p. 90) extracted from the interviews appeared also in the memories. They go on to say that patients whose matchings were completely missed almost always relied on denial as a prominent defense, which was not true of those patients whose matchings were achieved by both matchers. In addition, the memories of the former group appeared more "vague and barren" (p. 91). The authors use this finding to emphasize the importance of the method of collecting memories, since that factor was not controlled in their study. It may also be that the memories of some persons may be more difficult to score accurately if they utilize a denial defense, just as Rorschach protocols containing card rejections and a paucity of material are almost impossible to score and interpret correctly. Finally, the authors suggest that individual differences between the raters may have been an important variable. Whether this problem would simply require more elucidation of the scoring system and extended conference between the raters or indicates a basic problem in reliability is not clear.

A description of a scoring system for early memories which reflects the influence of both psychoanalytic theory and the work of Levy and Grigg is reported in Burnell and Solomon's (1964) attempt to compare systematic and intuitive methods of classifying themes and their use of early memory data to predict success and failure in a military basic training situation. The intuitive analysis consisted of one author's extraction of themes from early memories and then a comparison of those themes to ones extracted by the second author from a social history. The authors report that in 7 of 12 cases, similar themes were found and that differing themes were not contradictory but complementary, in that they supplied additional information. The systematic analysis included three major qualitative scales which corresponded to psychosexual stages of development: Dependency (Oral), Aggression (Anal), and Sexuality (Oedipal). As in Levy and Grigg (1962), themes were arranged on a regressive-progressive continuum. However, Burnell and Solomon merely extracted the most prominent theme rather than attempting a configurational analysis. The authors also differed by not investigating interrater reliability but rather addressed themselves to temporal stability; that is, the memories were rated twice by the same person five weeks apart. Seventy-eight percent of

themes were scored identically, while 83% of theme categories received the same identification. Since the authors had classified memories as containing regressive or progressive themes, they tested the temporal stability of these classifications and found it to be 87%, excluding "scene memories" (p. 559), which were essentially descriptions of scenes such as a street or house or object and were not associated with affect. The authors reported that the difficulty in reclassifying theme types correctly seemed due to the ambiguity of the memory or the presence of more than one theme within the memory.

With regard to how well the system discriminated between a group of controls and a group of outpatients, the authors found that the regressive-progressive dimension was not helpful, since so many regressive themes were scored. Neither was there a difference in numbers of dependency themes. However, there were significantly more aggressive themes present in the memories of the patient group than in those of the controls. The authors also reported that differences in the two groups' memories could be seen not so much in terms of content but rather with regard to the quality, intensity, and complexity of the memories, possibly because the psychologically intense basic training situation was more likely to bring out strong reactions in the group which

had difficulty adjusting to it, i.e., the patient group. Finally, statistically significant prediction of success or failure in the basic training experience was found using a separately derived system. However, differences across judges were found, and the classification scheme allowed a substantial number of false positives and true negatives, thus appearing to limit its practical usefulness.

The scoring systems just described have tended to be one of two types: attempts at comprehensive coverage of all the possible information early memories could supply or thematic analyses based on psychoanalytic theory. Although relational themes are contained in these systems, they tend to cover other items as well. One system which was constructed to assess a single area of personality development is the Ryan Object Relations Scale, which was developed in three unpublished studies (Ryan, 1970, 1973; Ryan & Cicchetti, 1983) and is described and utilized in Ryan and Bell (1984). Ryan's scale is a 20-point continuum of object relations which includes levels appropriate to psychotic, borderline depressive, neurotic, and normal development. The emotional quality and integrity of the self- and other-representations and the quality of the self-other interaction is assessed. Ryan and Bell report high

interrater reliability (86%) and have used the scale to demonstrate the effect of psychoanalytically-oriented inpatient psychotherapy.

Ryan and Bell (1984) collected an earliest memory and the earliest memories of both parents from 63 hospitalized psychiatric patients, most of whom were diagnosed with schizophrenia or schizoaffective disorder. Earliest memories of parents yielded no significant results, but for the earliest memory, a positive change in object relations was seen from intake to discharge and from intake to 6-month follow-up. In addition, rehospitalizations were twice as likely for patients scoring at a low level of object relations at 6-month follow-up as for those scoring at a high level. Comparison of object relations scores with the Brief Psychiatric Rating Scale and the Strauss-Carpenter Level of Function Scale items including quality and quantity of social relations revealed only low correlations. There was no reliable relationship between object relations and previous length of treatment.

While Ryan's scale appears promising, much of the work on it has been conducted with severely disturbed persons, often in an long-term inpatient setting. Despite some early work by Ryan (cited in Blatt & Lerner, 1983a) relating object relations to a neurotic person's willingness to develop a therapeutic alliance, it is not

as clear how his scale would function with normal or neurotic individuals.

A more recently developed system which was constructed so as to assess early memories in ways which prior researchers had found meaningful is the Comprehensive Early Memory Scoring System (CEMSS; Last, 1983). This system is designed to separately assess the following aspects of early memories: characters, setting, sensory-motor modalities, relation to reality, object relations, affective tone, degree of damage present, and thematic content including givingness, mastery, and mutuality. The CEMSS was originally constructed as an aid to filling the gap in the literature on early memory assessment in children, but it has been applied to adults without difficulty. Last and Bruhn (1983) created three groupings of well-adjusted, mildly maladjusted, and severely maladjusted 8- to 12-year-old boys according to their scores on the Behavior Problem Scale of the Child Behavior Checklist and asked judges to predict group membership on the basis of their experienced clinical judgment of two early memories. The CEMSS scores were compared to the judges' predictions. As part of the procedure with a new assessment device, Last and Bruhn assessed interrater reliability on the CEMSS as 92.6%, with a range of 64% to 100% across items, and discarded

variables which were present in less than 10% or more than 90% of the early memories. The authors found that 59% of their subjects were correctly classified on the basis of their second early memory, with much better prediction for the two better adjusted groups. Classification for the first memory and for a composite score obtained from the data for both ranged down to 49%. Best predictions were obtained from the following sections of the CEMSS: Relation to Reality, Sum of Setting Types, Presence of Caretaking Relatives, and affect as described by the subject. The measure of object relations was one of several variables which approached a significant association with good adjustment as measured by the Behavior Checklist. In addition, classification by the CEMSS was shown to correctly identify more subjects than any of the three clinicians. Finally, the CEMSS was found to outperform subject variables such as age, socioeconomic status, and WISC-R Vocabulary score.

In another study of the CEMSS, Acklin, Sauer, Alexander, and Dugoni (1987) utilized the measure to predict depression in college students. Depressed subjects identified by self-report mood state and depression measures were differentiated at a rate significantly better than chance on the basis of certain CEMSS items alone.

The Acklin et al. study demonstrated 85% interrater agreement, with a range of 65% to 96%.

While the above studies speak to the promising nature of the CEMSS, a close look at the scoring system suggests that it is an amalgam of a number of variables which come from a number of theoretical points of view. While this may be appropriate for some purposes, it may be unnecessary for studies attempting to investigate a narrower range of material. There is also the question of validity. Although the CEMSS has been compared to the Child Behavior Checklist, only a few of its items produced significant associations, and in the Acklin et al. study, only some of its items were compared to other measures. Although a Level of Object Relations score can be computed within the CEMSS, there is no evidence that it has ever been shown to be related to any other object relations measure.

Critique of the Literature. Although much work has been done to demonstrate the usefulness of autobiographical memories in assessing personality traits and structure, there are several problems which limit the conclusions that can be drawn about the clinical usefulness of this technique. First, although many researchers specify the need for subjects to report an incident occurring only once, rather than an event which occurred

over time or a series of images which are not related by any focal event, many researchers do not appear to ask precisely for a single incident. In fact, initial researchers in the field noted that some memories were single events, while others appeared more like general impressions of the subjects' lives at that time. Mosak (1958) terms the latter memories "reports" (p. 304) and remarks on their poor visualization quality and lack of details. While Mosak admits that reports can be clinically significant, he suggests that only single-incident memories be interpreted projectively. The finding that single events are more likely to be remembered unpleasantly, while repeated incidents tend to have pleasant affective tones (Hanawalt & Gebhardt, 1965), suggests that an avoidance mechanism may be operating when reports, or repeated incidents, are described. Thus, it appears that requesting that subjects produce recollections of single, specific incidents is more likely to produce a more consistent, interpretable data base.

