

AN EMPIRICAL EXPLORATION OF THE DYNAMICS OF ANOREXIA NERVOSA: *Representations of Self, Mother, and Father*

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Extensive clinical reports and a few empirical investigations indicate that a disrupted relationship with mother and a distorted sense of self are central to Anorexia Nervosa (AN). The present study explores these observations further using the Differentiation–Relatedness Scale (D–RS) to compare AN patients' descriptions of mother, father, and self with those of matched general psychiatric (PC) and nonclinical controls (NC). Results indicate that the AN group is distinguished from the PC group by significantly lower D–R (Differentiation–Relatedness) for mother, and significantly higher D–R for self, as well as a tendency for greater DEQ Self–Criticism ($p < .05$, one–tailed). Stepwise discriminant analysis indicates that an equation of D–R Self, D–R Mother, and DEQ Neediness, as well as the interaction of D–R Mother and DEQ Neediness, significantly ($p < .0001$) discriminates 80.5% of the total sample (66.7% of the AN, 73.3% of the PC, and 87.2%

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of the NC group). These findings support and elaborate clinical reports and provide further understanding of the personality dynamics and character pathology involved in this complex and sometimes life-threatening disorder.

Keywords: differentiation, relatedness, object-representation, DEQ, Anorexia-Nervosa

Extensive clinical observations of Anorexia Nervosa (AN) indicate that disruptive early experiences with parents, especially the mother, have a significant role in this debilitating, dangerous, and often treatment-resistant disorder (Canetti, Kanyas, Lerer, Latzer, & Bachar, 2008). Problematic early parent–child relationships appear to result in a limited capacity for mature interpersonal relatedness and in a distorted sense of self.

Disruption in mother–child relations appears central in AN. Ritvo (1976) suggests that AN is an expression of a daughter’s rage and aggression toward her mother that derives from the reactivation of earlier conflicts. Selvini Palazzoli (1974) also views AN as stemming from a daughter’s experience of her mother as overprotective and unable to allow her to become a separate person, with the result that the daughter feels ineffective. Sours (1974) proposes that the mother is perceived as imposing her wishes upon her daughter, dominating and controlling her to attain submission and perfection from her, forcing her into passive submission and creating a sense of fusion. Hamburg (1999) asserts that the AN daughter feels surrounded by her mother’s “all-consuming, insatiable demand” to be absolutely needed. He views AN as a disturbance in the interplay of food and love and nurturance, demand and desire, in the early mother–daughter relationship, that leads to self-starvation in adolescence: the refusal of food is the end point of “the absolute loss of self” (p. 750).

By controlling her body in an extreme way, AN patients create the sensation that time and development have stopped (Beresin, Gordon, & Herzog, 1989), and establish a distorted sense of autonomy and effectiveness (Bruch, 1965, 1970). Birksted–Breen (1989) views the AN girl as having both a wish for and a fear of fusion with the mother, and the disorder as an attempt to establish her body and herself as separate from her mother. Zerbe (1993) considers the refusal of food as “an autonomous statement, *par excellence*: ‘I don’t need you. I don’t need anything. I don’t even need food to survive. I am totally independent’” (p. 95). Ritvo (1976) interprets the symptomatic behavior as a displacement of unexpressed anger at the mother on to the AN patient’s own body:

“the rage at the mother, which has been externalized and displaced on to food, has its roots in the repressed oral sadomasochistic conflicts with the mother. The symptoms frequently occur upon separation from the mother when the adolescent goes away from home. It is the introjected mother whom the adolescent is starving for and trying to control and punish” (p. 132).

Lawrence (2001) sees eating disorder symptoms as a manic defense through which the AN girl struggles to control the internal representation of the parent, to the point of determining who lives and who dies. The violence that eating disordered patients commit on their bodies is “a reflection of the violence that is felt to be done to the internal parents and their relationship” (p. 52).

Several clinical investigators consider that the father is experienced by his AN daughter as minimally involved, inadequately responsive to her, and unable to foster her autonomy by providing “a benevolent disruption of the mother–child symbiosis.” He is

unable to facilitate the daughter's sense of being special and lovable (Hamburg, 1999; Sours, 1974; Zerbe, 1993, pp. 79, 90).

These clinical observations of AN patients' experiences of a disrupted relationship with mother and a distant uninvolved relationship with father are corroborated by interviews of 13 former AN patients conducted by Beresin, Gordon, and Herzog (1989). In their study, AN patients described their mothers as intrusive, over-involved, excessively concerned with appearance, and lacking sensitivity to their needs and abilities. The AN patients described their fathers as distant, successful, and over-involved with work to the exclusion of the family. AN patients seem to have a sense of loyalty and adherence to the covert demands of their parents, so that they disavow a desire to be independent and, thus, are unprepared for adolescence. In the narratives of 11 AN patients in recovery, Elliott (2010) finds that these young women perceive their fathers as unreliable and intermittently available, often starting in adolescence. They report feeling pressure to grow up quickly, control their needs, and preserve their parents' marriage, all of which Elliot views as creating difficulty with separation-individuation.

Besides describing experiences of disruptive parent-child relationships in AN, clinical accounts and empirical investigations highlight an impaired sense of self as a central feature in the etiology and maintenance of the eating disorder. Bruch (1962, 1973, 1978, 1988), for example, reports a paralyzing sense of ineffectiveness and helplessness—a sense of self she portrays as underlying difficulties with separation and autonomy for AN patients (Bruch, 1965, 1970; Selvini Palazzoli, 1974; Sours, 1974).

Several empirical studies, more recently, attempt to compare the parent-child relationships in AN with those of various control groups. Pike et al. (2008), in a study of risk factors for AN, compare AN patients with two control groups—psychiatric patients without an eating disorder and healthy young women. They find that AN patients share some risk factors with other psychiatric patients; but some risk factors related to the family were significantly more severe in AN, namely, family discord and parental demands, as well as higher negative affectivity and perfectionism in the sense of self. Similarly, Deas, Power, Collin, Yellowlees, and Grierson (2011) find that AN patients and other psychiatric patients share many risk factors, such as low parental care, but they differ in that AN patients experience more maternal control. Cunha, Relvas, and Soares (2009) find that AN patients, as compared with girls without an eating disorder, perceive less emotional involvement with and trust in their parents, less cohesion, poorer coping capacity for stressful events, and more self-blame and guilt for family problems.

In an earlier empirical investigation of AN, Bers and colleagues (Bers, Blatt, & Dolinsky, 2004) compare the spontaneous self-descriptions of hospitalized AN patients with those of both psychiatric inpatients without an eating disorder and healthy adolescent and young adult women. Based on scales from the Assessment of Self Descriptions (Blatt, Bers, & Schaffer, 1993), Bers et al. find that AN patients' differentiation and sense of interpersonal relatedness are similar to those of general psychiatric patients, and that both patient groups are significantly lower on these scales than nonclinical controls (Bers et al., 2004). Bers et al., more importantly, also find that AN patients, as compared with other psychiatric patients, are significantly more self-reflective, less concrete, and more internally focused, with a more contradictory and evaluative style that contains harsh judgments of the self. Although the self-descriptions of both the AN group and the general psychiatric patients are negative, this self-view of AN patients occurs in a context of intense and harsh self-scrutiny and is accompanied by openly expressed, depressive, and anxious affect. Thus, AN patients appear to be engaged in a desperate and distorted

struggle to feel adequate, worthy, and effective, but in a way that leaves them feeling even more inadequate, unworthy, and ineffective (Bers et al., 2004).

