OBJECT RELATIONS AND THE SEVERITY OF
BEHAVIORAL AND PSYCHOLOGICAL INDICES OF BULIMIA

BY

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A DISSERTATION PRESENTED TO THE GRADUATE SCHOOL
OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

1988
ACKNOWLEDGMENTS

I would like to express my gratitude to my chairman, Dr. Hugh Davis, whose years of guidance, encouragement, and mutative interpretations have greatly facilitated the completion of this project and the evolution of my professional identity; the members of my supervisory committee, Dr. Russell Bauer, Dr. F. Joseph Kemker, Dr. Eileen Fennell, and Dr. Nancy Norvell, who in their research and clinical expertise model a standard of excellence for their students; Karen Schlain and George Sweting for their tireless efforts on the computer analyses; Martin and Marcia Brody for their boundless interest, empathy, and optimism; and Douglas Haymaker, for his steadfast enthusiasm and support.
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Abstract of Dissertation Presented to the Graduate School of the University of Florida in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

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BY

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August, 1988

Chair: Hugh Davis, Ph.D.
Major Department: Clinical and Health Psychology

The relationship between conceptual level of object representation, and the behavioral and psychological characteristics of bulimia was studied. Twelve treated bulimics, 13 untreated bulimics, and 43 control subjects completed a series of questionnaires including open-ended parental descriptions which were rated for the qualitative and structural dimensions of object representation. Other behavioral and psychological indices assessed included amount of binging, vomiting, starving, and laxative abuse per week; general psychological distress; depression; and aspects of self-consciousness. Results suggested that the relationship was not linear between conceptual level and the indices targeted for study. However, psychological variables related to the construct of conceptual level (for example, father as nurturant factor) were demonstrated to
be predicted by these indices. Few differences were observed between the treated and untreated clinical groups. The implications of these findings were discussed and recommendations for future research in the area were offered.
INTRODUCTION

The term "bulimia" literally means "ox hunger" or voracious appetite, but in recent years has come to mean binge eating. The syndrome of bulimia is exhibited primarily by women who alternatingly binge on food and then purge via fasting, vomiting, or using laxatives. Bulimia has been termed bulimarexia (Boskind, Lodahl, Sirlin, & White, 1978), bulimia nervosa (Russell, 1979), compulsive eating (Ondercin, 1979), and the dietary chaos syndrome (Palmer, 1979).

There has recently been a dramatic increase in the reported incidence of bulimia. Although the exact incidence in the general population is still unknown, Fairburn (1984) estimates its occurrence in adult women to be approximately 1-2%. Recent studies suggest that 5-10% or more college women in the United States may be gorging and vomiting on a regular basis (Halmi, Falk, & Schwartz, 1981; Hart, 1984; Schwartz, Thompson, & Johnson, 1982). Some indicate that these estimates are thought to be low, speculating that some individuals are not willing to admit to such eating behaviors. Complications from chronic binging and vomiting include electrolyte disturbances, cardiac irregularities, kidney dysfunction, swollen
salivary glands, neurological abnormalities, gastrointestinal disturbances, and dental deterioration. Hence, the seriousness and prevalence of this disorder make it a compelling one for study.

There are many competing etiological theories of bulimia (e.g., Fairburn, 1984; Rosen & Leitenberg, 1984; Schwartz, 1982; Schwartz, et al., 1982; Sugarman & Kurash, 1982). Recent outcome research suggests that therapies developed from these theories are equivocal in effectiveness of treatment, although the number of controlled studies in the literature is limited (Schleiser-Stropp, 1984). One intriguing finding from several treatment studies is that patients, who are recalcitrant to "symptom-oriented" treatments such as exposure plus response prevention and antidepressant drug therapy, often present more severe symptoms and meet the criteria for certain DSM-III personality disorders (Brotman, Herzog, & Woods, 1984; Giles, Young, & Young, 1985). Hence, behavior therapists and physicians are beginning to indirectly acknowledge the importance of personality variables in the assessment and treatment of bulimic patients. As Brotman et al. comment:

Sixteen (73%) of our subjects also had a DSM-III Axis II diagnosis. In our experience, the personality disorders seen in this group contribute to the chronicity of the syndrome. Research into the personality characteristics of bulimic patients is needed to aid clinicians in
designing more effective treatment strategies. (1984, p. 9)

The following paragraphs will review literature relevant to the conceptualization of bulimia within the framework of object relations theory. This framework suggests hypotheses regarding the bulimic's symptoms—why they are manifest and how they are related to an underlying personality organization. Specifically the topics of (a) object representation, (b) the relationship between object representation and psychopathology, and (c) object representation in bulimic patients will be discussed, and a research study examining the object relations theory of bulimia will be outlined.

Object Representation

Object relations theory represents a recent advance in modern psychoanalytic thinking that is a result of a confluence of attachment theory (Mahler, 1968), cognitive psychology (Piaget, 1954; Werner, 1948), and traditional ego psychology (e.g., Hartmann, 1958; Rapaport, 1967), all within a developmental framework. A central focus within object relations theory is in the development of a differentiated, cohesive, and integrated representational world which develops within the context of a maternal or primary matrix, termed by Winnicott (1965) "a holding environment." The primary caretaking agent, in turn, is
seen as the mediator of psychological organization. The concept of "objective representation" refers to the conscious and unconscious mental schemata, including cognitive, affective, and experiential components, of objects encountered in reality (Blatt, 1974). These schemata begin to develop within an interpersonal matrix as vague, diffuse, variable sensorimotor experiences of pleasure and displeasure, and gradually expand and progress into differentiated, consistent, and relatively realistic representations of the self and the object world. Earlier forms of representation are the result of action sequences associated with need gratification. The intermediate forms are based on specific perceptual features of the object, and higher forms of representation are more symbolic and conceptual.

Blatt (1974) proposed four levels of object representation: the sensorimotor, perceptual, iconic, and conceptual. He states:

Representations at the sensorimotor-preoperational level are based primarily on particular action sequences in specific context. Change in need satisfaction, in the action pattern, or in the context can disrupt the infant's experience of the object. Representations at this level lack stability and flexibility. At the concrete-perceptual level, the object is recognized in a variety of contexts and is experienced as a unique entity. But the representations are literal and have little differentiation within the perceptual totality. Representations at the iconic level are more differentiated, but they are based initially on
more manifest part properties and features, and they often lack an integration of contradictory elements. Representations at the conceptual level are more symbolic; and they transcend the manifest, the immediate condition, and the momentary experience; they have greater continuity and stability; and they integrate diverse, separate, and apparently contradictory images into a consolidated representation. (p. 9)

The work of Blatt (1974) and his colleagues may be distinguished from the work of Piaget (1954), although certain similarities are apparent. While Piaget focuses on cognitive development and primarily was concerned with the child's processing of inanimate objects, Blatt (1974) emphasizes the individual's development of interpersonal perception. The conceptual levels he describes denote the capacity the individual has to organize, experience, and act upon the world of other objects. Despite these different emphases, it is clear that object relations theorists would agree that cognitive development and the development of interpersonal perception are related. These theorists utilize the concept of object representation to explain the development and manifestation of psychopathology.

**Object Representation and Psychopathology**

Early work in the area (Blatt & Ritzler, 1974; Blatt & Wild, 1974) focuses on the differentiation of the severity of psychosis by the degree of impairment in the
representation of boundaries between self and nonself, and between inside and outside. Severity of psychosis was found to be related to degree of impairment in these earliest stages of object representation. Once basic boundary differentiations have been established between self and nonself and inside and outside, then the developmental task is to establish self and object representations, which become increasingly articulated, diverse, integrated, symbolic, and constant. These later stages of object representations are relevant to the understanding of depression (Blatt, 1974).

Blatt (1974) distinguishes two types of depression in adults: anaclitic and introjective. Anaclitic depression is characterized by feelings of helplessness, weakness, and depletion. There are intense fears of abandonment and desperate struggles to maintain direct physical contact with the need-gratifying object. Introjective depression, in contrast, is characterized by feelings of worthlessness, guilt, and a sense of having failed to live up to expectation and standards. There are intense fears of a loss of approval, recognition, and love from the object.

In both anaclitic and introjective depression, there are impairments in object representation and struggles to maintain contacts with objects. Yet the former is characterized by feelings of being unlOved--depression is the result of abandonment and neglect. The latter is
characterized by feelings of being unlovable, where depression develops as a function of early parent-child interactions characterized by unrealistic demands, ambivalence, deprecatory experiences, and much hostility.