Another question which has not been adequately tested in the literature is whether memories of early childhood are more likely to produce useful data than personal memories from later periods. It has generally been asserted by investigators from several theoretical

persuasions that memories from the first 6 to 8 years have the greatest projective value and thus are more likely to provide helpful material, although Bruhn (1984) points out that allowing memories from later ages might be more feasible for elderly subjects. The most common reason given for the belief that early childhood memories provide the best material is the discontinuous nature of memory during that period. As Mosak puts it, "Of the manifold experiences of childhood one only retained at the level of consciousness those few experiences which expressed one's approach to life" (1958, p. 302). In other words, those memories of the early years are so sparse that those which survive into adulthood are assumed to be significant. Supporting this assertion is the finding by Wetzler and Sweeney (1986) that childhood amnesia does indeed exist for ages under 5; that is, when the normal time-related process of forgetting is accounted for, there are still fewer memories recalled from the period before age 5.

Although this interpretation appears logical, it is also true that autobiographical memories from later periods of life have been found to provide information about personality (McAdams, 1982; Carlson, 1980). In addition, Purcell (1956) found no difference in security scores between the earliest memory and the tenth memory in a

series, dating to age range 7 to 11. Therefore, the primacy of early memories over other autobiographical memories has not yet been established.

Finally, the history of autobiographical memory assessment includes a large number of studies with very focused scoring systems and largely disconnected sets of variables. In addition, a number of studies have utilized projective data in a fairly nonempirical manner. Few studies have encouraged the development of objective, comprehensive methods of measuring clinically important constructs, such as object relations. While a few object relations measures utilizing the Rorschach Test in particular have shown promise, the few systems for measuring object relations with autobiographical memory data are in their infancy. Given the ease and less intrusive nature of this technique, the need for additional research into already existing and new autobiographical memory measures of object relations appears significant.

Hypotheses

The present study sought first to demonstrate support for the validity of the CEMSS Level of Object Relations measure by comparing it to the Bell Object Relations Inventory, an instrument which measures object relations through persons' reports of how they experience

themselves in relationships with others (Bell, Billington, & Becker, 1986). Groups of university students were asked to provide written descriptions of specific, single events which occurred during their early childhood, late childhood, or adolescence. Each subject completed six memories, two from each time period. The memories were rated according to the procedure outlined for the CEMSS Level of Object Relations measure and compared to the students' scores on the five scales of the Bell Object Relations Inventory: Alienation, Insecure Attachment, Egocentricity, Social Incompetence, and the total number of items endorsed in a pathological direction. It was anticipated that subjects' overall scores (i.e., the average across six memories) on the CEMSS Object Relations measure would significantly and negatively correlate with all five scales of the Bell Object Relations Inventory.

The inclusion of memories from different time periods allowed for an investigation of the necessity of using early childhood memories to assess a person's level of object relations, as opposed to gathering later autobiographical memories. Although most work has been done in the area of early memories, often earliest memories, and there is theoretical support and empirical evidence indicating that early memories are unique and important

(Mosak, 1958; Bruhn, 1984; Wetzler & Sweeney, 1986), studies of later memories (McAdams, 1982; Carlson, 1980) have indicated that certain later memories may offer important information as well. For these reasons, it was expected that the CEMSS Object Relations scores from early childhood, late childhood, and adolescent memories would all significantly correlate in a negative direction with Bell Object Relations Inventory scores, but that the scores from early childhood memories would produce the strongest correlations.

CHAPTER III

METHOD

Subjects

The subjects for this study were 118 undergraduate university students, 60 female and 58 male. All were attending a Roman Catholic university in a large midwestern city. In exchange for volunteering for the study, most of the students received extra credit for a psychology course. One subject, a male whose Bell Object Relations Inventory protocol contained too many double responses, was eliminated from the study. The remaining 117 subjects ranged in age from 17 to 38, with a mean age of 19.9 years. Ninety-eight percent of the sample had never been married, and 76% were White, 13% Asian, 6% Black, and 5% Hispanic.

Procedure

The subjects were assembled in groups and told that the study involved an examination of people's memories of events in their lives and their interactions with others. After signing a consent form, they completed a demographic questionnaire requesting their gender, age, race, and marital status. The subjects then wrote six detailed

descriptions of events occurring earlier in their lives: two from early childhood, two from late childhood, and two from adolescence. Counterbalancing of memories was done so that possible order effects could be examined; that is, one group of subjects completed early childhood memories first, then those from late childhood, and finally descriptions from adolescence, while another group wrote first about their late childhood, then about their early childhood, and then about adolescence, etc. Six counterbalanced groups were formed, with nearly equal numbers of subjects in each group. Finally, the subjects completed the Bell Object Relations Inventory.

Memory Descriptions and Scoring

Memory Questionnaires. The subjects were asked to provide two especially vivid memories from each of three time periods in their lives: early childhood (under age 7), late childhood (age 7 to 12), and adolescence (age 13 to 17). The subjects were directed to choose memories of specific, one-time events rather than recurring incidents, in order to increase the significance of the events described, and to describe events which they themselves remembered, not incidents that were told to them but which they did not actually recall. They were instructed to write about their memories as richly as

possible, including what happened, who was involved, how the subject felt, and how old the subject was at the time of the event. (See Appendix A.)

Memory Scoring System for Level of Object Relations. All memories were scored for level of object relations according to the Comprehensive Early Memory Scoring System (CEMSS; Last, 1983; see Appendix B). The CEMSS assesses five object relations dimensions (Perception of Others, Perception of Self, Perception of Environment, Individual Distinctiveness, and Degree of Interpersonal Contact) on rating scales consisting of three points but permitting additional gradations (e.g., a rating of 2.5 rather than 2 or 3). These ratings are then combined into a total Level of Object Relations score. Last and Bruhn (1983) determined interjudge reliability to be 93% in their original analysis of 48 CEMSS items, with a reliability range of 64% to 100%. No reliability figures specific to the CEMSS Object Relations scale were published in that study.

Following the procedure advocated by Last and Bruhn (1983), two raters independently scored the object relations dimensions, with disagreements resolved through consensus. In the present study, overall pre-consensus reliability equalled 71%, with reliabilities for each of

the five dimensions ranging from 61% to 78% and those for each of the six memories ranging from 69% to 73%.

The Level of Object Relations scores from the two memories in each time period were averaged to produce a single Level of Object Relations score for each time period; additionally, an average of all six memory scores provided an overall Level of Object Relations for each person. The two adolescent memories of one male subject were missing due to his having failed to complete them, and one earliest memory of a female subject was considered unscorable. In addition, one dimension from one memory from each of four subjects was unscorable; these included Perception of Others scores from two early childhood memories and Degree of Interpersonal Contact scores from an early childhood memory and an adolescent memory. The data from these subjects were analyzed somewhat differently than the other subjects' data; that is, missing individual dimension scores were prorated from the other dimension scores from that memory, as suggested by Last (1983), scores representing a particular time period were either missing or computed using one memory instead of two, and the overall level of object relations scores were computed using only four or five memories rather than six.

Bell Object Relations Inventory

The Bell Object Relations Inventory (BORI; Bell, Billington, & Becker, 1986; Bell, 1988; see Appendix C) is a 45-item, true-false self-report measure of object relations which asks subjects to reveal their recent pattern of relationships and social interactions, sense of impact on others, and response to others' behavior. According to Bell, Billington, and Becker's (1986) report of two unpublished papers by Bell, Metcalf, and Ryan, the BORI was developed from patients' descriptions of their experience of relationships and their characteristic patterns of relating. The original BORI scale was composed of 55 items and produced a single object relations scale. Because of theoretical suggestions that object relations could be a multidimensional construct, Bell, Billington, and Becker (1986) collected BORI scores from 60 high-functioning, 145 average-functioning and 193 low-functioning adults. Those scores were then factor analyzed and yielded four subscales: Alienation (ALN), Insecure Attachment (IA), Egocentricity (EGC), and Social Incompetence (SI). Ten of the original 55 items were removed due to low communality or low factor loadings. Each of the remaining items loaded .28 or higher on one of the four factors. An oblique factor rotation was selected over an orthogonal rotation because of the

theoretical premise that the various components of object relations are interrelated. This selection resulted in 3% more of the variance being accounted for, higher loadings for several items, and increased correlations among factors. The total eigenvalue of 12.92 accounted for 28.7% of the variance. When factor loadings from a new sample of 131 psychiatric inpatients and 482 university undergraduates were compared with those from the original factor analysis study, strong similarity coefficients (.97, .90, .84, .93) and Pearson correlations (.98, .96, .87, .97) between the corresponding factor scores for each subject were found.

For each of the four factors, Cronbach's alpha and Spearman-Brown split-half reliability coefficients have been found to equal the following: ALN = .90, .90; IA = .82, .81; EGC = .78, .78; and SI = .79, .82. Bell (1988) reports that test-retest reliability in both clinical and nonclinical populations over periods of two to eight weeks has been found to be adequate.