To explore more fully the findings from clinical reports and empirical studies of disruptive family interactions and child rearing practices, and their possible impact on the sense of self of AN patients, the present study explores AN patients' representations of the mother and the father, as well as of the self, using the Differentiation–Relatedness Scale (D–RS; Diamond, Blatt, Stayner, & Kaslow, 1991) of the Object Relations Inventory (ORI; Blatt, Stayner, Auerbach, & Behrends, 1996) which assesses the developmental level of D–R in spontaneous descriptions of self and significant others. We also examine the relationship of these aspects of the descriptions of self, mother, and father to personality qualities (Dependency, Self-Criticism, and Efficacy) assessed by the Depressive Experiences Questionnaire (DEQ; Blatt, D'Afflitti, & Quinlan, 1976), including the two subfactors recently identified within the DEQ Dependency–Interpersonal Factor, Neediness and Connectedness (Blatt, Zohar, Quinlan, Zuroff, & Mongrain, 1995; Rude & Burnham, 1995). Our hypothesis is that AN patients' difficulty negotiating the normal adolescent developmental tasks of separation–individuation and the establishment of mature interpersonal relationships will be manifest in impairments in cognitive, emotional, and developmental aspects of their descriptions of their parents and by distortions in their self-representations.

Method

Participants

Fifteen inpatients diagnosed with Anorexia Nervosa (AN, $n = 15$) were compared with a matched sample of 15 psychiatric inpatients without an eating disorder (PC, $n = 15$), and to a matched sample of 47 nonclinical volunteers (NC, $n = 47$) from a suburban high school and a nearby university (Bers & Quinlan, 1992).

AN patients and PC patients were selected by a member of the hospital staff because they met criteria for one of the two groups. An investigator confirmed the diagnosis of AN during interviews, and diagnoses of the PC patients by reviewing their medical charts. Ten percent of the patients declined to participate: three of 18 AN patients and none of the 15 PC patients. These three AN patients did not differ significantly from the 15 who participated on degree of weight loss, age, or socioeconomic status (SES).

AN Group

Fifteen hospitalized young women with a mean age of 18.2 years (from 15 to 24 years) met criteria for a diagnosis of AN as specified by the DSM (American Psychological Association, 1980) with the addition of Garfinkel and Garner's (1982) recommendation to include individuals who weighed 15% or more below the expected weight for their height and age. All of these women scored above the 20-point cut-off on the Eating Attitudes Test (Eat–26; Garner, Olmsted, Bohr, & Garfinkel, 1982), which measures disturbed eating patterns.

Because AN patients vary in their ability to function during the acute phase of their illness, they participated at different points in their hospitalization. The average age at onset of illness was 14.9 years (range of 12 to 18 years) and the average length of illness was 2.9 years (range of 6 months to 10 years). The average number of hospitalizations for the AN group (including the present hospitalization) was 3.2 (range of 1 to 10 times) and the average length of their current hospitalization was 105 days (range of 28 to 415 days).

Their average SES, calculated by highest SES of a parent, (Hollingshead, 1957) was 1.87, ranging from Class I (upper) to Class III (middle). All AN patients were White.

PC Group

Fifteen hospitalized young women in the PC group with a mean age of 17.3 years (from 15 to 23 years) met the following criteria: (a) never had an eating disorder, (b) scored below the 20-point cut-off on the Eat-26, and (c) weighed between 15% above and 15% below that expected for their height and age. To control for severity of illness, none of these psychiatric patients had a history, or current diagnosis, of psychosis or an organic brain syndrome. The diagnoses of the PC patients assigned by the hospital staff included: adjustment, substance abuse, dysthymic, somatization, conduct, identity, and oppositional disorders.

The average age of onset of illness for the PC patients was 14.1 years (range of 11 to 18 years) and the average length of the illness was 3.0 years (range of 3 months to 11 years). They had been hospitalized an average of 1.3 times including the present hospitalization (range of 1 to 2 times); and the average length of the present hospitalization was 61 days (range of 34 to 89 days). The average SES for the psychiatric controls' families was 2.60, ranging from Class I (upper) to Class IV (lower-middle class). All of the PC patients were White.

NC Group

The NC group of 47 young women, with a mean age of 18.6 years (from 14 to 24 years), was recruited from a public high school and a private university. The high school students ($n = 14$) were selected randomly from class lists. A letter describing the project and a consent form were mailed to each student's parents or guardian. The return rate was 26%. The college students ($n = 33$) were drawn from an introductory psychology course or recruited from an advertisement in a university community newspaper. All the women in the NC group weighed between 15% above and 15% below their ideal weight for height and age, and scored below the 20-point cut-off on the Eat-26. The average SES of their families was 2.13, ranging from Class I (upper class) to Class V (lower class). Seven of the nonpatient subjects belonged to ethnic minority groups.

Comparison of the Two Patient Groups

The PC and the AN patient groups did not differ significantly on age, IQ, level of education, SES of the family, height, age of onset of the illness, length of illness, number of hospitalizations, length of the present hospitalization, and DSM Axis V (American Psychological Association, 1980), which assesses the highest level of functioning over the past year.

Measures

Measure of Differentiation and Relatedness

The descriptions of mother, father, and self were evaluated using the Differentiation-Relatedness Scale (D-RS; Diamond et al., 1991) of the Object Relations Inventory (ORI; e.g., Blatt et al., 1996) by a judge who had established reliability in scoring the D-RS on another sample. Drawing from theoretical formulations and clinical observations about very early processes of boundary articulation (Blatt & Wild, 1976; Blatt, Wild, & Ritzler, 1975; Jacobson, 1964; Kernberg, 1976), processes of separation-individuation (Coonerty,

1986; Mahler, Pine, & Bergman, 1975), the formation of the sense of self (Stern, 1985), and the development of increasingly mature levels of self-definition and interpersonal relatedness (Blatt & Blass, 1996), Diamond, Blatt, Stayner, and Kaslow (1991) developed a 10-point scale to assess the degree of differentiation and relatedness in these descriptions. In general, higher ratings of D–R in descriptions of self and others indicate increased articulation and stabilization of a sense of others (object constancy) and of the self and an increased appreciation of mutual, emphatically attuned interpersonal relatedness.

The D–R Scale identifies the following 10 points: lack of basic differentiation between self and others (Levels 1 and 2); use of mirroring (Level 3); self-other idealization or denigration (Level 4); oscillation between polarized negative and positive attributes as maneuvers to consolidate and stabilize representations (Level 5); emergent differentiated, constant, and integrated representation of self and other, with increasing tolerance for complexity and ambiguity (Levels 6 and 7); representations of self and others as empathically interrelated (Level 8); representations of self and other in reciprocal and mutually-facilitated interactions (Level 9); and reflectively constructed integrated representations of self and others in reciprocal and mutual relationships (Level 10).

Measure of Depressive Experiences

The Depressive Experiences Questionnaire (DEQ; Blatt et al., 1976) assesses personality attributes reflected in general feelings and attitudes reported by depressed patients, rather than the manifest symptoms of clinical depression. Factor I, Dependency, assesses the subject's perceived quality of interpersonal relations. Factor II, Self-Criticism, assesses the quality of feelings about the self including feelings of failure, guilt, and self-criticism. Factor III, Efficacy, assesses feelings of inner strength and self-confidence about one's resources and capacities. Factor scores are computed for each subject using the means, standard deviations, and factor score coefficients of the original sample of 500 college women. Extensive research confirms this factor structure in both nonclinical and clinical samples in a wide range of cultures and indicates the construct validity of the three DEQ factors (see review in Blatt, 2004). Subsequent investigation (Blatt et al., 1996; Blatt et al., 1995; Rude & Burnham, 1995) indicates the Dependency–Interpersonal factor of the DEQ can be deconstructed into two subfactors: a less adaptive Neediness subfactor and a more adaptive Connectedness subfactor.

Measure of Intelligence

The Similarities subtest of the Wechsler Adult Intelligence Scale—Revised (WAIS–R; Wechsler, 1981), or the Wechsler Intelligence Scale for Children—Revised (WISC–R; Wechsler, 1974) was used as an estimate of intelligence (IQ). This subtest is less reflective of academic experience than others (Allison, Blatt, & Zimet, 1968), and, thus, may be less impacted by school difficulties that PC patients may have and by the over achievement characteristic of many AN patients (Bruch, 1978; Selvini Palazzoli, 1974).

Measure of Disordered Eating Behavior

The EAT–26 (Garner et al., 1982), an abbreviated 26-item version of the Eating Attitudes Test (Garner & Garfinkel, 1979), was used to measure the presence of disturbed eating patterns. A cut-off score of 20 was suggested by Garner et al. (Garner et al., 1982), above which eating patterns are disturbed.