Recent studies have investigated the relationship between conceptual level of object representations and the existence of disorders such as schizophrenia and depression. Blatt, Brenneis, Schimek, and Glick (1976) used a comparable system to the one described in Blatt et al. (1981) to assess the object representations portrayed in the human figure responses on the Rorschachs of normal and schizophrenic adolescents. They also traced the progressive development of object representations in normal individuals over time. In their comparison study, patients' human responses were significantly more inaccurately perceived, distorted, and partial, and were seen as inert, or engaged in unmotivated, incongruent, nonspecific, and malevolent activity. However, upon further analysis, results indicated that patients consistently gave a significantly greater number of human responses at lower developmental levels (e.g., quasihuman, distorted, incongruent, nonspecific, malevolent, and passive) than did normals on accurately perceived responses. However, on inaccurately perceived responses they gave a significantly greater number of developmentally more advanced human responses (e.g., full human,
functionally articulated, benevolent, and reactive) than did the normal sample.

Blatt and his colleagues (1976) interpret these findings to mean that these psychotic patients function at a developmentally lower level and perceive the world as distorted, malevolent, and destructive when they try to maintain contact with the external environment. Psychotic patients have a greater proclivity for experiencing the world unrealistically, but within these unrealistic experiences they are able to function at developmentally higher levels and experience the world as less threatening. Blatt et al. summarize their findings:

For psychotic patients, adequate interpretations of reality seem to be a painful and disruptive experience, and patients retreat and withdrew to find comfort and peace. Psychotic patients appear more disorganized when they are struggling to deal with and integrate a painful reality and less disorganized when absorbed in unrealistic experiences. It is only for the most seriously disturbed patients, those with severe boundary disturbances, that both accurately and inaccurately perceived responses seem to be at a lower developmental level. (1976, p. 372)

Blatt, Wein, Chevron, and Quinlan (1979) studied parental representation and depression in normal adults. These researchers had college students describe both their mothers and fathers in their standard procedure, and also had them complete a version of the semantic differential (Osgood, Suci, & Tannenbaum, 1957) for "my mother," "my
father," "myself as I am," and "myself as I would like to be" on 17 bipolar adjective scales of the 3 basic factors of Osgood et al.: evaluation, potency, and activity. The descriptions were scored according to the system of Blatt et al. These subjects also completed three measures of depression: the Depressive Experiences Questionnaire (see Method for a description of this instrument), the Zung Self-Rating Depression Scale (Zung, 1965), and a depression measure from the semantic differential.

Important results from this study included comparisons of groups of subjects categorized according to dimensions on the DEQ. Specifically, four groups were formed: those subjects whose depression was primarily anaclitic (high Dependency: DEQ Factor I, n = 13), a mix of anaclitic and introjective depression (high Depression and Self-Criticism: DEQ Factors I and II, n = 13), primarily introjective (high Self-Criticism: DEQ Factor II, n = 20), and a nondepressed group of subjects who were low on both types of depression and high on Efficacy (DEQ Factor III, n = 16). Blatt et al. (1979) found a progressive increase in the conceptual level ranging from low to high in the four respective groups delineated above. There was a significant planned comparison for the conceptual level of both mother and father across the four groups.

Other findings included no significant differences between the conceptual levels of males and females, or for
levels scored from description of mothers or fathers. The sex-by-parent interaction was insignificant as well. In females there were significant relationships, however, between the conceptual level and independent measures of depression. Higher levels of representation in females were significantly and negatively correlated with depression measured on the semantic differential and the Zung Depression Scale. In addition, higher conceptual levels were positively correlated with Efficacy (Factor III on the DEQ). These findings were not found in analyses of the male subjects' data.

The correlation between conceptual level and Factor II (Self-Criticism) of the DEQ was not significant in either females or males. Blatt (1974) indicates that the conceptual level in introjective depression should be at a moderate level, whereas in anaclitic depression the conceptual level should be at the lowest level. He reasons that the guilt characteristic of the introjective depression involves the capacity to be self-reflective, to accept responsibility, and to have some sense of self. Blatt (1974) states that the relationship between Factor II and conceptual level is not expected to be linear and is better addressed by grouping subjects as demonstrated above.

Blatt, Quinlan, Chevron, McDonald, and Zuroff (1982) continued this program of research with clinical patients
as subjects. Two clinical populations (inpatients and outpatients--90% with a primary or secondary diagnosis of depression) were administered the DEQ, a version of the semantic differential, the Zung, the Beck Depression Inventory (Beck, 1967), and the Minnesota Multiphasic Personality Inventory (MMPI). Relationships demonstrated in the 1979 study between the DEQ and other measures of depression were replicated in this clinical population with a few minor differences.

Furthermore, utilizing median splits on each of the DEQ factors, patients were again grouped to exemplify four different types of depression: anaclitic, introjective, mixed, and nondepressed. These four groups showed highly significant differences on the Zung, the Beck Depression Inventory, and the MMPI Depression Scale. There was a particular tendency for the highest level of depression to be reported by the mixed group, as well as to show significant elevation on Feighner criteria (dysphoric mood, neurovegetative signs, and duration of symptoms for at least 1 month).

Four clinical judges without knowledge of the DEQ scores reviewed independently prepared case records of patients in each of the four groups. Judges attempted to predict, in a consensus opinion, whether the patient was high on Dependency, Self-Criticism, on both, or on neither of these dimensions. The judges correctly predicted 56% of
the cases. Assessment of these predictions through the use of the Kappa statistic indicates that judges were able to predict type of depression at a level significantly greater than chance. The most frequent error occurred with the mixed group where the judges correctly identified an elevation on one factor but failed to note the elevation on the other factor.

These results suggest that dependency and self-criticism are primary dimensions of depression that differentiate types of depression within a clinical context. Blatt et al. (1979) emphasize the need to study these two dimensions further and to investigate their relation to aspects of the clinical process, such as precipitating life events, presenting symptoms, and differential response to various treatment modalities. They also point to the advantage in considering forms of depression as deviations of normal developmental processes and as the consequence of exaggerations and distortions of natural life experiences:

Many psychopathological phenomena may be impaired or distorted modes of adaptation established early in the life cycle, perpetuated by subsequent untoward life experiences, and finally expressed when the individual experiences severe stress related to the issues involved in the initial establishment of the maladaptive modes of coping. Many forms of psychopathology may not be disease entities but maladaptive coping styles that have a continuity with normal developmental processes. (p. 122)
Another form of psychopathology that has been conceptualized as a manifestation of inadequate object representation is, of course, bulimia. The following paragraphs will describe this disorder as it has been delineated within the framework of object relations theory.

**Bulimia Within the Object Relations Framework**

Selvini-Palazolli (1978) has written an accepted formulation of the meaning of the body in the anorexic syndrome. The theory states that the anorexic projects the bad internalized mother into her body so the body becomes identified with the maternal object and experienced as the maternal object. Consequently, the body becomes a persecutory object which must be controlled totally lest it devour or smother the patient. Sugarman and Kurash (1982) question the validity of this with bulimia, which they view as a more developmentally primitive ego boundary disturbance. These theorists utilize a developmental model emphasizing both object relations and cognitive dimensions of development:

Bulimia reflects an arrest at the earliest stage of transitional object development. The failure of adequately separate both physically and cognitively from the maternal object during the practicing subphase leads to a narcissistic fixation on one's own body at the expense of reaching out to other objects in a wide world, through the use of external transitional objects. This arrest in the area of transitional...
objects has profound consequences as regard to
self-other boundary differentiation,
individuation and capacity for symbolization.
(p. 122)

Self and object representations associated with this
developmental period are sensorimotor in nature (Blatt,
1974). Thus, at this time objects are almost completely
embedded within the infant's interaction with them. Hence
Sugarman and Kurash (1982) indicate that self and object
representations form via action or motor sequences of the
self, with much emphasis given to the sensory quality of
the object represented. Thus, the practicing infant's own
body is its first transitional experience, later moving on
to external transitional objects which require more
cognitive complexity (because they symbolize a merged
maternal-infant representation as well as being external
objects in their own right). The transitional object
serves as an external cue to evoke symbolically the
illusion of reunion of the mother. During the later phase
of rapprochement in normal development, the child develops
to evoke a representation of the mother in her absence and
without the aid of external cue.