Bell, Billington, and Becker (1986) also found that BORI factor scores did not correlate significantly with age, gender, or social desirability. In the same study, the Egocentricity factor was found to correlate moderately strongly with Ryan Object Relations Scale scores derived from early memories. Studies of the earlier,

pre-factor-analyzed version of the BORI had found positive correlations between pathological BORI scores and neuroticism and depression and negative correlations for social extroversion and family attachment (Miripol, 1982, cited in Bell, Billington, & Becker, 1986). Pathological scores have also been associated with ambivalence, need gratification, narcissistic gratification, and low self-esteem (Randolph, 1985) and with bulimia (Becker, 1987). Good object relations have been related to object constancy (Randolph, 1985), and a positive change in object relations has been associated with fewer depressive symptoms and improved overall level of functioning (Engelman, 1985). BORI scale scores have not been found to correlate highly with overall symptom scales such as the Brief Psychiatric Rating Scale and the Global Assessment Form (Bell, Billington, & Becker, 1986), which the authors interpret as indicating that the BORI measures something other than general symptomatology.

In Bell, Billington, and Becker's (1986) study, schizophrenic subjects had been expected to demonstrate more pathological object relations on the BORI than other diagnostic groups; instead, their Insecure Attachment scores were lower than even some nonclinical groups, and their scores on other scales were often less pathological

than clinical groups composed of persons with major affective disorders, schizoaffective disorders, or severe personality disorders. Thus, it appears that the object relations of schizophrenics may not be adequately explained by this instrument. However, the ability of the BORI to pick up the interpersonal dysfunction expressed by those carrying a borderline personality disorder diagnosis has been demonstrated and supports the idea that the BORI is indeed able to shed light on individuals' levels of object relations (Bell, Billington, & Becker, 1986). This conclusion is further supported by the same authors' finding of generally significant differences between the factor scores of high-functioning, community active adults and persons with poorer levels of functioning and by the tendency of college students to demonstrate somewhat more pathological object relations than the high-functioning group but generally better levels of object relations than those with psychiatric diagnoses.

Bell Object Relations Inventory scores can be obtained using either of two methods: a computer-scored system which generates exact factor scores and a hand-scored system which approximates those scores generated by a computer. While scores from the hand-scoring method correlate highly with computer-generated scores,

the correlation among hand-scored factors increases as the level of pathology decreases. For this reason, Billington and Bell (1985) particularly recommend use of the computer-scoring system in studies of nonclinical populations. Their recommendation was followed in the present study.

Within the computer-scoring system, there are several options available for dealing with missing data, including ignoring those items, treating them as either pathological or nonpathological, and prorating them on the basis of the overall scores for the scales to which they contribute. In the present study, one subject failed to complete one item on the BORI. It was decided to prorate that item on the notion that the subject's overall object relations functioning would then be most accurately reflected.

Since the BORI is designed to provide information about different aspects of object relations and since the four scales are derived from factor analysis, an overall or sum score is not available. However, solutions to this problem have been devised by prior researchers. In a personal communication (March 6, 1989), M. D. Bell described several methods of obtaining a single object relations score on the BORI: using only one factor scale that may be most appropriate to the researcher's

population, constructing a maladjustment index from the sum of T-scores, categorizing subjects through the use of cut-off scores, and summing the number of items endorsed in a pathological direction. It was decided that the latter approach would provide the most information and be most appropriate for the present study. Accordingly, in addition to the factor scores generated by the microcomputer scoring system, the total number of object relations items endorsed in a pathological direction was computed for each individual and subjected to similar analyses.

CHAPTER IV

RESULTS

Preliminary Analyses

Means, standard deviations, and ranges for each of the BORI factors and for the total number of items endorsed in a pathological direction are presented in Table 1. Scores for the four factors are comparable to norms for a nonpathological sample that were generated by Bell (1987). Thus, the range of scores appeared adequate for testing the hypotheses of the present study.

Oneway analyses of variance were performed in order to investigate any effects of the order of autobiographical memory administration on the five BORI variables or on four CEMSS object relations variables: the average level of object relations for each of the three time periods, early childhood, late childhood, and adolescence, and the level of object relations averaged across all six memories. There were no significant differences among the six memory order groups for BORI scores of Alienation, $F(5, 116) = .64, p > .60$, Insecure Attachment, $F(5, 116) = .22, p > .90$, Egocentricity, $F(5, 116) = 1.07, p > .35$, or Social Incompetence,

TABLE 1
Means, Standard Deviations, and Ranges of
Bell Object Relations Inventory Scores.

	Mean	SD	Range
Alienation	-.28	.58	-1.02 - +1.73
Insecure Attachment	.07	.76	-1.17 - +2.30
Egocentricity	-.21	.61	-.94 - +1.97
Social Incompetence	-.10	.78	-1.26 - +2.00
Total Number of Pathological Responses	10.92	5.91	1 - 29

$F(5, 116) = 1.05$, $p > .35$, or for the number of pathological responses on the BORI, $F(5, 116) = .46$, $p > .80$. Likewise, no significant differences among memory order groups were found for scores from late childhood memories, $F(5, 116) = 1.13$, $p > .30$, or adolescent memories, $F(5, 116) = .71$, $p > .60$, nor for memory object relations scores averaged across the three time periods, $F(5, 116) = 1.12$, $p > .35$. However, contrary to expectation, a significant difference was found for object relations scores from earliest memories, $F(5, 116) = 2.43$, $p < .05$. While a Scheffe multiple range test of CEMSS OR scores from early memory data revealed no significant differences among groups, a Student-Newman-Keuls multiple range test revealed that scores from the group of subjects which completed adolescent memories first, then those from early childhood, and finally late childhood memories were significantly higher than those from the group whose subjects completed their memories in the following order: late, adolescent, early. The means, standard deviations, and ranges of CEMSS OR scores for the six memory order groups are presented in Table 2.

A memory order by gender analysis of variance revealed no significant interaction for the early childhood memory CEMSS object relations score, $F(5, 114) = .138$,

TABLE 2

Means, Standard Deviations, and Ranges of CEMSS
Object Relations Scores for Memory Order Groups

		Memory Time Period			
		Early	Late	Adol	Avg
ELA	Mean	11.30	12.41	11.87	11.85
	SD	1.58	1.39	1.42	1.07
	Range	8 - 14.5	10 - 14.5	8.5 - 14.3	10.3 - 14.2
LAE	Mean	10.67	11.66	11.95	11.43
	SD	1.25	1.70	1.39	.91
	Range	8.5 - 13.5	8 - 14.5	9.3 - 14.5	10 - 13.5
AEL	Mean	12.11	11.71	12.04	11.95
	SD	1.52	1.82	1.56	1.26
	Range	9.8 - 14.5	7 - 14.3	8.3 - 14.5	8.6 - 14.1
LEA	Mean	11.13	11.71	12.55	11.80
	SD	.81	1.68	1.46	.96
	Range	9.8 - 13	9 - 14.3	9.5 - 14.5	10.2 - 13.3
EAL	Mean	11.01	12.25	12.10	11.79
	SD	1.17	1.46	1.44	.73
	Range	8.3 - 13	9 - 15	9 - 14.3	10.5 - 13.5
ALE	Mean	11.12	11.41	11.63	11.39
	SD	1.59	1.60	2.11	.82
	Range	8.8 - 14.8	7 - 14	6.5 - 14.3	9.5 - 12.8

Note: Group abbreviations are read as follows:

E = Early Childhood, L = Late Childhood, A = Adolescence.
Order of letters denotes order in which memories were
written.

$p > .90$. The interaction of race and memory order was unable to be determined due to the presence of empty cells. However, an examination of demographic data for the two memory order groups that were found to be significantly different from each other on the early childhood memory CEMSS OR scores revealed that the Late/Adol/Early group included three Blacks but no Hispanics, while the Adol/Early/Late group included four Hispanics but no Blacks. In addition, the Late/Adol/Early group was found to be more diverse in terms of age, and, on the average, older, than the other group. Demographic data for the two differing memory order groups are presented in Table 3.

Despite the finding of no significant differences among memory order groups using the stringent Scheffe multiple range test, the presence of a difference using the more liberal Student-Newman-Keuls test and the appearance of demographic differences between the two differing groups suggests caution in the testing of hypotheses for this study. Therefore, it appears judicious to first analyze the data from the entire sample and then explore the impact of the two differing groups by conducting the same analyses while excluding data from each group. If similar results are obtained, it will be deduced that the groups were not so different as to

TABLE 3

Gender, Race, Age, and Marital Status
of Two Memory Order Groups

	Memory Order Groups	
	Late/Adol/Early	Adol/Early/Late
Gender		
Males	8	9
Females	12	10
Race		
Asians	2	2
Blacks	3	0
Hispanics	0	4
Whites	15	13
Age		
Mean	21.1	19.6
SD	5.0	1.5
Range	17 - 38	18 - 23
Marital Status		
Never Married	19	19
Divorced	1	0

inhibit the testing of the study's hypotheses; if the results are different, possible explanations for the difference will be discussed.