Procedure

Each participant was interviewed individually, first gathering demographic information, weight history, and (for patients) a brief psychiatric history. For AN patients, the diagnosis assigned by the hospital staff was confirmed by the interviewer using a series of diagnostic questions from the AN section of the Kiddie-Schedule for Affective Disorders and Schizophrenia-E (Gammon et al., 1983; Orvaschel, Puig-Antich, Chambers, Tabrizi, & Johnson, 1982). All subjects were then asked to describe themselves and each of their parents; their responses were recorded verbatim. If participants asked questions about the task, they were encouraged to describe themselves and their parents in whatever way they wished. Subjects were stopped after 15 minutes if they had not already finished. The Appendix presents prototypic self, mother, and father descriptions and the D-R scores of three subjects, one from each group: an AN patient, a PC patient, and an NC individual.

In the final part of the interview, the DEQ, the Similarities subtest of the WAIS-R or WICS-R, and the EAT-26 were administered.

Statistical Analyses

First, group differences in demographic variables and symptoms of eating disorders were assessed with one-way analysis of variance (ANOVA) followed by planned comparison tests for significant differences between the subgroups. Next, ANOVA was used to assess the relationships among the three independent groups (AN, PC, and NC groups) on the dependent variables (D-R mother, D-R father, and D-R self and DEQ subscales: Self-Criticism, Efficacy, Neediness, and Connectedness). Planned comparison tests were used to determine significant differences between the subgroups. Then, correlations between the D-R measures and the EAT-26 scores, and between the D-R measures and the DEQ scores, were calculated. Finally, a discriminant classification analysis examined the degree to which scores on Self-Criticism, Efficacy, Neediness, and Connectedness, D-R Self, D-R Mother, and D-R Father, and the interactions of D-R Mother \times Neediness, D-R Self \times Self-Criticism, D-R Self \times Efficacy, D-R Father \times D-R Mother, D-R Father \times Self-Criticism, D-R mother \times D-R Self, Neediness \times D-R Self, and D-R Self \times D-R Mother \times Neediness could accurately classify (the differences and accuracy of classification) participants into their respective diagnostic groups: AN, PC, and NC. Two-tailed tests of significance were used unless indicated otherwise.

Results

Preliminary Analyses

Classifying Variables for the AN Patients and Two Control Groups

Preliminary analyses compared the AN patients and two control groups on classifying variables. As designed, no significant differences were found among the three groups (AN, PC, and NC) in age, IQ, years of education, and SES of their families (see Table 1). Significant differences were obtained for Weight, Lowest Weight, and EAT-26, consistent with the classification of the groups. Planned comparisons indicated that AN patients were significantly lower on expected weight for age compared with PC, $F(1, 74) = 22.65, p < .0001$, and NC, $F(1, 74) = 53.91, p < .0001$, groups, with nonsignificant differences between the PC and NC groups, $F(1, 74) = 2.20, ns$. Moreover the AN group was

Table 1
Mean Scores and Standard Deviations on Classifying Variables for AN Patients and Two Control Groups

Variable (range)	Sample						Univariate <i>F</i> value (2, 74)
	AN		PC		NC		
	(n = 15)		(n = 15)		(n = 47)		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
1. Age (years; 14.6–24.6)	18.17	2.27	17.29	1.96	18.60	2.57	1.68, <i>ns</i>
2. WAIS–R or WISC–R, Similarities Subtest (7–17)	12.20	1.70	11.00	2.59	11.83	2.12	1.28, <i>ns</i>
3. Level of Education (years; 9–17)	12.07	1.62	11.20	1.42	12.72	2.47	2.92, <i>ns</i>
4. SES (1–5) ^a	1.87	0.83	2.60	1.12	2.13	1.13	1.81, <i>ns</i>
5. Height (feet; 4.90–5.90)	5.35	0.25	5.36	0.22	5.43	0.23	0.82, <i>ns</i>
6. Weight (%; 57.6–114.4) ^b	79.00 _a	11.00	98.00 _b	6.00	100.00 _b	7.00	39.70*
7. Lowest weight (%; 54.40–108.20) ^b	67.00 _a	8.63	91.00 _b	7.36	93.00 _b	6.10	82.79*
8. EAT–26 (0–60)	44.93 _a	11.80	6.27 _b	5.15	6.04 _b	4.78	199.79*

Note. Means sharing a common subscript do not differ significantly from each other using Newman–Keuls tests. WAIS–R = Wechsler Adult Intelligence Scale–Revised; WISC–R = Wechsler Intelligence Scale For Children–Revised; SES = Socioeconomic Status; EAT = Eating Attitudes Test.

^aOn the basis of Hollingshead (1957): 1 = upper class; 5 = lower class. ^bPercentage of weight expected for subject's height and age. (Metropolitan Life Insurance Company, 1983).

* $p < .001$.

significantly higher on the EAT–26 compared with PC, $F(1, 74) = 245.95, p < .0001$, and NC, $F(1, 74) = 377.23, p < .0001$, groups, with nonsignificant differences between PC and NC groups, $F(1, 74) = 0.013, ns$. Finally, the AN group had significantly lower scores for Lowest Weight in the past compared with the PC, $F(1, 74) = 51.25, p < .0001$, and the NC, $F(1, 74) = 115.32, p < .0001$, groups with nonsignificant differences between PC and NC groups, $F(1, 74) = 3.17, ns$. Thus, although the three groups were not significantly different in height, AN patients were significantly lower in percentage of expected weight for age and height at the time of the interview and in their lowest weight, as well as higher in scores on the EAT–26 than the two control groups.

DEQ and the D–R Measures

Table 2 provides means and standard deviations for the three groups on the D–R Scale for mother, father and self, as well as for the DEQ factors. Results indicated that the three groups were significantly different on the D–R scores for self and their parents, as well as on the DEQ measures of Neediness, Self-Criticism, and Efficacy, but not significantly different on Connectedness. Figure 1A illustrates the differences among the three groups on the D–R scores and Figure 1B their differences on the DEQ factors.

Planned comparisons indicated that in contrast with the NC group, AN subjects had: significantly lower scores on D–R Self, $F(1, 74) = 18.47, p < .0001$; D–R Mother, $F(1, 74) = 29.79, p < .0001$; and D–R Father, $F(1, 74) = 14.80, p < .001$; significantly higher scores on DEQ Self-Criticism, $F(1, 74) = 16.98, p < .0001$, and DEQ Neediness, $F(1, 74) = 19.53, p < .0001$; and significantly lower scores on Efficacy, $F(1, 74) = 5.34, p < .02$. Moreover, relative to the NC group, the PC group had significantly lower scores on D–R Self, $F(1, 74) = 53.53, p < .0001$; D–R Mother, $F(1, 74) = 6.18, p < .02$; and D–R Father, $F(1, 74) = 11.51, p < .001$; significantly higher scores on DEQ Self-

Table 2
Mean Scores and Standard Deviations On DEQ and D-R Measures for AN Patients and Two Control Groups

Measure	Sample						Univariate <i>F</i> value (2, 74)
	AN		PC		NC		
	(n = 15)		(n = 15)		(n = 47)		
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
DEQ							
1. Self-criticism	1.10	.85	.44	1.07	-.22	1.14	9.077***
2. Efficacy	-.33	.82	-.40	1.26	.32	.86	4.804**
3. Neediness	.89	.62	.55	.75	-.13	.83	11.709***
4. Connectedness	.53	.73	.143	1.05	.06	.79	1.828, <i>ns</i>
D-R							
4. Self	5.73	.96	4.93	.88	6.87	.88	30.158***
5. Mother	4.33	.62	5.33	1.23	6.17	1.22	15.617***
6. Father	4.93	1.16	5.07	.96	6.06	.94	10.62***

** $p < .01$. *** $p < .0001$ (two-tailed).

Criticism, $F(1, 74) = 4.20, p < .04$; and DEQ Neediness, $F(1, 74) = 8.90, p < .003$; and significantly lower scores on DEQ Efficacy, $F(1, 74) = 6.57, p < .01$.