In the bulimic, this process is interrupted. Parental
influences that violate transactional boundaries via under-
or overinvolvement inhibit normal infant striving for
autonomy and activity associated with the practicing
subphase. The mother's symbiotic tie to the infant
precludes the symbolization of the reunion with her. The position of Sugarman et al. (1982) can be summed up in their comment:

The sensorimotor nature of the self and object representations of this developmental period contribute also to the bulimic's concreteness. Consequently, these patients must engage in concrete bodily action in order to again regain the experience of the needed object. It is likely that the acts of eating (in childhood) and later gorging (in adolescence) become the need-gratifying activities which allow the bulimic to develop a sensorimotor representation of the mother. Food is not the issue, rather it is the bodily action of eating which is essential in regaining a fleeting experience of the mother. The dread of fusion and other psychodynamics mobilized by the experience of the symbiotic mother often lead to vomiting, another bodily action. (p. 125)

This object relations approach to bulimia has been formulated through several case studies in the literature (e.g., Lerner, 1983; Masterson, 1977) but has rarely been subject to empirical test. Clearly, such investigations are warranted to support the use of these formulations in the planning of interventions.

Object representation in bulimic individuals has not been studied in depth. In fact, the research on psychological test data (both personality and projective) in this population is in its early stages. One study compared the MMPI profiles of restricting anorectics, binge/purge anorectics, and normal weight bulimics (Norman & Herzog, 1983). Both anorectic groups demonstrated
significant elevations on the Depression (2) scale. Both bulimic groups demonstrated elevations on the Psychopathic Deviate (4) scale. The normal weight bulimic groups had a 4287 configuration, with minimal differences between 8 and 7. Thirty normal weight bulimics tested by Pyle, Mitchell, and Eckert (1981) also demonstrated the 4287 configurations.

Allerdissen, Florin, and Rost (1981) gave the Picture Frustration Test and several self-report inventories to 28 bulimics and 28 control subjects. Their bulimics tended not to blame others for frustrating them, had greater perception of external control, less sexual pleasure, and more depression than the controls.

A recent in-depth study by Wallach and Lowenkopf (1984) examined five bulimic women's responses on the WAIS-R, Rorschach, TAT, figure drawings, and MMPI. Caution must be taken in examining the results of such a limited sample. Results included a mean MMPI profile similar to the profile observed in the study of Norman and Herzog--42875. Rorschach responses were scored according to Exner's system. The only difference between the subjects and a normative nonpatient sample was that bulimics gave fewer responses with human content, implying withdrawal from human contact and deficits in interpersonal relationships. This may be due to a bias in the patient sample, however. Other aspects of the patients' protocols
were entirely heterogeneous. The TAT stories were also heterogeneous, although certain themes did emerge across protocols upon analysis of the first two cards. Specifically, the themes of complying to external (e.g., familial) demands and limited rebellion emerge from these test data.

Joyce Aronson (1986) studied the relationship between object relations and both demographic and behavioral variables in a normal weight bulimic population. Forty-nine female patients who met DSM-III criteria for bulimia were given a self-administered questionnaire to elicit demographic and behavioral information and the Blatt Assessment of Qualitative and Structural Dimensions of Object Representations to measure conceptual level. She found that a combination of five variables could predict level of object relations to a multiple $R$ of .59 ($R$-square $= .35$): (a) days per week laxative abuse, (b) use of starvation, (c) days per week vomiting, (d) days per week when drinking, and (e) residence status (living at home).

As Brotman et al. (1984) and others have noted, there is still much to be understood about the relationship between personality organization and bulimia. The preceding paragraphs have reviewed the literature relevant to the conceptualization of bulimia within the framework of object relations theory. This framework suggests hypotheses regarding the bulimic's symptoms--why they are
manifested and how they are related to underlying personality organization. Recent studies have investigated the relationship between conceptual level and the nature of disorders such as schizophrenia and depression, but little attention has been delegated to the empirical study of the object relations theory of bulimia.

The formulations of Sugarman and Kurash (1982) are often supported in the literature with case studies of patients with borderline personality diagnosis, or who at points have also met the criteria for anorexia nervosa. However, limited emphasis has been given to elucidating empirically the connections between personality function and symptomatology. One question that emerges is "Where is the pathology--in the behavior or in the personality organization?" In the current study, object representation will be studied in an effort to focus on aspects of personality that may be related to presenting symptoms. More specifically, the relationship between conceptual level of object representation and severity of classic indicators of bulimia will be studied. Given the function of the symptoms of bulimia with object relations theory (that binging and vomiting are efforts to evoke an early sensorimotor experience of the illusion of union with the mother, because bulimics do not have enduring mental representations of their relationship with the mother), a question that may be forwarded concerns the severity of
these symptoms. Do those bulimics at lower conceptual levels demonstrate more severe symptoms than those at higher levels due to their inability to rely on conceptual evocation of enduring objects? The relationship between conceptual level and the severity of bulimic and other psychological symptoms will be examined in the present study.

**Research Hypotheses**

Hypotheses for this study are:

1. Level of object representation will be predicted by severity of bulimia as measured by number of binges per week, episodes of vomiting per week, episodes of laxative abuse per week, episodes of starving per week, level of depression, and amount of alcohol consumed per week. Specifically, those at lower conceptual levels will demonstrate greater indices of symptom severity.

2. Differences between bulimics in treatment and bulimics not in treatment will be observed on a number of psychological variables. Hence, exploratory analyses will focus on relationships between factors related to object representation (e.g., conceptual level, mother as striving factor, father as striving factor, mother as nurturant factor, father as nurturant factor) and factors related to bulimia and other psychological symptoms (e.g., social
anxiety, introjective and anaclitic depression) within and between groups of treated, untreated, and control subjects.

3. Subjects will demonstrate a progressive increase in conceptual level ranging from lower to higher when grouped into four categories on the basis of their scores on the Depressive Experiences Questionnaire. These groups will include those subjects whose depression is primarily anaclitic (high Dependency--DEQ Factor I), a mix of anaclitic and introjective (high on both Factors I and II), primarily introjective (high Self-Criticism--DEQ Factor II), and those who are nondepressed (low on both Factors I and II, and high on Efficacy--Factor III).
METHOD

Subjects

Clinical subjects were recruited from the Psychology Clinic, the Counseling Center, and the Eating Disorders Clinic at the University of Florida during a 1-year period from January to December, 1986. Patients at these sites meeting the DSM-III criteria for bulimia were invited by their intake therapist to participate in a research study of behaviors and interpersonal relationships. Bulimia was not mentioned as the target for study. Clinical subjects were also located via a screening of the undergraduate Introductory Psychology classes at the University of Florida. These students completed the Bulimia Test included in a battery of 10 to 12 measures given at the start of the semester as part of a class requirement. Those testing above the cut-off score (using the screening cut-off of 88) were called and invited to participate in a study of "Behavior and Interpersonal Relationships" to fulfill additional course requirements. No indication was given to these individuals that they had been selected due to their responses on the BULIT. Control subjects were also Introductory Psychology students participating for class credit and were recruited via posted sign-up sheets.
at the Psychology Building. They, too, were invited to participate in a study of behaviors and interpersonal relationships. All control subjects achieving scores of 88 or higher on the BULIT were included in the untreated clinical group if the questionnaire data indicated they met the DSM-III criteria for bulimia. If they did not meet the criteria, they remained in the control group. Twelve bulimics currently in treatment, 13 bulimics not in treatment, and 43 control subjects were included in the study. All clinical subjects included in the study were female. Thus only female students were recruited as controls.