Relationship Between Object Relations Measures

The first hypothesis for the present study anticipated that the overall, across-all-memories score from the CEMSS measure of object relations would significantly and negatively correlate with scores on the BORI instrument. To test that hypothesis, Pearson correlations (with one-tailed probability levels because of clear expectations as to the direction of the effects) were performed between that score and each of the five BORI scores. The first column in Table 4 presents these correlations for the entire sample and for the subsamples that excluded the two differing memory order groups. Analysis of the entire sample revealed a low but significant negative correlation between the CEMSS Object Relations score and the total number of items endorsed in a pathological direction on the BORI ($r = -.18$) and a trend toward a low negative correlation for the Social Incompetence factor ($r = -.16$). Correlations between the CEMSS overall score and the other BORI scores were not significant. From this analysis, then, one can conclude

TABLE 4

Pearson Correlations Between CEMSS Object
Relations Scores and Bell Object Relations Scores

BORI Scores	CEMSS Scores for Memory Time Periods			
	Avg	Early	Late	Adol
Alienation	-.14	-.17*	-.06	-.04
	-.11	-.18*	-.05	.00
	-.01	-.09	.03	.03
Insecure Attachment	-.11	-.14	-.06	-.02
	-.07	-.13	-.09	.07
	-.04	-.13	.02	.02
Egocentricity	-.05	-.04	-.04	-.01
	-.03	-.04	-.08	.05
	-.01	-.07	-.00	.05
Social Incompetence	-.16*	-.21**	-.07	-.04
	-.08	-.16	-.09	.07
	-.04	-.17*	.06	-.00
Number of Pathological Responses	-.18*	-.23**	-.09	-.04
	-.14	-.21*	-.12	.05
	-.05	-.19*	.04	.03

Note: First row in each cell refers to data from entire sample, second row to data from sample excluding Late/Adol/Early group, and third row to data from sample excluding Adol/Early/Late group. All probability levels are one-tailed.

* $p < .05$ ** $p < .01$

that only a minimal relationship exists between the BORI measure and the overall CEMSS OR scores.

When the Late/Adol/Early memory order group and the Adol/Early/Late group were separately excluded from the analysis, no significant correlations emerged between the overall CEMSS OR score and the BORI scores. Thus, the impact of each group was to increase the correlation between the measures.

In summary, there appears to be little, if any, relationship between the Bell Object Relations Inventory and the CEMSS measure of object relations when the latter is averaged across memories from different time periods.

Time Period Differences in Object Relations Measurement

The second hypothesis for the present study suggested that object relations data measured from memories of different time periods would correlate significantly with object relations scores from the BORI but that data from early memories would correlate most strongly. Pearson correlations between the the three CEMSS time period object relations scores and the five BORI scores, for the entire sample and for that sample minus the scores from the two differing memory order groups, are presented in columns 2 through 4 of Table 4. As can be seen, none of the correlations for the late

childhood and adolescent memories are significant, either for the entire sample or in the two subsample analyses. For the early childhood memories, three of the five correlations were significant for the entire sample, with that number dropping to two significant correlations for the subsample analyses. For all samples, the number of BORI items endorsed in a pathological direction attained the strongest correlation. In addition, both the Social Incompetence scale and the Alienation scale established a significant correlation with the early memory object relations scores, in the analysis using the entire sample and in one of the two subsample analyses.

Repeated measures analyses of variance were performed in order to determine if significant differences among the three memory time period scores existed. A repeated measures multivariate analysis of variance revealed the presence of a significant difference among the three time periods, $F(2, 114) = 9.79$, $p < .001$. Univariate analyses of variance revealed significant differences between early memory scores and those from late childhood, $F(1, 115) = 11.33$, $p = .001$, and between early memory scores and those from adolescence, $F(1, 115) = 18.32$, $p < .001$. No significant differences were found between late childhood and adolescent scores, $F(1, 115) = .64$, $p > .40$. Finally, a significant linear relationship

was found for scores from early childhood ($M = 11.22$), late childhood ($M = 11.87$), and adolescent memories ($M = 12.02$), $F(1,115) = 18.32$, $p < .001$.

Thus, both correlational analyses and analyses of variance indicate differences between object relations scores from early memories and those from later memories. Contrary to expectations, late childhood and adolescent memories did not yield object relations data that corresponded to BORI scales. In addition, only some BORI scales were correlated with scores from the early memories, and those correlations tended to be low and affected by the presence or absence of certain memory order groups. Finally, object relations scores from memories were found to progress linearly across time; that is, the object relations scores of early childhood memories were significantly lower than those of the other types of memories, with adolescent memory object relations levels displaying a nonsignificant tendency to be higher than those of late childhood memories.

Exploratory Analyses

Although the hypotheses of the present study pertained only to an overall CEMSS Level of Object Relations score, that score was obtained by adding together the scores of several dimensions. Given the

uneven and minimal results obtained for the two hypotheses of this study, it appears possible that the different dimensions contributed differentially to the overall level of object relations score and thus to its relationship with the five BORI scales. For this reason, an exploratory examination of the correlation between the BORI scales and the five dimensions of the CEMSS OR scale was conducted. As in previous analyses, these correlations included both the entire sample and two subsamples composed of the entire sample minus the two memory order groups which were found to be significantly different from each other in the preliminary analyses of this study.

Pearson correlation matrices for the three samples are presented in Tables 5, 6, 7, and 8. As can be seen, very few significant correlations were obtained, especially for late childhood and adolescent data. The dimension of Degree of Interpersonal Interaction emerged as somewhat superior to the other CEMSS OR dimensions, both overall and for early memories, in that low to moderately strong correlations in the expected direction were obtained for three of the five BORI scales: Social Incompetence ($r = -.29$, overall score; $r = -.25$, early memories; $r = -.16$, late childhood memories), Alienation ($r = -.20$, overall score; $r = -.26$, early memories;

TABLE 5

Pearson Correlations Between Bell Object Relations
Inventory Scores and Average Memory CEMSS
Object Relations Dimension Scores

CEMSS Dimensions	BORI Scales				
	ALN	IA	EGC	SI	TOTAL
Perception/ Others	-.13	-.12	-.03	-.07	-.13
	-.10	-.08	-.00	-.03	-.09
	-.05	-.04	.03	.01	-.02
Perception/ Self	-.09	-.19*	-.01	-.04	-.15*
	-.05	-.15	.01	.02	-.11
	.02	-.13	.01	.05	-.05
Perception/ Environment	.04	-.07	-.01	-.01	-.03
	.09	.03	.08	.13	.09
	.17*	-.05	-.02	.07	.04
Individual Distinctive	-.10	-.00	-.04	-.15*	-.11
	-.11	-.03	-.07	-.21*	-.16
	-.11	.04	-.02	-.08	-.06
Interpersonal Interaction	-.20*	.02	-.06	-.29***	-.18*
	-.23*	-.03	-.16	-.25**	-.23*
	-.10	.09	-.01	-.23*	-.08

Note: "TOTAL" refers to the total number of items endorsed in a pathological direction. First row in each cell refers to data from entire sample, second row to data from sample excluding Late/Adol/Early group, and third row to data from sample excluding Adol/Early/Late group. All probability levels are one-tailed.

* $p < .05$ ** $p < .01$ *** $p < .001$

TABLE 6

Pearson Correlations Between Bell Object Relations
Inventory Scores and Early Childhood Memory CEMSS
Object Relations Dimension Scores

CEMSS Dimensions	BORI Scales				
	ALN	IA	EGC	SI	TOTAL
Perception/ Others	-.09	-.18*	.02	-.10	-.15
	-.08	-.18*	.02	-.04	-.13
	-.06	-.17*	.02	-.08	-.13
Perception/ Self	-.12	-.17*	-.02	-.15	-.19*
	-.12	-.16	-.01	-.13	-.18*
	-.07	-.14	-.04	-.09	-.15
Perception/ Environment	.07	-.06	-.06	.05	-.03
	.13	.01	.02	.18*	.09
	.15	-.07	-.12	.10	-.01
Individual Distinctive	-.15	-.03	-.05	-.27**	-.15*
	-.19*	-.05	-.07	-.30**	-.20*
	-.15	.00	-.05	-.27**	-.14
Interpersonal Interaction	-.26**	.01	.00	-.25**	-.18*
	-.34***	-.02	-.10	-.27**	-.25**
	-.19*	.01	-.01	-.23**	-.16

Note: "TOTAL" refers to the total number of items endorsed in a pathological direction. First row in each cell refers to data from entire sample, second row to data from sample excluding Late/Adol/Early group, and third row to data from sample excluding Adol/Early/Late group. All probability levels are one-tailed.