More importantly, when comparing the AN and PC groups, the AN group had significantly lower scores on D-R Mother, $F(1, 74) = 5.82, p < .02$, and significantly higher scores on D-R Self, $F(1, 74) = 6.01, p < .02$. No significant differences were found between the AN and PC groups on DEQ Efficacy, $F(1, 74) = 0.04, ns$; on DEQ Neediness, $F(1, 74) = 1.36, ns$; or on D-R Father, $F(1, 74) = 0.14, ns$. When a one-tailed test of significance was used, the AN group had significantly higher DEQ Self-Criticism than the PC group, $F(1, 74) = 2.83, p < .05$.

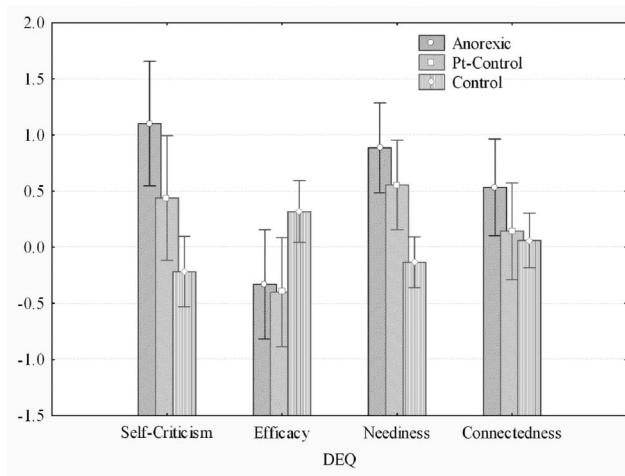
Correlations Between the D-R Measures and the EAT-26

Moreover, it appeared that the D-R scores were a good proxy for assessing psychopathology across domains ($n = 77$). In this case, eating disordered behaviors and attitudes, as assessed by the EAT-26, were significantly associated with D-R scores of Mother ($r = -0.51, p < .001$), Father ($r = -0.27, p = .016$), and Self ($r = -0.24, p = .038$).

Correlations Between the D-R Measures and the DEQ

The D-R scores were also found to be an important factor in assessing vulnerability/resiliency across the AN and the two control groups ($n = 77$): Self-Criticism correlated significantly with D-R Mother ($r = -.43, p < .0001$) and D-R Father ($r = -.29, p = .011$) but less so with D-R Self ($r = -.19, p = .097$). DEQ Neediness was also significantly associated with all the D-R scales ($r = -.39, p < .0001, r = -.28, p = .012$ and $r = -.31, p = .006$ for D-R Self, Mother, and Father, respectively). DEQ Efficacy was significantly associated with all D-R scales ($r = .44, p < .0001, r = .33, p = .004$ and $r = .31, p = .006$ for D-R Self, Mother, and Father,

A). DEQ Scores



B). D-R Scores

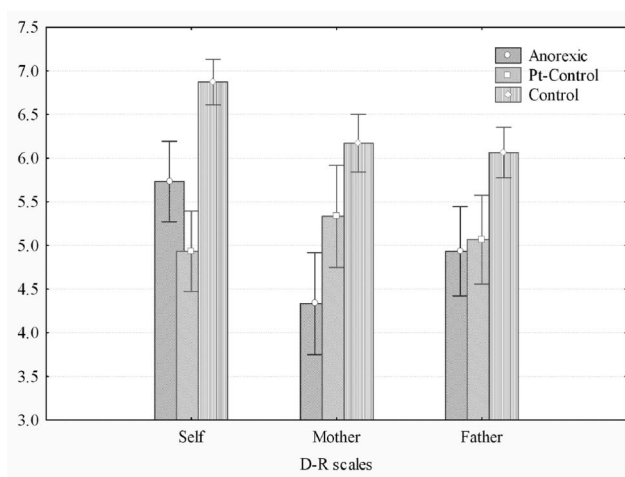


Figure 1. Mean scores for the three groups of subjects.

respectively). Finally, DEQ Connectedness was not significantly associated with the D-R scales ($r = .07$, $r = .05$, and $r = .09$ for D-R Self, Mother, and Father, respectively). These low to moderate correlations indicated that although D-R and DEQ scores were correlated they were not redundant constructs.¹

¹ Although one might argue that the ORI variables measure personality aspects that are highly related to the DEQ factors, and so including them together creates multicollinearity that might underestimate the ORI's effect, it is important to note that the Eigenvalues of the scaled and uncentered cross-products matrix, condition indices, and variance decomposition proportions, along with variance inflation factors (VIF) and tolerances from multicollinearity analyses, indicate the absence of any multicollinearity.

Discriminant Analysis

Only variables that significantly differentiated the three groups were included in the discriminant analysis. Therefore, according to the analyses presented in Table 2, DEQ Connectedness was eliminated from further analyses.

A standard discriminant classification analysis subsequently examined the degree to which scores on DEQ Self-Criticism, Efficacy, and Neediness, on D-R Self, Mother, and Father, and on the various interaction terms of: (a) D-R Mother \times Neediness, (b) D-R Self \times Self-Criticism, (c) D-R Self \times Efficacy, (d) D-R Father \times D-R Mother, (e) D-R Father \times Self-Criticism, (f) D-R Mother \times D-R Self, (g) Neediness \times D-R Self, and (h) D-R Self \times D-R Mother \times Neediness, could accurately classify the participants into their respective diagnostic groups: AN, PC, and NC.

The results indicated a significant discriminant function, Eigenvalue = 1.99, Canonical R = 0.82, Wilks' λ = 0.51, $\chi^2(14, N = 77) = 45.60, p < .0001$. Using a jackknife classification procedure (e.g., Lachenbruch, 1967), which controlled for the tendency to overestimate accuracy in classification rates, the rate of correct classification for the entire sample was 88.3%, with 73.3% of the AN, 86.7% of the PC, and 93.6% of the NC groups being classified correctly, based on Self-Criticism, Efficacy, and Neediness, D-R Self, D-R Mother, and D-R Father, as well as the interaction terms of D-R Mother \times Neediness, D-R Self \times Self-Criticism, D-R Self \times Efficacy, D-R Father \times D-R Mother, D-R Father \times Self-Criticism, D-R mother \times D-R Self, D-R Father \times D-R Self, Neediness \times D-R Self, and D-R Self \times D-R Mother \times Neediness.

A *stepwise* method selected variables into the equation to determine the variables that gave the highest predictive value for differentiating the three groups. This method allows only variables which improved the fit of the model at the $p < .05$ level to enter the equation. As in the previous discriminant analysis comparing the AN, PC, and NC groups, the same variables were allowed into the equation. As presented in Table 3, the *stepwise* procedure indicated that only D-R Self, D-R Mother, Neediness, and D-R Mother \times Neediness significantly entered into the discriminant function, Eigenvalue = 1.057, Canonical R = 0.72, Wilks' λ = 0.60, $\chi^2(3, N = 77) = 36.13, p < .0001$. Compared with the previous function, this more parsimonious function effectively classified: 80.5% of the entire sample, 66.7% of the AN, 73.3% of the PC, and 87.2% of the NC samples.

Table 3 shows the order of variables entered into the equation according to their ability to improve the fit of the model: the first to be entered was D-R Self, then D-R Mother, then Neediness, and finally the D-R Mother \times Neediness interaction. The remaining variables did not improve the model. Thus, D-R Mother and D-R Self scores were the prime discriminant classification variables among these three groups, followed by Neediness and the D-R Mother \times Neediness interaction.

In order to express the D-R Mother \times Neediness Interaction, a $3 \times (2)$ GLM repeated measure ANOVA was conducted with the three groups as a between subjects' variable

Table 3
Summary of Stepwise Analysis

Variable enter/remove	Step	F to enter/rem	df	p <	Lambda	F value	df	p <
D-R Self	1	30.16	2, 74	0.0001	0.55	30.16	2, 74	0.0001
D-R Mother	2	9.25	2, 73	0.001	0.44	18.55	4, 146	0.0001
Neediness	3	4.52	2, 72	0.01	0.39	14.40	6, 144	0.0001
D-R Mother \times Neediness	4	11.43	2, 71	0.0001	0.30	14.91	8, 142	0.0001

and a repeated measure with two levels: D–R Mother and Neediness. D–R scores were standardized in order to be compared with the Neediness scores. Results (see Figure 2) indicated a significant D–R Mother \times Neediness interaction, $F(2,74) = 26.61, p < .0001$, Partial eta-squared = 0.41, Observed power = .99.