Clinical subjects ranged in age from 18 to 32. Mean ages for the untreated and treated bulimic subjects were 19.7 and 21.4, respectively ($n = 13$ and $n = 12$). Table 1 summarizes results of analysis of variance (ANOVA) performed on the three clinical groups for relevant variables. Because few differences were observed between the two clinical groups, they will be combined as one clinical bulimic group for some of the data analyses. Educational levels ranged from high school graduate to college graduate. All but one clinical subject were college students, though many had part-time jobs and one student had a full-time job. Students majored in a diversity of subjects ranging from education, social sciences, humanities to sciences. Total family income of
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<td>60.6c</td>
<td>112.0c</td>
<td>125.0c</td>
<td>15.7</td>
<td>11.6</td>
<td>13.6</td>
<td>18.5</td>
<td>12.5</td>
<td>18.6</td>
<td>.59</td>
<td>.05</td>
</tr>
<tr>
<td>BULIT</td>
<td>24.4c</td>
<td>24.4d</td>
<td>23.5d</td>
<td>4.9</td>
<td>4.6</td>
<td>4.0</td>
<td>2.5</td>
<td>4.2</td>
<td>6.4</td>
<td>.28</td>
<td>.05</td>
</tr>
<tr>
<td>PRIVSC</td>
<td>19.1c</td>
<td>112.0d</td>
<td>71.2d</td>
<td>4.8</td>
<td>4.0</td>
<td>5.9</td>
<td>2.5</td>
<td>6.4</td>
<td>4.0</td>
<td>.38</td>
<td>.05</td>
</tr>
<tr>
<td>GSI</td>
<td>61.2c</td>
<td>69.5d</td>
<td>71.2d</td>
<td>7.0</td>
<td>5.9</td>
<td>5.9</td>
<td>5.9</td>
<td>4.0</td>
<td>4.0</td>
<td>.26</td>
<td>.05</td>
</tr>
<tr>
<td>DEPBSI</td>
<td>57.2c</td>
<td>67.1d</td>
<td>71.9d</td>
<td>16.9</td>
<td>11.9</td>
<td>17.0</td>
<td>18.5</td>
<td>14.0</td>
<td>14.6</td>
<td>.98</td>
<td>.05</td>
</tr>
<tr>
<td>CONTOT</td>
<td>4.6c</td>
<td>4.1c</td>
<td>4.3c</td>
<td>2.6</td>
<td>2.0</td>
<td>3.9</td>
<td>3.9</td>
<td>4.0</td>
<td>3.1</td>
<td>.45</td>
<td>.05</td>
</tr>
</tbody>
</table>

aBULIT = Bulimia Test, PUBSC = public self-consciousness, PRIVSC = private self-consciousness, GSI = psychological distress, DEPBSI = general depression, CONTOT = conceptual level. bMeans within each row with different superscripts have different significance at P < .05.
these individuals ranged from less than $10,000 to more than $50,000 per year. Mean yearly family income was $30,000 to $50,000. Weight of the subjects ranged from 102 to 227 pounds with a mean of 132 pounds. Height ranged from 4'6" to 6' with a mean of 5'4". All clinical subjects met the DSM-III criteria for bulimia at the time of their participation in the study, as determined by clinical interview or questionnaire data. Subjects were excluded who also currently presented with anorexia nervosa. One patient reported a past history of anorexia nervosa.

**Measures**

**Measure of Object Representation**

Object representation will be assessed according to the rating system of Blatt et al. (1981) developed to judge written descriptions of significant others. Subjects are given a blank page with the instructions: "Describe your mother" on one page, followed by a request on the next page to "Describe your father." Five minutes are allotted for each description. These descriptions are rated for qualitative characteristics as well as conceptual level of object representation.

Qualitative characteristics (attributed to the parents by the subject) are measured by a series of 14 categories scored on a 7-point scale by a trained rater. These dimensions are Affectionate, Ambitious-Driving,
Malevolent-Benevolent, Cold-Warm, Degree of Constructive Involvement, Intellectual, Judgemental, Negative-Positive Ideal, Nurturant, Punitive, Successful, Weak-Strong, Degree of Ambivalence, and Verbal Fluency. Blatt et al. (1981) report interrater reliability (alpha coefficient) for three raters to range from .68 for "affectionate" to .93 for "successful."

In a factor analysis of their scoring system, Blatt et al. (1981) found the first 13 characteristics (verbal fluency is considered separately) loaded on two factors. The first factor, parent as nurturant, was composed of nurturance (factor loading = .90), positive ideal (.90), benevolence (.88), warmth (.87), constructive involvement (.84), affectionate (.80), strength (.67), and successful (.65). The second factor, parent as striving, was made up of judgemental (.90), ambitious (.89), punitive (.88), intellectual (.82), ambivalence (.60), successful (.48), and strength (.48). The scale scores for parent as nurturant and parent as striving were attained by adding the scale scores of the characteristics which loaded on that factor. Overall, the nurturant factor and striving factor had a reliability of .95 and .93, respectively, for all three judges rating the original sample of Blatt et al.

The 14th characteristic, verbal fluency, is measured by coding the length of the typed description (e.g., 1-4 lines = 1, 5-7 lines = 2, 8-10 lines = 3, . . . more than
When this factor was analyzed along with the other 13 characteristics, verbal fluency formed a third, single-variable factor.

Conceptual level is designated via a single-scale score of 1-9 to denote one of the five possible levels of development (see Appendix for descriptions from scoring manual). Again, these levels are sensorimotor-preoperational (scaled score = 1), concrete-perceptual (3), external iconic (5), internal iconic (7), and conceptual (9). Interrater reliability for scoring conceptual level reported by Blatt (1981) ranged from .88 (between expert and trained rater) to .70 (between expert rater and untrained rater) to .85 (for all three raters).

Measures of Psychopathology

The Bulimia Test (BULIT). The BULIT (Smith & Thelen, 1984) is a 32-item, self-report, multiple-choice scale designed to assess the symptoms of bulimia. The measure may be used to assess severity of symptoms in clinical populations and also to identify bulimia in a more general population. Higher scores on the BULIT indicate greater severity of symptoms. Test-retest reliability has been demonstrated to be .87 over a 2-month period. Cross-validation studies across two independent samples of normal and bulimic subjects suggest that the scale has predictive diagnostic ability. The BULIT was further validated on a nonclinical college population. Scores were predictive of
diagnosis as judged on the basis of independent clinical interviews. The scale was also shown to be correlated with other measures of bulimic behaviors and attitudes, the Binge Scale and the Eating Attitudes Test (.93 and .68, respectively).

**Depressive Experiences Questionnaire (DEQ).** The DEQ (Blatt, D'Affliti, & Quinlan, 1976) is a 66-item questionnaire that assesses feelings about both the self and general interpersonal relationships. These feelings are thought to be relevant to depression but not in themselves manifest symptoms of depression. Three highly stable factors (Dependency, Self-Criticism, and Efficacy) have been identified in several independent subject samples (Blatt et al., 1976). Estimates of reliability (alpha coefficients) for the three factors are .81, .80, and .72, respectively. The construct validity of these factors was demonstrated by differential correlations with adherence to sex-role stereotypes (Chevron, Quinlan, & Blatt, 1978), social class and social mobility (Steele, 1978), and qualities and cognitive organization in the description of parents (Blatt, Wein, Chevron, & Quinlan, 1979).

**Self-Consciousness Inventory.** The Self-Consciousness Inventory (Fenigstein, Scheier, & Buss, 1975) is a 23-item scale developed to assess self-awareness, or the tendency to direct self-attention inward or outward. Each item is rated on a scale of 0 (extremely uncharacteristic) to 4.
(extremely characteristic). Factor analysis produces three subscales: private self-consciousness, public self-consciousness, and social anxiety. The first two scales address processes of self-focused attention and the third may be considered a reaction to these processes. The private self-consciousness factor involves attending to one's inner thoughts and feelings, e.g., "I reflect about myself a lot." The public self-consciousness factor addresses a general awareness of the self as a social object that has an effect on others, e.g., "I'm very concerned about the way I present myself." The third factor, social anxiety, addresses discomfort in the presence of others, e.g., "I feel anxious when I speak in front of a group." Good test-retest reliability has been demonstrated for the three subscales (.84, .79, .83, respectively) and for the scale overall (.80). The authors also present studies supporting the construct validity of this measure.

**Brief Symptom Inventory (BSI).** The Brief Symptom Inventory (Derogatis & Spencer, 1982) is a 53-item self-report symptom inventory designed to assess the psychological symptom patterns of psychiatric and medical patients as well as nonpatient individuals. Each item is rated on a 5-point scale of distress (0-4), ranging from "not at all" (0) to "extremely" (4). The BSI may be scored for three global indices and is comprised of nine primary
symptom dimensions. These dimensions are Somatization, Obsessive-Compulsive, Interpersonal Sensitivity, Depression, Anxiety, Hostility, Phobic Anxiety, Paranoic Ideation, and Psychoticism. This measure is essentially the brief form of the SCL-90-R (Derogatis, 1977). Evaluation of that instrument suggested that five to six of the items on each subscale were sufficiently saturated to sustain an operational definition of each syndrome construct, and the highest loading items of each dimension were selected to form the BSI. Adequate test-retest reliability is demonstrated over a 2-week period for the global indices (e.g., .90 for the Global Symptoms Index) and for the subscale measures (which range from a low of .68 for Somatization to a high of .91 for Phobic Anxiety). Derogatis and Spencer (1982) summarize considerable evidence of studies confirming the convergent, discriminant, construct, and predictive validity of the instrument, as well.