* $p < .05$ ** $p < .01$ *** $p < .001$

TABLE 7

Pearson Correlations Between Bell Object Relations
Inventory Scores and Late Childhood Memory
CEMSS Object Relations Dimension Scores

CEMSS Dimensions	BORI Scales				
	ALN	IA	EGC	SI	TOTAL
Perception/ Others	-.06	.01	-.04	-.03	-.03
	-.04	.02	-.03	-.05	-.04
	-.02	.09	-.01	.08	.07
Perception/ Self	-.08	-.12	-.07	.01	-.11
	-.06	-.12	-.08	.01	-.11
	-.01	-.07	-.07	.07	-.03
Perception/ Environment	-.06	-.05	.04	-.03	-.05
	-.05	-.03	.05	-.04	-.05
	.00	-.04	-.00	.03	-.00
Individual Distinctive	-.01	-.03	.03	-.03	-.03
	-.02	-.10	-.04	-.09	-.10
	.01	.00	.11	.05	.04
Interpersonal Interaction	.01	-.00	-.09	-.16*	-.07
	.00	-.05	-.16	-.14	-.11
	.12	.11	-.00	-.03	.09

Note: "TOTAL" refers to the total number of items endorsed in a pathological direction. First row of each cell refers to data from entire sample, second row to data from sample excluding Late/Adol/Early group, and third row to data from sample excluding Adol/Early/Late group. All probability levels are one-tailed.

* $p < .05$

TABLE 8

Pearson Correlations Between Bell Object Relations
Inventory Scores and Adolescent Memory CEMSS
Object Relations Dimension Scores

CEMSS Dimensions	BORI Scales				
	ALN	IA	EGC	SI	TOTAL
Perception/ Others	-.13	-.08	-.02	-.06	-.10
	-.12	-.01	.04	-.04	-.05
	-.07	-.02	.07	-.05	-.02
Perception/ Self	.07	-.04	.07	.08	.05
	.13	.04	.12	.21*	.14
	.14	-.02	.13	.12	.11
Perception/ Environment	.08	-.02	.01	-.03	.01
	.11	.08	.08	.11	.13
	.18*	.00	.07	.00	.08
Individual Distinctive	-.04	.05	-.07	-.03	-.04
	-.03	.08	-.04	-.05	-.04
	-.06	.07	-.10	.03	-.02
Interpersonal Interaction	-.15*	.05	-.02	-.10	-.07
	-.11	.05	-.00	-.00	-.03
	-.14	.04	-.03	-.11	-.07

Note: "TOTAL" refers to the total number of items endorsed in a pathological direction. First row of each cell refers to data from entire sample, second row to data from sample excluding Late/Adol/Early group, and third row to data from sample excluding Adol/Early/Late group. All probability levels are one-tailed.

* $p \leq .05$

$r = -.15$, adolescent memories), and Total Pathological Responses ($r = -.18$, overall score and early memories). The Degree of Individual Distinctiveness dimension also appeared to predict relationships with the BORI better than other dimensions, at least when correlated with the Social Incompetence scale ($r = -.27$, early memories; $r = -.15$, overall) or, to some degree, with Total Pathological Responses ($r = -.15$, early memories). The Perception of Self dimension showed somewhat weaker predictive qualities: Insecure Attachment ($r = -.19$, overall; $r = -.17$, early memories) and Total Pathological Responses ($r = -.15$, overall; $r = -.19$, early memories). Finally, Perception of Others demonstrated one significant correlation with Insecure Attachment ($r = -.18$, early memories).

As can be seen in Tables 5, 6, 7, and 8, the inclusion or exclusion of memory order groups Late/Adol/Early and Adol/Early/Late did not, over all, exert a strong influence upon the correlations achieved. Although occasionally expected correlations were strengthened by the exclusion of these groups (e.g., Interpersonal Interaction correlations with Alienation and Total Pathological Responses increased from $-.26$ to $-.34$ and from $-.18$ to $-.25$, respectively, when the Late/Adol/Early group was excluded from the analysis of early memory data), at

times the removal of a group functioned to weaken expected results considerably. For example, the correlation between Perception of Environment and Alienation became significant and positive for overall scores ($r = .17$) and for adolescent scores ($r = .18$) when the Adol/Early/Late group scores were removed. In addition, the correlation between Perception of Self and Social Incompetence became significant and positive for adolescent scores ($r = .21$) when the Late/Adol/Early group scores were excluded from that analysis.

Thus, the earlier results supporting the superiority of early childhood memories over later memories were upheld in these further analyses. The BORI factor of Social Incompetence emerged as the most likely BORI scale to correspond with the CEMSS OR measure, although the total number of items endorsed in a pathological direction continued to show some strength. The CEMSS OR dimension of Degree of Interpersonal Interaction appeared stronger than the other dimensions when compared to certain BORI scales, while Individual Distinctiveness also appeared relatively strong, particularly when correlated with the Social Incompetence BORI factor. The two memory order groups were somewhat more likely to exert an effect when excluded from analyses, but their influence could not be ascertained to have any meaningful pattern.

In another series of exploratory analyses, gender by race analyses of variance were performed in order to investigate any unexpected influences of those demographic variables. No significant main effects or interactions for the four CEMSS object relations variables or for the BORI Alienation and Social Incompetence factors were found. However, a main effect for gender was found for the Insecure Attachment factor, $F(1, 116) = 3.71$, $p < .01$, with women scoring higher in insecure attachment ($M = .26$) than men ($M = -.12$). Main effects for race were found for Insecure Attachment, $F(3, 116) = 2.57$, $p < .01$, for Egocentricity, $F(3, 116) = 1.41$, $p < .01$, and for the number of pathological responses on the BORI, $F(3, 116) = 4.53$, $p < .01$. Student-Newman-Keuls multiple range tests revealed that both Asian and Hispanic subjects scored significantly higher on Insecure Attachment than White subjects, that Asians scored significantly higher on the Egocentricity factor than Whites, and that Asians endorsed significantly more items in a pathological direction than Whites. Table 9 presents the means, standard deviations, and ranges of BORI scores for the different racial groups. No significant interaction effect between race and gender was found for any of the variables.

TABLE 9

Means and Standard Deviations of Bell Object
Relations Inventory Scores for Racial Groups

	Asians	Blacks	Hispanics	Whites
Alienation				
Mean	-.13	-.11	.03	-.34
SD	.66	.56	.70	.56
Insecure Attachment				
Mean	.60	-.17	.71	-.04
SD	.98	.43	.34	.71
Egocentricity				
Mean	.16	-.03	.17	-.31
SD	.74	.64	.59	.55
Social Incompetence				
Mean	-.09	-.01	.06	-.12
SD	.70	.75	.88	.80
Number of Pathological Responses				
Mean	14.67	11.43	15.83	9.92
SD	7.67	4.72	4.36	5.39

CHAPTER V

DISCUSSION

Relationship Between Object Relations Measures

The first hypothesis of the present study stated that subjects' overall, or average, scores on the CEMSS Object Relations measure would be significantly and negatively correlated with the five scales of the Bell Object Relations Inventory: Alienation, Insecure Attachment, Egocentricity, Social Incompetence, and the total number of items endorsed in a pathological direction. This hypothesis was only partially supported. Significant correlations in the expected direction were found for the total number of pathological responses and for the Social Incompetence factor, but the low correlations indicated that very little of the variance was explained by these variables. In addition, CEMSS Object Relations scores did not correlate significantly with any of the other BORI scales.

There are several possible explanations for this finding. First of all, it appears that order effects can be ruled out since there was no order effect for the overall memory score. An order effect was found for the

score from early memories, but since it is difficult to interpret and was not significant at the confidence level of the conservative Scheffe multiple range test, and since only two of the six memory order groups were found to be significantly different at the confidence level of the Student-Newman-Keuls multiple range test, this order effect does not appear to be of major concern. It does raise speculation, however, about the reasons for the differences in the early memory CEMSS object relations scores of the two groups. The finding that the group receiving significantly higher CEMSS object relations scores contained some Hispanics rather than Black subjects, who were present instead in the group earning lower CEMSS object relations scores, is inconsistent with other racial differences found in this study; that is, Hispanics were more likely to score higher on one of the BORI scales and thus would be expected to have scored lower on the CEMSS object relations measure. However, the variable of age may be more important, since the group receiving lower CEMSS object relations scores on early memories was much more varied in age than the other group. It would be advisable for future research to address the question of age effects on the CEMSS object relations measure by involving persons from across the life span.

To return to the question of how the differing memory order groups may have influenced the poor association found between the BORI and CEMSS measures, it does appear, given the finding of nonsignificant correlations obtained by excluding data from the two groups found to be different from each other, that both groups had the effect of slightly strengthening the relationship between the measures, rather than weakening it. Thus, the differences between the two groups cannot be seen to explain why the first hypothesis was only partially supported. Therefore, additional explanations must be considered.