Probing this interaction revealed that: (a) The AN sample had significantly higher scores on Neediness than on D–R Mother ($t = -6.20, p < .0001$); (b) PC subjects had significantly higher scores on Neediness than on D–R Mother ($t = -2.62, p < .01$); and (c) the difference between Neediness and D–R Mother in the AN sample was significantly greater than this difference in the PC group ($t = -2.53, p < .05$). In the NC group, the level of D–R Mother was significantly higher than the level of Neediness ($t = 3.07, p < .01$).

Discussion

Extensive clinical reports over many years, as well as more recent empirical investigations, indicate that a disturbed relationship with the mother, a distant uninvolved relationship with the father, and a distorted sense of self are central in the psychopathology of AN. The present study explores these dynamics further by evaluating descriptions given by AN inpatients of their parents and of themselves, and comparing these descriptions with similar ones obtained from matched samples of general psychiatric inpatients and of normal controls. We also study the sense of self of AN patients further by comparing the AN, PC, and NC individuals on a self-report personality measure, The Depressive Experiences Questionnaire (DEQ), that assesses the level of interpersonal relatedness (i.e., Neediness and Connectedness) and of self-definition (i.e., Self-Criticism and Efficacy).

The findings of our empirical study clearly support clinical reports that AN patients often experience a disrupted relationship with their mothers and have a defensively overdeveloped, yet highly self-critical, sense of self. We also find evidence of an intense, but well-defended, feeling of neediness in AN patients.

Our results indicate that the AN, PC, and NC groups differ significantly on the D–R scales when applied to descriptions of themselves and their mothers. Both AN and PC

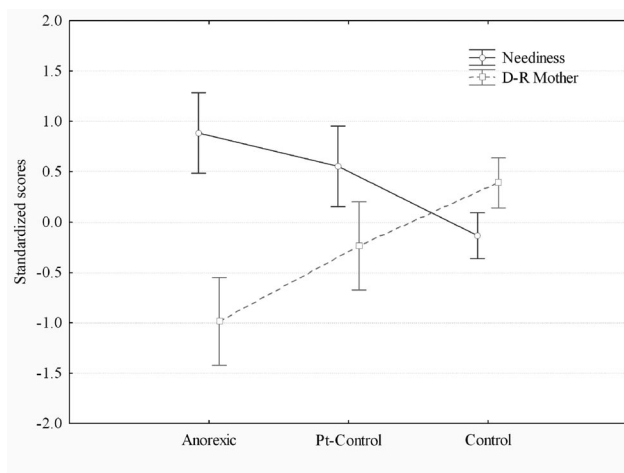


Figure 2. D–R Mother \times Neediness interaction.

groups, as compared with the NC group, have developmentally less mature D–R scores on descriptions of their mothers, their fathers, and themselves. The two clinical groups also differ from the NC group on three of the four DEQ factors (Neediness, Self-Criticism, and Efficacy). More importantly, the AN patients are distinguished from the PC patients by their significantly lower D–R scores in their descriptions of their mothers, but by a significantly higher D–R score for their self-descriptions. The AN group also tends ($p < .05$, one-tail) to be more self-critical on the DEQ than the PC group.

It is noteworthy that the self-descriptions of AN patients have a level of differentiation and relatedness elevated above the PC patients despite the finding that their descriptions of their mothers have a lower level of differentiation and relatedness than the PC patients. Also noteworthy is the finding that the interaction between the D–R Mother score and DEQ Neediness significantly differentiates the three groups, indicating that the low level of differentiation and relatedness in AN patients' description of their mothers (low D–R Mother) is also characterized by a high level of Neediness as assessed on the DEQ.

The combination of an impaired representation of the mother with intense feelings of neediness suggests that behind the repudiation and rejection of food and nurturance found in AN lies a desperate longing for care and attention from the mother. This intense feeling of neediness appears to be defended against by the relatively highly developed sense of self (significantly higher score on D–R Self for AN vs. PC groups). Yet this hypertrophic sense of self of the AN patients is infused with a considerably high level of self-criticism. The highly self-critical sense of self for AN patients suggests that they may feel undeserving of the love and nurturance they desperately desire and that these longings are defended against with “counteractive” introjective defenses (Blatt, 2008; e.g., projection, reversal, reaction formation, and overcompensation)—a defensive style typical of self-critical (introjective) individuals (Blatt, 2008; Blatt & Shichman, 1983). These findings of high self-criticism and a relatively overdeveloped sense of self (indicated by hyper-reflectivity) are consistent with the characteristics of these AN patients found in our previous study (Bers et al., 2004).

But most importantly, these “introjective” defenses in AN occur in the context of intense unconscious “anaclitic” longings. This complex, atypical defensive structure (introjective defenses against unconscious anaclitic longings) was noted previously in an individual with suicidal tendencies (Behrends & Blatt, 2003; Blatt, Luyten, & Corveleyn, 2005). The occurrence and nature of this unique and generally atypical defensive style awaits further investigation.

Our findings of a well-defended, intense feeling of neediness in a significant number of these AN patients has important therapeutic implications. It suggests that for many AN patients it is crucial to address in psychotherapy not only the dangerous, self-destructive symptoms of malnutrition and starvation, but also the underlying anaclitic needs that are intensely defended against by the refusal to accept nurturance. When these feelings and dynamics are expressed and enacted in the transference, the capacity of the therapist to recognize, articulate, and work with these anaclitic longings in the therapeutic relationship, therefore, should play an important role in the treatment process.

In terms of methodological issues, the findings of the present study demonstrate the value of the ORI (e.g., Blatt et al., 1993) and the D–R Scale (Diamond et al., 1991) in evaluating the quality of object relations. The ORI provides a method for systematically investigating clinically relevant dimensions in a broad range of psychopathology (e.g., Blatt & Auerbach, 2001) as well as a measure of psychotherapeutic change (e.g., Bers, Blatt, Sayward, & Johnston, 1993; Blatt et al., 1996; Harpaz-Rotem & Blatt, 2005, 2009). The findings of the present study also indicate the importance of differentiating the

subfactors of Neediness and Connectedness within the Dependency–Interpersonal factor of the DEQ (Blatt et al., 1995; Rude & Burnham, 1995). The assessment of the maladaptive dimension of Relatedness, namely, Neediness, has been shown to be important in studies of psychopathology (e.g., Besser, Luyten, & Blatt, 2011; Besser & Priel, 2008; Campos, Besser, Ferreira, & Blatt, 2012), and, as the findings of the present study indicate, especially in eating disorders (Fennig et al., 2008).

The results of the present study should be interpreted in the context of the following limitations. Both the small sample size as well as the cross-sectional design limit our identifying possible causal relationships between the DEQ scales and the quality of the representations of self and of parents. Larger sample sizes for each group, as well as a longitudinal design, are needed in order to examine the associations between the DEQ and D–R scales, as well as between these scales and the Eating Attitudes Test scores (EAT–26) within each group. Like much of literature on AN, our study is based primarily on White, upper-middle class females of at least average IQ. Subsequent research should investigate AN in other samples. Despite these limitations, the results of our investigation clearly indicate that the quality of the representations of self and of significant others, as well as the personality variables of the DEQ, identify characteristics that appear to be unique in a significant number of cases of AN. This understanding of patients' personality dynamics sheds light on patients' character pathology, enabling in turn the development of more nuanced, personality-based therapeutic approaches for this treatment-resistant disorder.