**Procedure**

Clinical subjects currently in treatment were invited to participate in a research study on bulimia by their therapist or intake interviewer. Those who agreed were contacted by phone and scheduled for a session during which they completed the research batteries. Clinical subjects were tested individually with a researcher available in an
adjoining room to answer their questions about the study. Clinical subjects not currently in treatment, as well as control subjects, were recruited as described in the Subjects section, above. They were also tested individually. Normal control subjects' sessions were run in groups of 3-4 students. All subjects completed the questionnaires without discussion among group members. Instructions were identical for clinical and nonclinical subjects. They were instructed to complete each questionnaire in succession and reminded to allot 5 minutes for each parental description. They were permitted to ask questions of the researcher, although very few utilized this option. Most questions involved clarification of a word, wherein a synonym was supplied. Several subjects inquired about the alcohol amount question. They were told to detail their answer in approximate ounces of alcohol per drink. Subjects were asked to return the questionnaire packet to the researcher upon finishing. Following the sessions, all participants were debriefed via a short written statement that explained the study. Appropriate references were also included with this statement. These references were Blatt's (1974) seminal article on object representation and anaclitic versus introjective depression, and the paper of Sugarman and Kurash (1982) on the body as a transitional object in bulimia.
Data Analysis

For Hypothesis 1, a stepwise linear regression analysis was performed to determine if level of object representation was predicted by severity of bulimia as measured by number of binges per week, episodes of vomiting per week, episodes of laxative abuse per week, episodes of starving per week, level of depression, and amount of alcohol consumed per week. Analyses were performed across clinical subjects and also for each condition (controls, untreated bulimics, and treated bulimics).

For Hypothesis 2, a series of stepwise linear regression analyses were performed to determine differences observed between bulimics in treatment and not in treatment on a number of psychological variables. This investigation focused on relationships between factors related to object representation (e.g., conceptual level, mother as nurturant and striving factors, father as nurturant and striving factors) and factors related to bulimia and other psychological symptoms (e.g., social anxiety, introjective and anaclitic depression). Again, analyses were performed across clinical subjects and separately for each condition.

For Hypothesis 3, a one-way analysis of variance was performed on subjects' conceptual level scores when subjects were grouped according to their responses on the Depressive Experiences Questionnaire. Those who scored high on the Dependency factor were placed in the first
group and those who scored high on the Self-Criticism factor were placed in the second. Those who scored high on both these factors were placed in the third group. Those who scored low on both factors and high on the third factor, Efficacy, comprised the fourth group.
RESULTS

In the first section, the reliability statistics for the scoring of the written parental description are presented, as well as other findings related to the scoring of these instruments. The following sections will pertain to the three hypotheses set forth. The results for Hypothesis 1 address the relationship between the dependent variable, conceptual level, and the classic indicators of bulimia. This finding is summarized in Table 2, as are summarized the results pertaining to the relationship between the dependent variable, conceptual level, and the more psychological indices targeted for study. Hypothesis 2 focuses on the exploration of additional psychological variables as both independent and dependent variables and addresses differences between subject groups as well. Results for Hypothesis 2 are summarized in Tables 3 and 4. Table 3 delineates findings of analyses in which various psychological indices are the dependent variables and classic indicators of bulimia are the independent variables. Table 4 delineates findings of exploratory analyses in which various psychological indices are studied as both dependent and independent variables. Finally, the
findings for Hypothesis 3 are summarized in the text and are then followed by results of additional analyses.

**Interrater Reliability and Related Analyses**

Reliability of the parental description scoring was assessed for the primary and independent raters' scores. Twenty father and 20 mother descriptions were randomly selected for this process. Cohen's statistic Kappa was calculated to be .62 for the 40 descriptions rated. Percentage agreement (within one scoring level) was .70 for both mother and father descriptions. Discrepancies between the two raters were clarified via discussion, with ratings then changed accordingly.

Student's t-tests were performed between mean conceptual level for mother and mean conceptual level for father across all subjects and by condition. No significant differences were found. Hence, the average of the two scores was used for all analyses to represent conceptual level. This practice was established by Blatt et al. (1981) and is implemented in the majority of his studies.

**Object Representation and Severity of Bulimia**

Hypotheses 1 and 2 address the relationship between object representation and severity of bulimia. To recap, Hypothesis 1 suggested that level of object representation
would be predicted, via stepwise linear regression, by severity of bulimia as measured by number of binges per week, episodes of vomiting per week, episodes of laxative abuse per week, episodes of starving per week, level of depression, and amount of alcohol consumed per week. Specifically, those at lower conceptual levels would demonstrate greater indices of symptom severity. As indicated in Table 2, across clinical subjects, no classic indicators of bulimia severity accounted for variance in conceptual level, utilizing a stepwise regression analysis. Independent variables utilized in that equation were times per week vomiting (XVOM), binging (XBINGE), exercising (XEXER), fasting (XFAST), and amount of alcohol use (ALCAMT). In that population, however, significant predictors were observed when the following independent variables were entered into equations: psychological distress (GSI), alcohol use (ALCAMT), general depression (DEPBSI), introjective (DEQI) and anaclitic (DEQD) depression, private (PRIVSC), public (PUBSC), and total self-consciousness (TOTSC), social anxiety (SOCANX), mother as nurturant (MOMFAC1) and striving (MOMFAC2) factor scores, father as nurturant (DADFAC1) and striving (DADFAC2) factor scores, and degree of perception of self as overweight (PERC). Increasing father as nurturant scores were predictive of higher conceptual level scores,
### Table 2
Stepwise Regression Predicting Conceptual Level

<table>
<thead>
<tr>
<th>Group</th>
<th>Independent Variable(^a)</th>
<th>Model R(^2)</th>
<th>F</th>
<th>prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 + 2 (n = 25)</td>
<td>DADFAC1</td>
<td>.1954</td>
<td>5.04</td>
<td>.036</td>
</tr>
<tr>
<td>0 (n = 43)</td>
<td>(-) GSI</td>
<td>.0588</td>
<td>2.56</td>
<td>.117</td>
</tr>
<tr>
<td>1 (n = 13)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2 (n = 12)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>0 + 1 + 2 (n = 68)</td>
<td>(-) DEQI</td>
<td>.0840</td>
<td>5.87</td>
<td>.018</td>
</tr>
<tr>
<td></td>
<td>(-) SOCANX</td>
<td>.1247</td>
<td>4.49</td>
<td>.015</td>
</tr>
</tbody>
</table>

\(^a\)DADFAC1 = father as nurturant, GSI = psychological distress, DEQI = introjective depression, SOCANX = social anxiety.
accounting for 20% of the variance. To review the factor "father as nurturant" is a reflection of the following dimensions: nurturance, positive ideal, benevolence, warmth, constructive involvement, affectionate, strength, and successful. For the control condition (0), a trend was noted for lower GSI scores (an index of psychopathology or psychological distress on the BSI) to be predictive of higher conceptual levels. This trend was not found in the untreated clinical (1) or treated clinical (2) conditions. For conditions 1 and 2 analyzed separately, no variables accounted for variance in conceptual level. Across all conditions combined, lower levels of introjective depression and social anxiety were predictive of conceptual level, together accounting for 12% of the variance.

Hypothesis 2 suggests that differences between bulimics in treatment and not in treatment would be observed on a number of psychological variables. Hence exploratory stepwise regression analyses would focus on relationships between factors related to object representation (e.g., conceptual level, mother as striving factor, father as striving factor, mother as nurturant factor, father as nurturant factor) and factors related to bulimia and other psychological symptoms (e.g., social anxiety, introjective and anaclitic depression) within and between groups of treated, untreated, and control subjects.
To address Hypothesis 2, two exploratory stepwise regressions were performed. The first series are summarized in Table 3 and utilized the following independent variables: time per week vomiting, binging, exercising, fasting, use of alcohol, psychological distress, introjective, and anaclitic depression scores. Examination shows that higher father as nurturant factor scores were predicted by lower introjective depression scores, fewer times per week binging, and higher psychological distress scores across the two clinical groups. No variables accounted for variance in DADFAC1 in the control group, and lower introjective depression scores were predictive of DADFAC1 for the treated and untreated bulimic groups analyzed separately. Across clinical groups, fewer times per week exercising and amount of alcohol consumed were predictive of father as striving factor scores. Again, to review, the father as striving factor reflects the following dimensions: judgemental, ambitious, punitive, intellectual, ambivalent, successful, and strength. No variables were predictive of DADFAC2 for the control subjects. Fewer episodes of exercising were predictive of DADFAC2 in the untreated clinical group, and psychological distress was predictive of that variable in the treated group.
Table 3
Exploratory Stepwise Regressions Utilizing Classic Indicators of Bulimia as Independent Variables