Since the comparison of the two measures was intended as a demonstration of support for the validation of the CEMSS Object Relations measure, one possibility is that the CEMSS scale is not a valid measure of one's level of object relations. If indeed the BORI is a valid measure of object relations, the very minimal correlations with the CEMSS measure would suggest that the CEMSS instrument does not measure object relations. It may be, however, that the BORI is not an adequate criterion measure. The BORI factors were developed within a study using subjects of varying levels of psychopathology, including two nonclinical groups, and have been shown not to be related to variables such as age, gender, and

social desirability. In addition, convergent validity has been demonstrated with some measures of psychopathology and several variables reflecting relationship readiness, such as social extroversion and family attachment (Miripol, 1982, cited in Bell, Billington, & Becker, 1986) and narcissistic gratification and need gratification (Randolph, 1985). However, inconsistent patterns of association with measures of psychopathology, the finding that schizophrenics at times have demonstrated better object relations on this scale than other, apparently less disturbed, groups (Bell, Billington, & Becker, 1986), and the lack of relationship found between the Ryan Object Relations Scale and several BORI factors (Bell, Billington, & Becker, 1986) indicate that the BORI may have flaws. In addition, the finding of the present study that race affects subjects' BORI scores is of concern and will be discussed more fully later in this paper. It would appear, for these reasons, that additional research on the BORI is badly needed. One strong limitation of the present study is the lack of other criterion measures for additional comparison. This lack, and the use of the BORI itself despite its flaws, reflect the disturbing dearth of well-validated object relations instruments within the literature. Renewed attention to well-designed validity studies for the BORI and other

instruments appears to be the greatest need at this time.

Given the flaws of the BORI, then, it is possible that the CEMSS instrument is not completely invalid as a measure of object relations but merely requires some refinements to make it a more accurate measure. Supporting this idea is the finding of some overall correlation between the measures and a differential pattern of significant correlations among the five dimensions of the CEMSS Object Relations scale. For example, the dimension of Interpersonal Interaction significantly and negatively correlated with three of the five BORI scales when including all or only early memories, and the only significant correlations for late childhood or adolescent memories occurred for that dimension. The dimension of Perception of Environment achieved no significant correlations with the BORI scales, while the other dimensions correlated significantly, although generally very weakly, with one to three of the BORI scales. Thus, the generally poor correlations between the CEMSS and BORI measures may have been due partly to deficiencies in the CEMSS scale dimensions.

Moreover, variations in preconsensus interrater reliability were found among the five CEMSS object relations dimensions. For example, interrater reliability for the dimension of Perception of Others equalled 78% and

reliability of three other dimensions ranged from 70-75%, but only 61% of Individual Distinctiveness ratings were in agreement prior to consensus. While consensus scoring erased the differences from the statistical analyses, the low reliability coefficient for the Individual Distinctiveness dimension in particular indicates some lack of clarity for that aspect of the scoring system. In addition, comments from the raters indicated that it was difficult for them to feel solidly in agreement on those ratings, because of how the rating points were defined for that dimension. That is, there was considerable confusion about what needed to be present in the memory in order to rate the characters "highly distinctive" as opposed to having "some distinctiveness." One rater tended to rely on certain key descriptive words to make her decision, while the other rater looked for how visually evocative the characters were. It seemed to the raters that this dimension needed an additional rating point which would be scored for memories in which characters were more than simply named but where their individual features were not described to any significant degree.

Additionally, the Perception of Others dimension raised different questions. It was common for both need satisfiers and need frustrators to be present in a memory

or for a single character to both satisfy and frustrate needs within a memory. While the raters attempted to identify which tendency was strongest in the memory, this procedure was not always possible. Reference to a sample scoring sheet prepared by Last (1983) showed that Last's procedure in these situations was to assign a score half-way between the presence of frustrators (score=2) and satisfiers (score=3). Therefore, it was decided to follow Last's procedure in the present study. However, it could be argued that identifying both frustrators and satisfiers in one's environment is a more complex process than simply identifying need satisfiers and represents a more advanced level of object relations. If so, the persons who reported memories with both frustrators and satisfiers present may not have received an appropriate score on that dimension, which conceivably could have affected this study's results. However, since this situation affected the data of only a subset of this study's subjects, it would seem that correction of this problem would have had, at best, only a minor effect on the lack of correlation between the overall CEMSS Object Relations scores and the BORI scores.

Is there, then, another explanation for the lack of support for the first hypothesis? Another possibility is that the Bell Object Relations Inventory measures one

aspect of object relations and that the CEMSS instrument measures an aspect that is related but different. Support for this position can be found in the attempts of researchers to construct multidimensional object relations measures with a number of different subscales (Blatt, Brenneis, Schimek, & Glick, 1976; Burke, Friedman, & Gorlitz, 1988) and in the failure of researchers to find meaningful correlations among object relations measures. The latter is exemplified by Sauer's (1989) failure to find expected correlations among three methods of assessing object relations through the analysis of Rorschach Test responses. While Sauer admitted that characteristics of her sample may have accounted for the lack of relationships found, she also pointed out that the measures, which focused on different elements of Rorschach responses, may simply have been measuring different aspects of object relations. In an unpublished study of differential diagnosis, Gibbons (1985) found that three object relations measures, each utilizing dream or Rorschach material or self-reported behavioral information, predicted Borderline Personality Diagnosis differentially. In addition, Miripol's (1982) unpublished study of nine object relations measures indicated that several different factors underlay those measures

and that the "operational definitions of object relations did not correspond closely with one another" (p. 1260-B).

Seen in the light of these other studies, the general lack of correlation between the CEMSS object relations measure and the BORI is less startling. The BORI relies on subjects' self-reported behavior and conscious attitudes toward the social environment. The CEMSS relies on raters' abilities to pick up subjects' unconscious or preconscious views of themselves and others in the world. It is possible that each measure taps a different but overlapping area within the general construct of object relations. If so, it is important to understand the basis upon which each measure has been constructed and to be sensitive to the possible biases which may underlie its design.

An unexpected finding of the present study can be seen to speak to the issue of bias, that is, the consistent pattern of racial differences on three BORI scales: Insecure Attachment, Egocentricity, and the total number of pathological responses. On each scale, Asians reported social behaviors and expectations that were scored as significantly more pathological than White subjects. On the Insecure Attachment scale, Hispanics also responded in a significantly more pathological manner, according to this instrument, than Whites. That is, White

subjects were fairly consistently rated on the BORI as having healthier levels of object relations than Asian subjects and, less consistently, than Hispanic subjects.

Careful thought suggests several possible explanations for this very unexpected finding. First, it is possible that the subjects in this study were somehow not representative of their racial groups and that this finding would not appear in a study using a different sample of the population. Since no mention of any investigation of possible racial differences on the Bell Object Relations Inventory can be found in the literature, it is difficult to know whether the present subject sample is somehow aberrant. It is notable that careful study of the publications of Bell and his students and colleagues in the area (Billington & Bell, 1985; Bell, Billington, & Becker, 1986; Bell, 1988; Bell, Billington, & Cicchetti, 1988) reveals that subjects' racial groups are not even mentioned, let alone studied systematically. This is obviously an area which badly needs additional research. If the racial differences found in the present study are replicated in other studies, there are several possible implications. Either race is an important determinant of one's level of object relations (causality can be inferred since one's level of object relations cannot affect one's race) or, more likely, the Bell Object

Relations Inventory is not a culture-fair measure. To expand on the latter implication, the BORI may be constructed of items which determine the health or pathology of one's object relations from a perspective which favors certain racial groups. In particular, Whites, who comprise the majority culture in American society, appear to be favored over other groups, especially Asians.

It is also possible that the BORI instrument measures not the degree of pathology in one's object relations but rather the degree of sensitivity one has to these issues. The one gender difference found in the present study could be seen to support that notion; that is, the finding that women tended to report behaviors that represented greater insecure attachment than did the behaviors reported by men could suggest that women are more sensitive to attachment issues and thus are more keenly aware of disruptions in the attachment process. Various theorists and researchers have pointed to gender differences in the importance and perception of attachment (Cowan & Davidson, 1984; Gilligan, 1982; Miller, 1976). Further supporting this interpretation of the Insecure Attachment factor is Bell's (1988) description of high scorers on this scale as "likely to be very sensitive to rejection and easily hurt by others" (p. 7). Bell goes on to say that high-functioning persons were

most likely to obtain elevations on this scale as opposed to other scales of the BORI and that individuals obtaining an elevated score on only this scale may not suffer severe social dysfunction. While a sensitivity to attachment issues is certainly related to object relations, it does not appear synonymous. Additionally, even if sensitivity to attachment issues can be seen as an aspect of object relations, labeling that tendency as "pathological" seems problematic, since one could argue that too much insensitivity to social relations could be just as pathological.