It is noteworthy that our results derive from two different assessment methodologies—a self-report measure, the DEQ, and a more unstructured, projective measure, the ORI with its D–R scale that assesses the developmental level of the descriptions of self and others, dimensions of which individuals are likely to be unaware. Thus, the findings in the present study of qualities unique to Anorexia are assessed through two different methods in a research design that compares AN patients with both matched clinical and nonclinical controls. Additional cross-sectional and longitudinal research with larger samples is needed to replicate and extend these findings and to specify more fully the mechanisms in the association between a disrupted relationship with the mother and a distorted sense of self in the psychopathology of patients with Anorexia Nervosa.

References

- Allison, J., Blatt, S. J., & Zimet, C. N. (1968). *The interpretation of psychological tests*. New York, NY: Harper & Row.
- American Psychological Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: American Psychological Association.
- Behrends, R. S., & Blatt, S. J. (2003). Psychodynamic assessment. In J. Wiggins (Ed.), *Paradigms of personality assessment* (pp. 226–245). New York: Guilford.
- Beresin, E. V., Gordon, C., & Herzog, D. B. (1989). The process of recovering from anorexia nervosa. *Journal of the American Academy of Psychoanalysis and Dynamic Psychiatry*, *17*, 103–130.
- Bers, S. A., Blatt, S. J., & Dolinsky, A. (2004). The sense of self in anorexia–nervosa patients: A psychoanalytically informed method for studying self–representation. *The Psychoanalytic Study of the Child*, *59*, 294–315.
- Bers, S. A., Blatt, S. J., Sayward, H. K., & Johnston, R. S. (1993). Normal and pathological aspects of self-descriptions and their change over long-term treatment. *Psychoanalytic Psychology*, *10*, 17–37. doi:10.1037/h0079432
- Bers, S. A., & Quinlan, D. M. (1992). Perceived–competence deficit in anorexia nervosa. *Journal of Abnormal Psychology*, *101*, 423–431. doi:10.1037/0021-843X.101.3.423

- Besser, A., Luyten, P., & Blatt, S. J. (2011). Do humor styles mediate or moderate the relationship between self-criticism and neediness, and depressive symptoms? *Journal of Nervous and Mental Disease, 199*, 757–764. doi:10.1097/NMD.0b013e31822fc9a8
- Besser, A., & Priel, B. (2008). Attachment, depression, and fear of death in older adults: The roles of neediness and perceived availability of social support. *Personality and Individual Differences, 44*, 1711–1725. doi:10.1016/j.paid.2008.01.016
- Birksted-Breen, D. (1989). Working with an anorexic patient. *The International Journal of Psychoanalysis, 70*, 29–40.
- Blatt, S. J. (2004). *Experiences of depression: Theoretical, clinical and research perspectives*. Washington, DC: American Psychological Association. doi:10.1037/10749-000
- Blatt, S. J. (2008). *Polarities of experience: Relatedness and self-definition in personality development, psychopathology, and the therapeutic process*. Washington, DC: American Psychological Association. doi:10.1037/11749-000
- Blatt, S. J., & Auerbach, J. S. (1988). Differential cognitive disturbances in three types of “borderline” patients. *Journal of Personality Disorders, 2*, 198–211.
- Blatt, S. J., Bers, S. A., & Schaffer, C. E. (1993). *The assessment of self descriptions*. New Haven, CT: Yale University, Department of Psychiatry. Unpublished research manual.
- Blatt, S. J., & Blass, R. (1996). Relatedness and self-definition: A dialectic model of personality development. In G. G. Noam & K. W. Fischer (Eds.), *Development and vulnerabilities in close relationships* (pp. 309–338). Hillsdale, NJ: Earlbaum.
- Blatt, S. J., D’Afflitti, J. P., & Quinlan, D. M. (1976). Experiences of depression in normal young adults. *Journal of Abnormal Psychology, 85*, 383–389. doi:10.1037/0021-843X.85.4.383
- Blatt, S. J., Luyten, P., & Corveleyn, J. (2005). Zur Entwicklung eines dynamischen Interaktionsmodells der Depression und ihre Behandlung [On the development of a dynamic interaction model of depression and its treatment]. *Psyche. Zeitschrift für Psychoanalyse und ihre Anwendungen, 59*, 864–891.
- Blatt, S. J., Stayner, D., Auerbach, J. S., & Behrends, R. S. (1996). Change in object and self representations in long-term, intensive, inpatient treatment of seriously disturbed adolescents and young adults. *Psychiatry, 59*, 82–107.
- Blatt, S. J., & Shichman, S. (1983). Two primary configurations of psychopathology. *Psychoanalysis and Contemporary Thought, 6*, 187–254.
- Blatt, S. J., & Wild, C. M. (1976). *Schizophrenia: A developmental analysis*. New York, NY: Academic Press.
- Blatt, S. J., Wild, C. M., & Ritzler, B. A. (1975). Disturbances in object representation in schizophrenia. *Psychoanalysis and Contemporary Science, 4*, 235–288.
- Blatt, S. J., Zohar, A. H., Quinlan, D. M., Zuroff, D. C., & Mongrain, M. (1995). Subscales within the dependency factor of the Depressive Experiences Questionnaire. *Journal of Personality Assessment, 64*, 319–339. doi:10.1207/s15327752jpa6402_11
- Bruch, H. (1962). Perceptual and conceptual disturbances in anorexia nervosa. *Psychosomatic Medicine, 24*, 187–194.
- Bruch, H. (1965). Anorexia nervosa and its differential diagnosis. *The Journal of Nervous and Mental Disease, 141*, 555–566. doi:10.1097/00005053-196511000-00008
- Bruch, H. (1970). Psychotherapy in primary anorexia nervosa. *The Journal of Nervous and Mental Disease, 150*, 51–67. doi:10.1097/00005053-197001000-00007
- Bruch, H. (1973). Psychiatric aspects of obesity. *Psychiatric Annals, 3*, 6–10.
- Bruch, H. (1978). *The golden cage: The enigma of anorexia nervosa*. Cambridge, MA: Harvard University Press.
- Bruch, H. (1988). *Conversations with anorexics* (D. Czyzewski & M. A. Suhr, Eds.). New York, NY: Basic Books, Inc.
- Campos, C. R., Besser, A., Ferreira, R., & Blatt, S. J. (2012). Self-criticism, neediness, and distress among women undergo breast cancer treatment: A preliminary test of the moderating role of adjustment to illness. *International Journal of Stress Management, 19*, 151–174. doi:10.1037/a0027996