<table>
<thead>
<tr>
<th>Dependent Variable&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Group</th>
<th>Independent Variable&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Model $R^2$</th>
<th>$F$</th>
<th>prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>DADFAC1</td>
<td>1 + 2</td>
<td>(-) DEQI</td>
<td>.2055</td>
<td>5.43</td>
<td>.030</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-) XBINGE</td>
<td>.3103</td>
<td>3.03</td>
<td>.097</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GSI</td>
<td>.3844</td>
<td>2.28</td>
<td>.147</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>NONE</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>(-) DEQI</td>
<td>.1985</td>
<td>2.47</td>
<td>.147</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>(-) DEQI</td>
<td>.2878</td>
<td>3.63</td>
<td>.089</td>
</tr>
<tr>
<td>DADFAC2</td>
<td>1 + 2</td>
<td>(-) XEXER</td>
<td>.2335</td>
<td>6.39</td>
<td>.020</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ALCAMT</td>
<td>.3531</td>
<td>3.69</td>
<td>.069</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>NONE</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>(-) XEXER</td>
<td>.2772</td>
<td>3.83</td>
<td>.079</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>GSI</td>
<td>.4318</td>
<td>6.84</td>
<td>.028</td>
</tr>
<tr>
<td>MOMFAC1</td>
<td>1 + 2</td>
<td>(-) XVOM</td>
<td>.2408</td>
<td>6.66</td>
<td>.017</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>ALCAMT</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>NONE</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>(-) XEXER</td>
<td>.3772</td>
<td>5.45</td>
<td>.044</td>
</tr>
<tr>
<td></td>
<td></td>
<td>XVOM</td>
<td>.6268</td>
<td>5.35</td>
<td>.049</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GSI</td>
<td>.9445</td>
<td>40.09</td>
<td>.001</td>
</tr>
<tr>
<td>MOMFAC2</td>
<td>1 + 2</td>
<td>NONE</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>NONE</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>(-) DEQI</td>
<td>.1958</td>
<td>2.48</td>
<td>.1466</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>NONE</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>DEQD</td>
<td>1 + 2</td>
<td>NONE</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>GSI</td>
<td>.1853</td>
<td>9.32</td>
<td>.004</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>GSI</td>
<td>.2813</td>
<td>3.91</td>
<td>.076</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>NONE</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>DEQI</td>
<td>1 + 2</td>
<td>ALCAMT</td>
<td>.1650</td>
<td>4.18</td>
<td>.055</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>GSI</td>
<td>.1985</td>
<td>10.15</td>
<td>.003</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>NONE</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>ALCAMT</td>
<td>.2549</td>
<td>3.52</td>
<td>.113</td>
</tr>
</tbody>
</table>

<sup>a</sup>DADFAC1 = father as nurturant, DADFAC2 = father as striving, MOMFAC1 = mother as nurturant, MOMFAC2 = mother as striving, DEQD = anaclitic depression, DEQI = introjective depression.  
<sup>b</sup>DEQI = introjective depression, XBINGE = times per week binging, GSI = psychological distress, XEXER = times per week exercising, ALCAMT = amount of alcohol use, XVOM = times per week vomiting.
For the mother as nurturant factor scores, less episodes of vomiting per week were predictive across the clinical groups. Amount of alcohol consumed was predictive of MOMFAC1 in the control group, and no variables were predictive of that variable in the untreated clinical group. For condition 2 analyzed separately, more exercising, less vomiting episodes and higher psychological distress scores were predictive of MOMFAC1. For mother as striving factor scores, no variables were predictors for either condition 0 or 2 analyzed separately, or for the clinical groups combined. Lower introjective depression scores were predictive of MOMFAC2 for condition 1 subjects. No variables were predictive of anaclitic depression scores in the combined clinical group, and in condition 2 analyzed separately. Psychological distress scores were predictive of this variable for conditions 0 and 1 analyzed separately, however. Across both clinical conditions and for condition 2 only, amount of alcohol consumed was predictive of introjective depression. No variables were predictive of that variable for condition 1. Psychological distress was predictive of introjective depression in the control group.

The second series, summarized in Table 4, utilized the following independent variables: conceptual level; psychological distress (GSI); alcohol use; general
### Table 4
**Exploratory Stepwise Regressions Utilizing Psychological Variables as Independent Variables**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Group</th>
<th>Independent Variable</th>
<th>Model $R^2$</th>
<th>$F$</th>
<th>prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BULIT</strong></td>
<td>1 + 2</td>
<td>(-) PUBSC</td>
<td>.2458</td>
<td>6.84</td>
<td>.016</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DEPBI</td>
<td>.4434</td>
<td>7.10</td>
<td>.015</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DEQD</td>
<td>.5831</td>
<td>6.36</td>
<td>.021</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-) DADFAC1</td>
<td>.6472</td>
<td>3.26</td>
<td>.087</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>(-) PERC</td>
<td>.3936</td>
<td>26.61</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>NONE</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
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<sup>a</sup>BULIT = Bulimia Test, DADFAC1 = father as nurturant, DADFAC2 = father as striving, MOMFAC1 = mother as nurturant, MOMFAC2 = mother as striving, DEQD = anaclitic depression, DEQI = introjective depression.  

<sup>b</sup>PUBSC = public self-consciousness, DEPBSI = general depression, DEQD = anaclitic depression, DADFAC1 = father as nurturant, PERC = degree of perception of self as overweight, DEQI = introjective depression, ALC = days per week alcohol use, CONTOT = conceptual level, SOCANX = social anxiety, TOTSC = total self-consciousness, ALCAMT = amount of alcohol use, GSI = psychological distress.
depression; introjective and anaclitic depression; private, public, and total self-consciousness; social anxiety; mother and father as nurturant factor scores; mother and father as striving factor scores; and degree of perception of self as overweight. Results of these analyses will be reported according to dependent variable and will be presented in relation to findings from Table 3 in order to integrate the findings.

The Bulimia Tests (BULIT)

For scores on the Bulimia Test as the dependent variable, across combined conditions 1 and 2, higher BULIT scores were predicted by lower public self-consciousness scores, higher general depression scores, lower anaclitic depression scores, and lower father as nurturant factor scores. For condition 0, BULIT scores were predicted by less perception of the self as overweight and higher introjective depression scores. Thus, as BULIT scores approached the clinical range, individuals were less likely to acknowledge considering themselves as overweight, but more likely to experience symptoms of self-critical depression. No variables were predictive of BULIT scores for condition 1. For condition 2, the only variable predictive was less public self-consciousness, perhaps related to their ability to seek help for an often "secret" problem.
Father as Nurturant Factor Score: DADFAC1

Across conditions 1 and 2, DADFAC1 was predicted by lower introjective depression scores, fewer episodes per week binging and higher GSI scores. Also across conditions 1 and 2, DADFAC1 could be predicted by lower introjective depression scores, more frequent days of alcohol use, higher conceptual levels, greater general depression, and more social anxiety. No variables were predictors for DADFAC1 in condition 0. DADFAC1 was predicted by lower scores of introjective depression when both conditions 1 and 2 were analyzed separately.

Father as Striving: DADFAC2

Across conditions 1 and 2, DADFAC2 was predicted by fewer days exercising and greater amounts of alcohol consumption when drinking. No variables were predictive of DADFAC2 when condition 0 was analyzed separately. For subjects in condition 1, fewer episodes of exercising was predictive of higher DADFAC2 scores. For those in condition 2, higher GSI scores were predictive of higher DADFAC2 scores.

Mother as Nurturant Factor Scores: MOMFAC1

Across conditions 1 and 2, higher MOMFAC1 scores were predicted by fewer episodes of vomiting per week. Hence, those clinical bulimics who viewed their mothers as more nurturant were demonstrating less vomiting behaviors. Higher MOMFAC1 scores were also predicted by more days upon
which alcohol was consumed. For condition 1, no variables were predictors. For condition 2, higher MOMFAC1 scores were predicted by more episodes of exercising, less vomiting, and higher GSI scores.

Mother as Striving: MOMFAC2

Across conditions 1 and 2, no indications of bulimia severity were predictive of MOMFAC2. MOMFAC2 was predicted by less perception of the self as overweight and higher conceptual level scores. No variables were predictors of MOMFAC2 in condition 0. For condition 0, MOMFAC2 was predicted by lower scores of introjective depression.