Extending these thoughts to the issue of racial differences found in the present study, it would appear that one could apply the same reasoning to Asians as has been applied to women. That is, Asians and Hispanics may score more pathologically on an Insecure Attachment scale because of an increased sensitivity to their social environments. Research findings (Hofstede, 1980; Triandis et al., 1986) that some Asian and Hispanic groups appear to be more oriented to collectivism than to individualistic behaviors supports this idea. Future studies might obtain interesting results if subjects were classified even more narrowly in terms of culture than they were in the present study, e.g., with consideration of Korean vs. Japanese values and norms.

An explanation along these lines for the finding that Asians scored more pathologically than Whites on the Egocentricity factor and endorsed more items in a pathological direction than Whites is more difficult to formulate. Bell (1988) describes high scores on Egocentricity as representing "mistrust of others' motivation" and "a self-protective and exploitative attitude toward relationships" (p. 7), descriptions which hardly seem consistent with studies of some Asian cultures. Again, it would be interesting to ascertain exactly which Asian cultures were represented in the present study and evaluate those subjects' reports in light of their specific cultural background. It should also be cautioned that the students in the present study do not represent Asian culture but rather a mixture of Asian and contemporary "American" values and expectations. It may be that persons who are dealing with two often disparate value systems develop more problematic object relations than those who are not faced with those contradictions.

It is possible, of course, that not only Bell's instrument but the very definition of object relations itself rest upon assumptions which are rooted in majority White American culture. While this supposition is certainly less likely than the idea that the problem lies within a single instrument, it is possible that the

sense of what comprises a definition of healthy social relations and perceptions of self and other in the world has been influenced by certain cultural values. For example, majority White culture in the United States tends to favor independence and to look down upon a feeling of need for others. While this view is unlikely to affect definitions of healthy object relations as reflecting good differentiation and articulation of objects, it is likely to have some impact upon definitions which emphasize an appropriate level of need for others. Given the findings of the present study, it seems important for object relations researchers and theorists to reflect on the impact of culture upon the object relations definitions and assessment devices they devise.

In general, then, there may be a need for a clearer definition of the object relations construct. The construct was developed from the idea that infants interact with the world around them and actively assimilate information about their social environment. The core of object relations theory is the notion of self- and object-representations which guide individuals and help them comprehend their interactions within the social environment. These representations, then, are what must be assessed by an instrument purporting to measure levels of object relations. The difficulty of

constructing an assessment device which will reproduce in recognizable form the thoughts and expectations, often unconscious, of individual people is obvious at once. Thus, the attempt to measure this phenomenon has taken different forms.

A large number of researchers have based their work on the projection hypothesis that states that an individual will leave an image of his or her representational world upon an unstructured, ambiguous stimulus (Blatt & Lerner, 1983a). Other researchers work from the notion that individuals express their levels of object relations through their everyday social behavior. The latter approach, exemplified by the Bell Object Relations Inventory and by external rating systems of persons' social behavior, can be more certain to collect information that concerns the individual's experience of relationships, but it is likely to miss more unconscious or well-defended conceptions which are even more important in determining the individual's social functioning. Approaches utilizing the projective hypothesis run the risk that their methods rely too strongly on interpretation to be extensively validated. Both approaches seem to have assumed that psychopathology is likely to mirror levels of object relations, but neither appear to have adequately explained the findings that some measures of

psychopathology, generally symptom measures, do not show strong associations with measures of object relations. In addition, utilizing object relations measures in studies of differential diagnosis sometimes leads to the confusing finding that more severely disturbed persons appear higher functioning on measures of object relations (Bell, Billington, & Becker, 1986). It is evident that problems clearly exist with regard to the operationalization of the object relations construct and that more attention needs to be focused on the question of what should be expected to correlate with instruments purporting to measure object relations. Is the definition of object relations based on knowledge about various psychopathological conditions, and, if so, what effect do fluctuations in diagnostic standards have upon the object relations construct? Finally, is the concept of object relations culture-free or are assessment devices at least culture-fair? When problems such as these are not addressed comprehensively and thoughtfully, the entire concept of object relations becomes less reputable and therefore less useful.

Time Period Effect on Memory Object Relations Assessment

The second hypothesis of the present study stated that object relations data measured from memories from

early childhood, late childhood, and adolescence would all significantly and negatively correlate with Bell Object Relations Inventory scores but that early childhood data would provide the strongest correlations. This hypothesis was partially supported. Three of the five BORI scales correlated significantly in the expected direction with CEMSS data scored from early childhood memories. However, no significant correlations were found for either late childhood or adolescent memory data. In addition, significant differences were found between early memory scores and those from both late childhood and adolescence, while there was no significant difference between scores from late childhood and adolescence. Thus, it appears that memories from late childhood and adolescence possess similarly poor abilities to provide helpful object relations information. Finally, CEMSS OR scores were found to follow a significant, linear pattern from early to late childhood to adolescence. This finding suggests that while early memories appear to be the only memories which can yield helpful object relations data, the CEMSS object relations scores they do provide tend to be lower than those from later memories and thus indicate more primitive object relations levels.

What does this mean? It may be that early memories represent more primary, less ego-structured material than

later memories, which are laid down during the years when the ego is better developed. An analogy is the better ability of the Rorschach Test to elicit regressive material than more structured, less ambiguous tests such as the Minnesota Multiphasic Personality Inventory and the Wechsler Adult Intelligence Scale-Revised and even, to a lesser extent, the Thematic Apperception Test. Thus, the early memory, once better validated as a method, may provide an additional opportunity to unearth important clinical information from clients whose defenses resist other methods.

Possible explanations for the low or lack of correlations overall in this study have already been discussed, but the finding that the type of autobiographical memories requested does indeed affect the scores on an object relations measure is a notable result and consistent with several theories of psychological development. Freud (1938) had always considered the first six years of life as the most important determinants of the later personality. Although Adler (1937) differed from Freud in believing early memories to represent basic attitudes toward life that persons possess at the time their memories are elicited, rather than revealing unconscious drives and desires, he was also of the belief that memories of early childhood were the best source of that information,

since memory after the early childhood years tends to be more continuous and thus has less projective value (Bruhn, 1984). The focus of object relations theorists (Lerner & Lerner, 1985; Mahler et al., 1975; Jacobson, 1964; Winnicott, 1953) on the development of self and object representations in the very young child argues for early, rather than later, autobiographical memories to be utilized as assessment devices, although that opinion does not appear to have been explicitly stated. Some general memory research can also be seen as supporting the value of early memories over later autobiographical memories. For example, Linton's (1986) finding that an increase in elapsed time since experience of an event leads to an increase in the recall of memories that are significant, emotionally-laden, frequently rehearsed, and social or self-centered could be an argument in favor of utilizing the earliest possible memories an individual can retrieve.

It is true, however, that several researchers have achieved good results in studies utilizing memories from later in life. McAdams' (1982) finding of correlations between intimacy and power motives and the corresponding intimacy and power themes in memories of peak experiences and, to some extent, great learning experiences seems to indicate that some types of later memories may be useful

projective devices. Since McAdams found weaker correlations for memories identified as merely "satisfying" and no significant correlations for "unpleasant" or "neutral" memories, he argued that the memories most likely to provide accurate personality information are those which the individual perceives as particularly important in his or her life. Likewise, it is possible that Carlson's (1980) finding that judges could indeed predict Jungian personality types from memories of critical incidents of various emotions is dependent upon subjects' perceptions of the incidents they reported as particularly meaningful in their lives. Without that sense of significance, it is possible that the judges would have made less accurate predictions.

Thus, when looked upon within the context of these studies and theoretical formulations, the finding of the present study that early memories seemed better able to produce appropriate object relations material than later memories appears understandable. Although the subjects were instructed to produce "especially vivid" memories from each period of life, there was no direction for them to report memories which held the greatest impact or personal significance. In fact, a reading of subjects' memories from the adolescent period in particular suggests that many incidents were available to the subjects

from that time period, as might be expected. In contrast, several subjects had great difficulty retrieving even one or two memories from under age 7, suggesting that the memories they did retain had some particular significance. In addition, it seemed apparent that many subjects discovered gaps in their early childhood memories and were forced to fill in those gaps with whatever seemed reasonable to them. Thus, these memories in particular seemed less rooted in actual events and more related to individuals' personal representations of themselves and others within the remembered situation. Of course, this hypothesis needs to be tested further. Material from especially significant memories in later time periods could be compared to early memory data to determine whether both provide good object relations information or whether early memories possess some other quality which cannot be found in any later memories.