- Canetti, L., Kanyas, K., Lerer, B., Latzer, Y., & Bachar, E. (2008). Anorexia nervosa and parental bonding: The contribution of parent–grandparent relationships to eating disorder psychopathology. *Journal of Clinical Psychology, 64*, 703–716. doi:10.1002/jclp.20482
- Coonerty, S. (1986). An exploration of separation–individuation themes in the borderline personality disorder. *Journal of Personality Assessment, 50*, 501–511. doi:10.1207/s15327752jpa5003_17
- Cunha, A. I., Relvas, A. P., & Soares, I. (2009). Anorexia nervosa and family relationships: Perceived family functioning, coping strategies, beliefs, and attachment to parents and peers. *International Journal of Clinical and Health Psychology, 9*, 229–240.
- Deas, S., Power, K., Collin, P., Yellowlees, A., & Grierson, D. (2011). The relationship between disordered eating, perceived parenting, and perfectionistic schemas. *Cognitive Therapy and Research, 35*, 414–424. doi:10.1007/s10608-010-9319-x
- Diamond, D., Blatt, S. J., Stayner, D. A., & Kaslow, N. (1991). *Self–other differentiation of object representations*. Unpublished research manual, Yale University, New Haven, CT.
- Elliott, J. C. (2010). Fathers, daughters, and anorexia nervosa. *Perspectives in Psychiatric Care, 46*, 37–47. doi:10.1111/j.1744-6163.2009.00236.x
- Fennig, S., Hadas, A., Itzhaky, L., Roe, D., Apter, A., & Shahar, G. (2008). Self-criticism is a key predictor of eating disorder dimensions among inpatient adolescent females. *International Journal of Eating Disorders, 41*, 762–765. doi:10.1002/eat.20573
- Gammon, G. D., John, K., Rostblum, E. D., Mullen, K., Tischler, G. L., & Weissman, M. M. (1983). Identification of bipolar disorder in adolescents with a structured diagnostic interview: The frequency and manifestations of the disorder in an inpatient sample. *The American Journal of Psychiatry, 140*, 543–547.
- Garfinkel, P. E., & Garner, D. M. (1982). *Anorexia nervosa: A multidimensional perspective*. New York, NY: Brunner/Mazel.
- Garner, D. M., & Garfinkel, P. E. (1979). The Eating Attitudes Test: An index of the symptoms of anorexia nervosa. *Psychological Medicine, 9*, 273–279. doi:10.1017/S0033291700030762
- Garner, D. M., Olmsted, M. P., Bohr, Y., & Garfinkel, P. E. (1982). The eating attitudes test: Psychometric features and clinical correlates. *Psychological Medicine, 12*, 871–878. doi:10.1017/S0033291700049163
- Hamburg, P. (1999). The lie: Anorexia and the paternal metaphor. *Psychoanalytic Review, 86*, 745–769.
- Harpaz-Rotem, I., & Blatt, S. J. (2005). Changes in representations of a self-designated significant other in long-term intensive inpatient treatment of seriously disturbed adolescents and young adults. *Psychiatry, 68*, 266–282.
- Harpaz-Rotem, I., & Blatt, S. J. (2009). A pathway to therapeutic change: Changes in self-representation in the treatment of adolescents and young adults. *Psychiatry, 72*, 32–49.
- Hollingshead, A. B. (1957). *Two factor index of social position*. Unpublished manuscript. Yale University, New Haven, CT.
- Jacobson, E. (1964). *The self and the object world*. New York, NY: International Universities Press.
- Kernberg, O. F. (1976). *Object relations theory and clinical psychoanalysis*. New York, NY: Aronson.
- Lachenbruch, P. A. (1967). An almost unbiased method of obtaining confidence intervals for the probability of misclassification in discriminant analysis. *Biometrics, 23*, 639–645. doi:10.2307/2528418
- Lawrence, M. (2001). Loving them to death: The anorexic and her objects. *International Journal of Psychoanalysis, 82*, 43–55. doi:10.1516/4UMC-Q24F-CTB3-EA5K
- Mahler, M. S., Pine, F., & Bergman, A. (1975). *The psychological birth of the human infant*. New York, NY: Basic Books.
- Metropolitan Life Insurance Company. (1983). Metropolitan height and weight tables. *Statistical Bulletin, 64*, 2–9.
- Orvaschel, H., Puig-Antich, J., Chambers, W. J., Tabrizi, M. A., & Johnson, R. (1982). Retrospec-

- tive assessment of child psychopathology with the K-SADS-E. *Journal of the American Academy of Child Psychiatry*, 21, 392–397. doi:10.1016/S0002-7138(09)60944-4
- Pike, K. M., Hilbert, A., Wilfley, D. E., Fairburn, C. G., Dohm, F.-A., & Walsh, B. T. (2008). Toward an understanding of risk factors for anorexia nervosa: A case–control study. *Psychological Medicine*, 38, 1443–1453. doi:10.1017/S0033291707002310
- Ritvo, S. (1976). Adolescent to woman. *Journal of the American Psychoanalytic Association*, 24, 127–137.
- Rude, S. S., & Burnham, B. L. (1995). Connectedness and neediness: Factors of the DEQ and SAS dependency scales. *Cognitive Therapy and Research*, 19, 323–340. doi:10.1007/BF02230403
- Selvini Palazzoli, M. (1974). *Self-starvation, from individual to family therapy in the treatment of anorexia nervosa* (A. Pomerans, Trans.). Northvale, NJ: Jason Aronson. (Original work published 1963)
- Sours, J. A. (1974). The anorexia nervosa syndrome. *International Journal of Psychoanalysis*, 55, 567–576.
- Stern, D. N. (1985). *The interpersonal world of the infant*. New York, NY: Basic Books.
- Wechsler, D. (1974). *Wechsler Intelligence Scale for Children–Revised*. New York, NY: Psychological Corporation.
- Wechsler, D. (1981). *Wechsler Adult Intelligence Scale–Revised*. New York, NY: Psychological Corporation.
- Zerbe, K. J. (1993). *The body betrayed: Women, eating disorders, and treatment*. Washington, DC: American Psychiatric Press.

Appendix A

Examples of Self, Mother, and Father Descriptions

	Anorexia Nervosa	Psychiatric Control	Control Nonpatient
Self	<p>(Mary) DR-Self = 6 (Age 17). Oh God! Um you mean appearance wise? I'm a 5'6" red hair, blue eyes, pale, fat legs and big butt. Shy. I don't know I'm shy until I know a person until I know them and can talk easily. I care more about others' problems than my own. I'm like my family therapist, I'm always trying to fix things, and I blame myself if things don't go right. I always feel guilty, and I always keep things inside and also put a smile on and pretend I'm happy, but inside I feel sick. Sometimes I just like withdraw from everybody and stay in my own little world, and I like to be by myself or with my dog. Um, I like kids a lot, but I would never get kids because pregnant women always get the potbellies after they've had them. I don't like getting too close to people. I don't like people getting too close to me because then</p>	<p>(Jane) DR-Self = 5 (Age 19). Me? Oh that's easy. I'm a very outgoing person. I talk a lot. Anything? I love sports. I love swimming, er, ah, animals. Sometimes I get angry because people don't understand where I'm coming from, and I get frustrated, and they take it out on me, and I get mad at them. I don't know what to say. I know what to say, but I don't know if it's what you want to hear. I like to work. I enjoy working. Actually it's the paycheck I enjoy more. Anything? About me? Oh, what am I like, as a person? A lot of people say I'm easy going. I think I'm easy going. I like to be with people. Sometimes I agree with things that aren't good for me. I disagree with things that aren't good for me. I step aside and look at myself and think, wow, why didn't I do it that way, it's easier! I feel like</p>	<p>(Lucy) DR-Self = 7 (Age 22). Okay . . . I think, um, I'm basically a pretty well-rounded person. I have a lot of varying interests and experiences. I'm pretty self-confident, yet at the same time unaware of myself; and depending on the situation, I think I can be easily intimidated by people. That's basically because I'm fairly passive, that is I don't really . . . There are very few things I feel very strong about . . . really defend . . . I'm not a good debater. I see other peoples' points of view easily. These are the main things that come to mind, trying to think . . . are there other things you're looking for? I like to be unique, original, doing things others aren't doing, the way I dress, opportunities I take advantage of; and I'm fairly conservative, mainly financially. I can survive on very little. Yet I don't go overboard. I try to eat three</p>

(Appendix continues)

Appendix (*continued*)