Ancilitic Depression Scores: DEQD

Across conditions 1 and 2, the classic symptoms of bulimia were not predictive of DEQD. However, DEQD was predicted by less perception of the self as overweight, and higher GSI scores. For conditions 0 and 1 analyzed separately, higher GSI scores were predictive of DEQD. No variables were predictive in condition 2. Hence, it may be the dynamics of anaclitic depression appear less predominant in this bulimic sample.

Introjective Depression: DEQI

Across conditions 1 and 2, the classic symptoms of bulimia were not predictive of DEQI. However, DEQI was predicted by the greater amounts of alcohol consumed in days drinking, both for conditions 1 and 2 combined and for condition 2 alone. DEQI could also be predicted by less
perception of the self as overweight and lower father as nurturant factor scores. For condition 0, DEQI was predicted by higher GSI scores. No variables were useful predictors in condition 1.

Replication of Blatt's Findings on Depression

Hypothesis 3 predicted that subjects would demonstrate a progressive increase in conceptual level ranging from lower to higher when grouped into four categories on the basis of their scores on the Depressive Experiences Questionnaire. These groups were to include those subjects whose depression is anaclitic (high Dependency--DEQ Factor 1), a mix of anaclitic and introjective (high on both Factors 1 and 2), primarily introjective (high Self-Criticism--DEQ Factor 2), and those who are nondepressed (low on both Factors 1 and 2, and high on Efficacy--Factor 3).

Of the 68 clinical and control subjects, 32 were categorized in Blatt's system. Blatt does not present data indicating the percentage of his samples that fall into one of his four categories. In the current sample, eight subjects were categorized in the anaclitic group, seven were placed in the introjective group, eight were in the mixed group, and nine were in the nondepressed group (scored low on anaclitic and introjective depression and high on self-efficacy). A one-way analysis of variance between mean conceptual levels of these groups was not
significant ($p > .10$). Significant differences between groups was observed for both mother as nurturant factor scores ($F(3,29) = 3.58, p < .05$) and on the Depression scale of the Brief Symptom Inventory ($F(3,29) = 3.02, p < .05$). Post hoc analyses reveal that the nondepressed group mean mother as nurturant factor score is significantly higher than the other three groups. Also, post hoc analyses indicate that the mixed (anaclitic and introjective) group mean depression score is significantly higher than the other three groups.
DISCUSSION

Results indicate that the severity of bulimia, as measured by classic indicators of the disorder, was not predictive of level of object representation. There are several avenues of explanation that may be addressed when considering why this hypothesis was not confirmed. Both methodological and theoretical issues will be examined in this discussion.

One component often scrutinized in the object representation literature is the operationalization of the concept itself. Judgements by clinician raters, Rorschach responses, and parental descriptions written by patients have all been utilized in clinical research--they have all been criticized for their limitations in construct validity in those studies with weak or little findings. Given the elusive nature of the aspects of personality these studies attempt to investigate, and the still developing methodology available to those who study these phenomena, the measures used must be carefully evaluated. The reliability figures for the present study are somewhat lower than those presented by Blatt et al. (1979) for the measure of object representation. However, adequate
reliability was demonstrated for this measure. Also, the validity of the scoring system has been established (Blatt et al., 1979). Hence, other methodological issues should be considered.

Another variable that should be examined involves the subjects studied. Both clinical groups were comprised of individuals who met the DSM-III criteria for bulimia. The ANOVAs to determine disparity between the two groups showed little evidence of significant differences. However, more complex analyses did demonstrate subtle differences between the two groups, particularly in relation to such psychological variables as introjective depression and self-consciousness. Additionally, results indicate that severity of bulimia was relatively comparable in the two clinical groups. It would be important in future investigations to include a sample of subjects whose functioning was more disrupted by the disorder, for example those who require inpatient treatment for bulimia. This might provide more information about those individuals who fall in the extreme upper end of the severity spectrum.

Additionally, the role of the variable laxative abuse should be further addressed. In the one study (Aronson, 1986) examining conceptual level and indicators of bulimia, laxative abuse was the variable most predictive of lower conceptual levels. However, in that study all variables examined were of limited predictive value. Incidence of
laxative abuse is not included as a scoreable item on the Bulimia Test, because it shows relatively poor predictive ability, presumably due to the infrequency of this symptom. None of the subjects in the current study reported laxative abuse, which, although an infrequent behavior, may indicate that segment of the bulimic population was not assessed. Further exploration of the relationship of laxative abuse to other aspects of a patient's presentation would prove useful in clarifying remaining questions about its predictive utility.

Another difficulty with the study involves the determination of conceptual level data as ratio. Again, this is characteristic of the method of data analysis of Blatt (1979), but it has not been established that someone at conceptual level 4 is twice as "psychological developed" as someone at level 2. The frequency distributions for the clinical and control samples were normally distributed, mitigating this problem somewhat. However, the conceptual level data are interval data at best.

Also, the general issue of behavior-intrapsychic relationships should be addressed; that is, that correlations and related analyses of relationships between these two categories of observation are often found to be diminished. Thus the agreement for studying them individually and examining the dissynchrony should be considered. This may be considered analogous to a call
for studying behavioral, cognitive, and physiological dimensions independently and observing variations as they occur (Lang, 1968).

The other avenue of explanation for the nonconfirmation of the central hypotheses is a theoretical one. This argument suggests that the relationship between level of object representation and severity of bulimia is complex and not adequately addressed by such a linear model as regression analysis. Thus, some patients who are at lower conceptual levels demonstrate symptoms of bulimia that function as "sensorimotor activities," evoking the representation of the sensorimotor mother, compensating for deficits in the ability to draw on constant and enduring objects. However, for others at a higher conceptual level, the same severity of binging/purging may serve another purpose. For example, the behaviors may be a way to defend against anger or the need to assert one's self.

Striegel-Moore, Silberstein, and Rodin (1986) review literature pertaining to three questions: why are women (rather than men) the primary sufferers of bulimia; which women, in particular, are at risk; and why recently has there been an apparent increase in the incidence of the disorder. One point stressed throughout is that those at greatest risk are individuals who have accepted and internalized most deeply the sociocultural mores about thinness and attractiveness. This point will be further
addressed in the section on additional analyses. The authors also cite studies indicating that, when asked to describe themselves, girls, moreso than boys, refer frequently to the views of other people in their self-descriptions. For girls, more than boys, they conclude, self-concept is an interpersonal construct. They are distinctly vulnerable to the pressures of their sociocultural environment and they are also influenced by earlier interpersonal experiences that provide the basis for object representations. It is not surprising that individuals at similar conceptual levels might respond quite differently to sociocultural pressures. Hence one person at the iconic stage might grasp onto the part-properties aspect of popular trends and strongly adhere to current ideals of attractiveness and weight. Another at the same level might disregard these cultural norms because they are unable to integrate contradictory elements and focus on family-based notions as the ideals for beauty and attractiveness. The conceptual level may indeed be an important factor in assessing the risk for developing bulimia, but its role remains to be fully understood. A multidimensional perspective may be more appropriate for addressing the complexities intrinsic to the object relations theory of bulimia, given the heterogeneity of the population.
The last hypothesis to be examined predicted a progressive increase in conceptual level ranging from low to high when grouped into four categories on the basis of scores on the Depressive Experiences Questionnaire: anaclitic, mixture of anaclitic and introjective, introjective, and nondepressed. This would replicate the study of Blatt et al. (1982) with depressed inpatients and outpatients. In the current study, there were no significant differences between groups. Exploratory analyses comparing the four groups on other variables confirmed the finding of Blatt et al. (1982) that the mixed group was significantly more depressed than the other three groups. Also, significant differences were observed for the mother as nurturant factor. That is, the nondepressed group scored higher on this factor than did the other three groups.

Therefore, it appears that the relationship demonstrated between the two types of depression defined by Blatt et al., (1982), and conceptual level in patients whose primary or secondary diagnosis is depression may not be observed in patients whose primary diagnosis is bulimia. These results are additional data in the controversy regarding bulimia's position (or nonposition) in the affective disorders spectrum. The results do support the distinction between the four groups and severity of depression. Also, the mother as nurturant
factor finding demonstrates further empirical evidence that this factor may be an ameliorative phenomenon and certainly suggests a need for further investigation.

**Additional Analyses**

Several salient findings emerge from the additional analyses. First, again, is the striking predictive power of the father as nurturant (or nonnurturant as the case may be) factor, relative to some of the other variables. For example, in the clinical groups, although no indicators of bulimia (e.g., binging, vomiting, exercising) were predictive of conceptual level, higher father as nurturant scores were predictive of higher conceptual levels. In the control group, lower psychological distress scores were predictive of higher conceptual levels but this relationship was not demonstrated in the clinical conditions. Thus, in the face of documented psychopathology, mediating factors may influence the relationship between conceptual level and psychological distress. Across all conditions combined, the father as nurturant factor scores were predictive of conceptual level.