Summary

The first hypothesis of this study, that a significant relationship would be demonstrated between the Bell Object Relations Inventory and the CEMSS Object Relations scale, was only partially supported. Possible explanations for the low or nonsignificant correlations included the following: 1) the BORI measures the

construct of object relations, but the CEMSS does not, 2) the BORI is an inadequate criterion measure because of flaws in the instrument, 3) the dimensions making up the object relations scale of the CEMSS need refinement in order to produce a better measure of object relations, and 4) the BORI measures some aspect of a more general object relations construct, and the CEMSS measures an aspect that is related but different. The finding of consistent racial differences on the Bell Object Relations Inventory was discussed in terms of possible bias in the construction of that measure and in the theoretical underpinnings of the construct of object relations itself. Studies to evaluate more thoroughly the impact of race upon the BORI and upon other measures that utilize similar definitions of the object relations construct were recommended.

The second hypothesis, that early memory data would most strongly correlate with the BORI but that material from late childhood and adolescent memories would also be related to the BORI, was also partially supported. Late childhood and adolescent memories were not found to provide helpful data with respect to the construct of object relations as defined in this study. However, early childhood memories were significantly more likely to provide material which corresponded to the BORI data. In

addition, a significant inverse linear relationship was found for the three time periods.

The findings regarding the differential usefulness of autobiographical memories were discussed within the context of several psychological theories and the results of other studies utilizing autobiographical memories from different time periods. It was suggested that early childhood memories may have proved especially useful in the present study because their elusive nature made what was recalled from that period especially meaningful for the subject.

The present study also raised questions about how the object relations construct is conceived and assessed. Is the concept of object relations clearly enough defined? Do even those measures which incorporate multiple dimensions of object relations adequately account for all the important aspects of the construct? How culture-specific are the various measures of object relations, especially those which rely strongly on the assessment of social behavior and attitudes? Can the construct of object relations provide significant information on its own, or is it clinically useful only when combined with other psychodiagnostic information?

Consideration of these questions in both the theoretical and empirical realms appears imperative if

individuals' levels of object relations are to be assessed with appropriate understanding of their cultural backgrounds and with enough completeness that that knowledge can be utilized for clinical purposes. The evidence of the present study suggests not that the construct of object relations should be abandoned but rather that greater attention to the deficiencies in its definition and assessment would bring it closer to fulfilling the ultimate purpose of making a therapeutic difference in the lives of distressed individuals.

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APPENDIX A

Memory Questionnaires

On the following pages you are asked to describe your memories of events in your life. Please choose memories of specific, one-time events ("I remember one time..."), not recurring incidents ("I always used to..."). Try to describe events which you remember, not incidents that someone told you about yourself that you don't actually recall.

Choose events which are clear enough in your memory for you to describe as many details as possible:

1. What exactly happened in the event?
2. Who was involved in the event?
3. How did you feel?
4. How old were you when it happened?

Remember, there are no right or wrong memories. We are not concerned with what you remember from your life but rather with the richness of your descriptions. Your purpose is to describe the event as fully as possible, from when your memory begins to when it ends, so that the circumstances, the people involved, the happenings, the thoughts, and the feelings come alive for the reader. Be sure to complete the questionnaires in the order they are presented to you.

APPENDIX B

Comprehensive Early Memory Scoring System

Level of Object Relations Scale

Examine the quality of interpersonal relationships between the subject and others as portrayed in the EM. Classify the EM along one of the four levels. Classification is achieved by adding the scores from the five subcategories. If one category is not scorable, prorate the total score by taking the average of the remaining four subcategories and multiplying by five. If an appropriate score on an individual subcategory seems to fall between two points, use a half-point score.

- Level 1: 5 - 7.5
- Level 2: 8 - 10.5
- Level 3: 11 - 12.5
- Level 4: 13 - 15

A. Perception of Others

1. Others are not present or are on the periphery of the action. Others may be mentioned as an afterthought.
2. Others are present, yet are primarily need frustrators.
3. Others are present, and are primarily need satisfiers.

B. Perception of Self

1. The subject demonstrates no mastery over the environment. He is primarily passive. He is a follower, an observer, a recipient, a victim. He is acted on by the environment.
2. The subject attempts to influence the environment, there is an effort at mastery or control yet success is minimal at best.
3. The subject acts upon the environment. He initiates activity or participates in an activity with others as a full member. Efforts are mainly (though not necessarily exclusively) effective.

C. Perception of Environment

1. The environment is primarily unsupportive or unsafe. It acts to limit, attack or deprive the subject. (If the EM is one in which the subject observes others, rate this dimension in terms of the effect of the environment on the main character. A score of "1" is also given if the subject acts in an aversive manner.)
2. The environment is generally frustrating, yet there are sources (self, others, or circumstances) which function to mitigate the difficulty to varying degrees (e.g., "I got hurt and they took me to the hospital.")
3. The environment is primarily supportive, safe or caring. (The subject may not necessarily appreciate the caring, such as being given medicine.)

D. Individual Distinctiveness

1. Others are poorly defined, vague or unclear. (If there are no others, also score "1".)
2. There is some distinctiveness, yet individuals are not embellished with specific qualities (e.g., motivation, appearance, location, tastes). Also score "2" for an EM where there is group activity without any indication of specific roles.
3. Others are highly distinctive with specific qualities or characteristics. Individuals must be more than just named (e.g., Mom, Bill) to be scored "3".

E. Degree of Interpersonal Contact

1. Subject and others are alone or isolated, with no interaction. (May be observing interaction of others.)
2. There is only moderate interaction portrayed. Interaction is sporadic or momentary. Also includes a series of brief encounters with different individuals.
3. Sustained interaction is reported or clearly implied. (The interaction need not be satisfying.)

APPENDIX C

BORI
(Bell, 1983)

Please answer according to your most recent experiences.
If a statement tends to be true for you, circle T.
If a statement tends to be false for you, circle F.
Please try to answer all questions.

- | | | | |
|---|---|-----|---|
| T | F | 1. | I have at least one stable and satisfying relationship. |
| T | F | 2. | If someone dislikes me, I will always try harder to be nice to that person. |
| T | F | 3. | I would like to be a hermit forever. |
| T | F | 4. | I may withdraw and not speak to anyone for weeks at a time. |
| T | F | 5. | I usually end up hurting those closest to me. |
| T | F | 6. | My people treat me more like a child than an adult. |
| T | F | 7. | If someone whom I have known well goes away, I may miss that person. |
| T | F | 8. | I can deal with disagreements at home without disturbing family relationships. |
| T | F | 9. | I am extremely sensitive to criticism. |
| T | F | 10. | Exercising power over other people is a secret pleasure of mine. |
| T | F | 11. | At times I will do almost anything to get my way. |
| T | F | 12. | When a person close to me is not giving me his or her full attention, I often feel hurt and rejected. |
| T | F | 13. | If I become close with someone and he or she proves untrustworthy, I may hate myself for the way things turned out. |
| T | F | 14. | It is hard for me to get close to anyone. |
| T | F | 15. | My sex life is satisfactory. |
| T | F | 16. | I tend to be what others expect me to be. |
| T | F | 17. | No matter how bad a relationship may get, I will hold on to it. |
| T | F | 18. | I have no influence on anyone around me. |
| T | F | 19. | People do not exist when I do not see them. |
| T | F | 20. | I've been hurt a lot in life. |
| T | F | 21. | I have someone with whom I can share my inner-most feelings and who shares such feelings with me. |

- T F 22. No matter how hard I try to avoid them, the same difficulties crop up in my most important relationships.
- T F 23. I yearn to be completely "at one" with someone.
- T F 24. In relationships, I am not satisfied unless I am with the other person all of the time.
- T F 25. I am a very good judge of other people.
- T F 26. Relationships with people of the opposite sex always turn out the same way with me.
- T F 27. Others frequently try to humiliate me.
- T F 28. I generally rely on others to make my decisions for me.
- T F 29. I am usually sorry that I trusted someone.
- T F 30. When I am angry with someone close to me, I am able to talk it through.
- T F 31. Manipulating others is the best way to get what I want.
- T F 32. I often feel nervous when I am around members of the opposite sex.
- T F 33. I often worry that I will be left out of things.
- T F 34. I feel that I have to please everyone or else they might reject me.
- T F 35. I shut myself up and don't see anyone for months at a time.
- T F 36. I am sensitive to possible rejection by important people in my life.
- T F 37. Making friends is not a problem for me.
- T F 38. I do not know how to meet or talk with members of the opposite sex.
- T F 39. When I cannot make someone close to me do what I want, I feel hurt and angry.
- T F 40. It is my fate to lead a lonely life.
- T F 41. People are never honest with each other.
- T F 42. I put a lot into relationships and get a lot back.
- T F 43. I feel shy about meeting or talking with members of the opposite sex.
- T F 44. The most important thing to me in a relationship is to exercise power over the other person.
- T F 45. I believe that a good mother should always please her children.

APPROVAL SHEET

The dissertation submitted by Eileen F. Bernat has been read and approved by the following committee:

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The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

January 1977
Date

Patricia A. Rupert
Director's Signature