	Anorexia Nervosa	Psychiatric Control	Control Nonpatient
	<p>I get nervous. Um, I'm very sensitive, and if someone says something and doesn't mean it, I won't take it as a joke; and if someone says something to me I'll just remember it for the longest time. Um, I like to swim and exercise; it seems to give me more energy when I'm done. I'm always tired, but when I exercise I have all this energy when I'm done. (Guilty?) If I feel like I'm not being what someone else wants me to be, I feel guilty—if I'm not being the person they want me to be, I feel disappointed for letting them down. (Shy?) I always have things I'm afraid to talk to a person. I don't know, because I think they'll be grossed out and think why is this loser talking to me. So I won't approach anyone or talk to people I don't know unless they talk to me first. (Nervous?) I don't like everyone knowing—my mom uses things I tell her—if she's mad it'll come out or she'll use it against me—so I'm afraid people will make fun of me if I get too close or they'll leave.</p>	<p>such a jerk sometimes. I don't know, do you want to hear more? I have problems understanding what's going on, I mean I understand it, but I'm getting stuff out of here like drugs and alcohol. They say my father did things when I was young, but what does that have to do with me? I like art therapy and movement therapy. They make me feel good when I have them and I like women's meeting. But I don't like it when I don't accomplish anything when I leave group. (Outgoing?) I'm not scared to go up to a person. "Hi my name is J, and I'm here for treatment" or go up to somebody outside and say "Hi my name is J. What do you do?" I'm not shy like some people or afraid they'll attack me. I don't know how to explain it, I'm just not scared of people. (Easygoing?) Well, I'm not hard to please. I agree with what most people say. I think it's right for them. I enjoy everything, sports. I like to do almost everything. If you hand her a bomb, that's when I run. There are some things I don't like, and some things I do like. I'm just very easy to please. I suppose it all depends on what my mood is, too.</p>	<p>meals a day, yet at the same time I try not to spend more than ten dollars a week on food; the same with clothes. I like to look nice, but I also don't like to buy expensive things. I like to be independent financially, and that's a big reason why I am that way. I like to do things on my own. Let me see the only other thing I can think of is, I like to have a good time; and although I'm serious about my studying and working, I have a fun threshold, and I think that's more important than doing well. (Self-confident?) I feel comfortable with myself. I like myself, and I think I'm self-confident in thinking, in terms of how I care about how other people perceive me. I'm not real concerned about what people think of me because I'm comfortable with myself, and if I'm very preoccupied with what my hair looks like or what I'm wearing it's because I don't like the way it looks. It's not what other people think.</p>
Mother	<p>(Mary) DR–Mother = 4. Talkative. Very domineering. Competent. When she gets angry she's like a mad woman. She has permanent PMS, that's what me and my brother decided. Sometimes she gets really depressed and withdrawn. She always wants everything to be</p>	<p>(Jane) DR–Mother = 6. My mom? Oh Lord, this is going to be great. She's also an outgoing person. She's, um, she's very easy to please herself, but she doesn't know when to accept certain things, like um, when, say like, if I say, Ma give me a thousand</p>	<p>(Lucy) DR–Mother = 7. Hmm . . . my mother hmm . . . my mother wants to do everything for everyone as well as herself. She's sacrificing for other people on top of sacrificing for herself . . . hmm . . . so she's very busy [laughs] as a result. She, I think, is very</p>

(Appendix continues)

Appendix (*continued*)

Anorexia Nervosa	Psychiatric Control	Control Nonpatient
<p>perfect and when it's not she's never happy with anything. Um, she tries to act really cool around people; like around my friends she'll act like she's Miss hip of the century. She has this paranoia about spending money. (Competent?) She always acts like she's so right and everyone else is wrong, like she's so perfect; and if there is a problem, it's everyone else's fault. She thinks she's so wonderful. (Mad woman?) Screams and yells and storms up and down the steps. (Depressed and withdrawn?) She goes up in her bedroom—won't talk to anybody—usually she calls her sister or her mom and complains about how awful we all are. (Domineering?) Like she has to run the show—what she says goes—if we don't want to do something she wants to do we end up doing it—she talks over everybody—whatever she has to say, has to be heard. (Paranoia?) She's always complaining that we're really poor and we don't have any money to do fun things; and I know we're not poor—she was poor when she was very little and likes to hoard the money in saving.</p>	<p>dollars she'd give it to me. She doesn't think about herself very often. She really doesn't do very much. She's just my mom. She doesn't get into sports or anything like that. She usually stays home. She does work a hard job. She does work good. She gets beat all the time. She has a boyfriend. That's about it. (Outgoing?) She's too outgoing actually sometimes. I don't know, she trusts too many people and sometimes gets hurt by them, and I suppose that has a lot to do with easy going, you know. (Works hard?) I don't know, she's just a hard worker. She goes to work every day. She's very independent. She does what she wants, and what she wants to do is the right thing. (Independent?) She's on her own, she does what she wants to do and nobody has to tell. It's not that I resent it. She knows what she's doing and what she is doing is okay in my book.</p>	<p>much a product of her upbringing; living through World War II and it's after effects, I think really made an impact on how she lives her life—very conservatively, few luxuries, very thrifty, very little extravagance. She likes to run and go hiking and camping. I think exercise has become very important to her peace of mind and how she deals with problems—her mental health you might say. That about says it in a nutshell. (Sacrificing?) She has a strong feeling of obligation as a mother and as a wife. You know, as far as making dinner for my father—she always . . . and if she's away she'll freeze things for him and is very preoccupied with him being all right. When we're home, my brother and I, she'll offer to do our laundry in the house, and this is just a prime example. I guess. If one piece of meat is burned or something happened to it, she will eat it; or like doing the dishes, if you work all day like I did in the summer and came home and offer to some vacuuming or the dishes, she'll be very hesitant, arguing that I worked all day and she only worked part time. At the same time she does let you help or expect you to do something, like make my bed. So it's not 100%.</p>

(Appendix continues)

Appendix (*continued*)

	Anorexia Nervosa	Psychiatric Control	Control Nonpatient
Father	<p>(Mary) DR–Father = 7. He reminds me of a teddy bear. He’s really sweet and sensitive but he doesn’t show how he’s feeling. Even if something hurts him, he doesn’t let on how it does. He always goes by what my mom wants: it doesn’t matter what the rest of the family wants, if my mom says “no”, he’ll just take the “no” and we won’t do it. Um. He doesn’t really know how to talk to people or what to say. But he tries and he tries to avoid seriousness by laughing, if you try to tell him how you feel he’ll laugh. I don’t know if it’s funny or it’s too much for him to handle. So I never tell him how I feel. He likes playing with his computer and he’s involved a lot with town politics, like he’s chairman of the town committee, and he used to be a member of a Board. That’s about it. (Sweet?) He tries to do things for my mom because she always gets mad—like he buys her flowers—and says sweet things to everybody, and he’ll do whatever you want him to do. (Sensitive?) Like, um, things like can really touch him sometimes, and you can tell—he feels a lot more than he lets on he’s feeling.</p>	<p>(Jane) DR–Father = 5. I don’t know my father. I really don’t. I haven’t seen him in about seven years so I really don’t remember him too much. Oh anything, let’s see. I suppose him and my mom never really got along. They got a divorce. God, I got to stop thinking about a cigarette. Going nuts over here. We’re on smoking restriction for today. (Is there more about your father?) I know he does drugs. One thing I do remember about him is he’s very neat. He’s tidy. That’s about it. He’s remarried now. He’s got his own life I suppose. I don’t know. (Your parents never got along?) I was too young at the time. I just know from, he says this and she says this. I just never saw them in my life argue; I suppose I was too young. (Drugs?) She says that, and I’ve seen him do it, but I suppose exaggerating a little bit, you know. (Very neat?) He’s just always clean—kept his house clean, you know.</p>	<p>(Lucy) DR–Father = 7. Very similar to my mother, quite traditional, very traditional. Yet I think he keeps an open mind about new things even if he himself is not like that. I guess I’m referring to women’s roles. He easily accepts my mother’s role; he never cooks. The only thing he ever does is carve or barbeque, yet he won’t ever refuse. It’s just accepted. Let’s see, he has a strong sense of responsibility, not only for him, but for other people, taking care and things done properly. I guess he’s a typical conservative New Englander, ah hum. That’s about what comes to mind. (Traditional, conservative?) I guess it’s the same as my mom, no extravagance. He hates buying new clothes unless he really needs it. If he has one pair of pants, he really likes and fits okay, he doesn’t like to change; he wears white shirts. It was very hard for him to get used to wearing stripes when everyone else did, and he never wore wide ties, he always wore his narrow one, and now they’re very much in style. Oh, I know something about my father, that’s very unique to him . . . he puts problems right out of his mind if he doesn’t have to deal with them right at the moment. So if something bad has happened, he doesn’t talk about it openly. He might talk to the person who it’s about only if it’s affecting a</p>

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Anorexia Nervosa	Psychiatric Control	Control Nonpatient
		<p>relationship, but only at that time. For example, if he's having a problem at work, when he comes home, he puts it right out of his mind, which I think is unique compared to the rest of the population whom he can't get along with; and if they have a problem they can't get it out of their minds. His favorite phrase is, stand up straight, smile, and look pleasant, you know, kind of at all costs; and smile, and the world smiles with you; cry and you cry alone. That really shows how he is, that aspect of his personality.</p>