Examining the father as nurturant factor score more closely, it appears that higher scores on this variable may be predicted in the combined clinical conditions by lower introjective depression scores, less binging per week, and
higher psychological distress scores. This type of positive relationship with father appears to be related to less guilty and self-punitive dysphoria and less chaotic eating habits, but is compensated for with other symptoms of psychopathology. Conversely, those bulimics with less or nonnurturant fathers may be more likely to suffer from guilty depressive experience, chaotic eating, and less likely to endorse other symptoms. Recent clinical findings with bulimic patients suggest an increased incidence of family histories of alcoholism and/or incest (Hatsukami, Mitchell, Eckert, & Pyle, 1986). Krener, Abramowitz, and Walker (1986) studied the treatment outcome of 25 bulimics and found that family variables associated with maternal warmth (therapists' ratings of "mother not critical," "not controlling," "not busy") explained an appreciable portion of the variance in outcome. Yet, father variables were not studied in as much detail. Future studies should further explore the nature of the "nonnurturance" that may occur in the family environments of these patients.

Several interesting findings emerge from additional analyses involving the Bulimia Test scores. Across the two clinical conditions combined, higher BULIT scores were predicted by lower public self-consciousness scores, greater general depression scores, lower anaclitic scores, and again, lower father as nurturant scores. In addition to the impact again demonstrated by the nonnurturant
father, one sees the finding that decreased public self-consciousness predicts increased BULIT scores. Analyzing conditions 1 and 2 separately, it appears that the variable is predictive in condition 2 (those in treatment) but not in condition 1 (those bulimics not in treatment). It may be that ability to defend against what others think that has allowed these individuals to seek treatment. This lesser degree of public awareness has not been sufficient to shield these individuals from the sociocultural pressures to attain current ideals of attractiveness, however, if in fact these specific patients are vulnerable to such forces.

**Suggestions for Future Research**

Given the findings of the current study, that the relationship between level of object representation and severity of symptoms in bulimia is not linear, several suggestions for future research may be forwarded. First, it would be helpful to assess in detail individuals at each conceptual level to better determine the unique constellation of factors contributing to their presentation. Continued emphasis should be given to these formative childhood experiences that contribute to the mental schemata that guide an individual's integration of later experiences. One's experience of parents as nurturant or not, and striving or not, clearly impacts on
one's development of identity and characteristic modes of functioning.

Nonlinear models might be the next step utilized in further statistical analyses of related studies. Trend analyses would be an appropriate set of statistical techniques to further elucidate more complex relationships between the object relations and behavioral data.

That bulimic patients are a heterogeneous group of individuals is becoming increasingly empirically validated. As Streigl-Moore et al. succinctly state,

\[ \ldots \] we need diagnostic categories that allow differentiation among subgroups, which would then permit an investigation of the differential relationships among these subgroups and the various risk factors. Another question deserving further attention is the place of bulimia in the spectrum of psychiatric disorders in general and the affective disorders in particular. (1986, p. 258)

Certainly, a wide-ranging study of differences among patients within and across subgroups according to conceptual level would shed light on the relationship between character structure and the various risk factors in question. The bulimics in the current study could be categorized according to Blatt's (1974) theoretical framework for depression, although other relationships demonstrated in primarily depressed populations were not observed. Additional investigation should be focused on the utility of these and other subtypes in the assessment
and treatment of bulimia. It may be that the loss of the love object, or the loss of love by the object, may be more important in the dynamics of a subgroup of bulimics than previously noted. Another subgroup deserving of increased attention is those bulimics with a concurrent presentation of substance abuse. Recent studies (e.g., Hatsukami et al., 1986) suggests that compared to patients with a diagnosis of bulimia only, and patients with histories of affective disorders, patients with diagnoses of bulimia and substance abuse experienced a higher rate of diuretic use, financial and work problems, stealing before and after the onset of the eating disorder, previous psychiatric inpatient treatment, and greater amount of alcohol use after the onset of treatment.

Also in the initial stages of research are studies of the families of these patients. Most recent formulations conjecture that family characteristics heighten sociocultural emphases on external appearances. Others describe families with a bulimic member as sharing similarities with "psychosomatic families" (Minuchin, Rosman, & Baker, 1978), including enmeshment, overprotectiveness, rigidity, and lack of conflict resolution. However, little empirical work has been completed to support clinical reports. Intrapsychic formulations such as those reviewed in the introduction focus primarily on the mother as the caretaker and central
interpersonal influence. Thus, more programmatic research on the respective roles of the father and the mother as individuals, and on the nature of systemic relationships within the family would fill considerable gaps in the area of family variables.
Based on developmental psychological concepts derived from Piaget, Werner and developmental psychoanalytic theory, five levels of object representation are defined. Based on these theoretical formulations, the conceptual levels of parental representations are scored as follows:

1. **Sensorimotor-Preoperational (Score 1)**. The person is described primarily by his/her activity in reference to the gratification or frustration he/she provides. It is an emphasis on the person as an agent who causes the subject either pleasure or pain, making them feel good or bad. The description has a personal, subjective focus and the person is defined primarily in terms of his/her direct effect of pleasure and pain for the subject. There is little sense that the person exists, is experienced, or defined as a separate and independent entity. The description centers on the direct value of the person for the subject.

2. **Concrete-Perceptual (Score 3)**. The person is defined as a separate entity, but the definition is primarily in concrete literal terms, often characterized in terms of physical description. There is a literalness, a
globality, and a concreteness to the description. There is little emphasis on part properties, attributes, or features, but rather the person is experienced as a literal, concrete totality. Emphasis is often on what the person looks like in its external characteristics or physical properties, in a literal, concrete sense.

3. **Iconic** (Score 5-7).

(a) **External Iconic** (Score 5). A focus on part properties of the person in terms of his/her activities, but the activities and functions (in contrast to Level 1, Sensorimotor-Preoperational) are uniquely the person's and have little or no direct and explicit reference to the gratification or frustration of the subject. The activities are not directly need gratifying for the subject, but rather the focus is on the person as a separate entity in terms of his/her functional activities and attributes.

(b) **Internal Iconic** (Score 7). The person is described in terms of his/her attributes and part properties, but not in terms of what the object does but rather what the person thinks, feels, and values. The description is directed towards internal dimensions.

In both the external and internal iconic levels the descriptions are predominantly one-sided and unidimensional. They do not describe a complexity of actions, feelings, or values, in which there are levels
(for example, manifest behavior versus more latent feelings). There is no recognition of subtlety, apparent contradiction, complexity, levels, or development over time. The descriptions focus on either external or internal attributes, values, principles, and feelings, and are predominantly one-sided and not integrated.

4. **Conceptual (Score 9).** The person is described in a way that integrates all of the prior levels. The total description indicates that there are a wide range of levels on which the person is understood and experienced. There is an appreciation of internal dimensions in their own right as well as in contrast to the external. Also, there may be a time line in which there is an appreciation of changes and variation. There are a variety of dimensions which are integrated and in which apparent contradictions are resolved. Thus, there is a sense of disjunctiveness in which the manifest, literal, and concrete may appear in contradiction to more internal dimensions. But the apparent contradiction is resolved in an integrated, complex synthesis. At this level there can be comments about the need gratifying attributes, or physical and functional characteristics of the parent, but the description indicates that the person is experienced in complex, integrated ways and that a number of different attributes and functions are integrated in a cohesive complex synthesis.
REFERENCES


BIOGRAPHICAL SKETCH

Stephanie Haymaker was born in Philadelphia, Pennsylvania, and was raised primarily in southern New Jersey. She graduated with honors in psychology from New York University in 1982 and was elected to the Phi Beta Kappa Honor Society. Her senior thesis examined consistency in coping behaviors. In 1984, she received her Master of Science degree from the University of Florida. The focus of study for her master's thesis was the psychomaintenance role of alexithymia in a chronic pain population. Ms. Haymaker entered doctoral candidacy in the fall of 1986 at the University of Florida. She is currently working in a day-treatment program for adolescents, providing individual, group, and family psychotherapy. Her clinical and research interests include psychodynamic psychotherapy with adolescents and adults, psychotherapy outcome, and health psychology. She is married and lives in Woodbridge, New Jersey.
I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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This dissertation was submitted to the Graduate Faculty of the College of Health Related Professions and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

August, 1988

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