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Mental Representations in Personality Development, Psychopathology, and the Therapeutic Process

Sidney J. Blatt
Yale University

John S. Auerbach
Veterans Affairs Medical Center, Mountain Home, Tennessee

Kenneth N. Levy
City University of New York

This article considers the construct of mental representation from the perspectives of psychoanalytic object-relations theory and cognitive developmental psychology and the congruence of these formulations with research and theory in cognitive science and social cognition. Concepts of mental representation are applied to the study of psychopathology, personality assessment, interpersonal relationships or attachment styles, and therapeutic progress in the long-term, inpatient treatment of seriously disturbed adolescents and young adults. Understanding of personality development, psychopathology, and the therapeutic process is greatly enhanced by this constructivist perspective, which considers the construction of mental representations or cognitive–affective schemas to be a central constituent of personality development and organization.

Mental representation is a central theoretical construct in cognitive science, in developmental and social psychology, and also in psychoanalytic theory and research. In this article, we consider mental representation from psychoanalytic and cognitive developmental perspectives and demonstrate the usefulness of this theoretical construct in understanding aspects of personality development, psychopathology, and the therapeutic process.

Investigations in psychoanalysis and cognitive developmental psychology indicate that children, using early interactions with primary caregivers, construct cognitive–affective schemas of self and other and that these schemas regulate and direct a wide range of subsequent behavior, especially in interpersonal relationships (e.g., Ainsworth, 1969, 1982; Beebe, 1986; Blatt, 1974; Blatt, Wild, & Ritzler, 1975; Bowlby, 1969, 1973, 1988; Fonagy et al., 1995; Kernberg, 1976; Kohut, 1971; Lichtenberg, 1983; Mahler, Pine, & Bergman, 1975; Main, Kaplan, & Cassidy, 1985; Piaget, 1945/1962; Stern, 1985). These cognitive–affective schemas or mental representations of self and other develop over the life cycle. They have conscious and unconscious cognitive, affective, and experiential components that derive from significant early interpersonal experiences. They also reflect the individual's developmental level and such important aspects of psychic life as impulses, affects, drives, and fantasies (Beres & Joseph, 1970; Blatt, 1974; Sandler & Rosenblatt, 1962). These cognitive–affective schemas can involve veridical representations of consensual reality, idiosyncratic and unique constructions, or primitive and pathological distortions that suggest psychopathology (Blatt, 1991, 1995). They become the templates or prototypes that structure how one thinks and feels about oneself and about others (Ainsworth, 1982; Blatt, 1974, 1991, 1995; Bowlby, 1988; Bretherton, 1985; Lichtenberg, 1983; Main et al., 1985; Stern, 1985). Thus, these schemas both derive from and, in turn, determine the experience of the self in an interpersonal matrix (Beres & Joseph, 1970; Blatt & Lerner, 1983; Bowlby, 1988; Jacobson, 1964). Both psychoanalytic and cognitive–developmental theory attempt to account for the ways in which individuals

Sidney J. Blatt, Yale University; John S. Auerbach, Veterans Affairs Medical Center, Mountain Home, Tennessee; Kenneth N. Levy, City University of New York.

Correspondence concerning this article should be addressed to Sidney J. Blatt, Yale University, 25 Park Street (Room 612–13), New Haven, Connecticut 06519.

establish, maintain, and revise meaning systems (schemas, plans, scripts, or representations) that organize and shape their understanding of the self in relation to others. Formulations and findings from psychoanalytic object-relations theory and from attachment theory and research are consistent with the recent focus in developmental psychology, cognitive science, information processing, and social cognition on the role of schemas of self and others as heuristic prototypes that provide the basis for social interaction and interpersonal behavior (e.g., Anderson, 1983; Auerbach, 1993; Blum, 1986; Brewer & Nakamura, 1984; Erdelyi, 1985; Fiske & Taylor, 1984; Gardner, 1985; Horowitz, 1988; Mandler, 1988; Markus, 1977; Nelson & Grundel, 1987; Westen, 1991).

Schemas of self and others are constructed in interpersonal transactions that begin with the infant–caregiver relationship, and they unfold as part of a natural maturational process and in response to environmental demands and perturbations. When developmental demands are age appropriate and not too severe, the existing cognitive structures evolve to accommodate the experienced perturbations. These accommodations result in the construction of more mature cognitive–affective structures that usually develop in a well-defined developmental sequence. Despite many inter- and intraindividual variations in the rate at which these cognitive–affective schemas develop or become more sophisticated (Fischer, 1980), these representations of self and other usually unfold in a gradual and orderly sequence, from enactive, affective, and physicalistic to symbolic and abstract (Blatt, 1974; Bruner, 1964; Damon & Hart, 1988; Horowitz, 1972). Developmental stages, although highly dependent on the psychosocial contexts and environments in which they emerge, retain a crucial degree of temporal coherence (Damon & Hart, 1988). As a result of the gradual transformation of representational capacities in response to life circumstances, increasingly mature schemas more effectively come to organize, shape, and guide subsequent interpersonal behavior. But severe or developmentally inappropriate perturbations can overwhelm the child's capacities for accommodation and compromise the development of these representational capacities. Diverse forms of psychopathology involve specific disturbances in the structure and content of these cognitive–affective schemas (Blatt, 1991, 1995).

Mental Representations in Attachment Theory and Psychoanalytic Object-Relations Theory

Theory and research have addressed the role of early caregiving relationships in the development of representations of self and others in both normal and disrupted development. The subtleties of the relational attunement between caregiver and infant in patterns of engagement and disengagement in the early months of life (e.g., Beebe, 1986; Beebe & Lachmann, 1988; Stern, 1985) and in patterns of attachment and separation in the first half of the second year (e.g., Ainsworth, 1982; Bowlby, 1988) demonstrate the contributions of early emotional relationships to the development of cognitive–affective interpersonal schemas (e.g., Ainsworth, 1969, 1982; Bowlby, 1988; Bretherton, 1985, 1987; Feldman & Blatt, 1996; Levy, Blatt, & Shaver, in press; Main et al., 1985; Stern, 1985; Zeanah & Anders, 1987). These findings are consistent with psychoanalytic formulations that relatively satisfactory caring experiences facilitate the development of a differentiated and cohesive sense of self and a capacity for increasingly mature interpersonal relatedness (Blatt, 1974, Blatt & Blass, 1990, 1992, 1996; Blatt et al., 1975; Kernberg, 1975; Kohut, 1971; Loewald, 1960, 1978; Mahler et al., 1975; Sandler & Rosenblatt, 1962; Winnicott, 1965).

Research on mother–infant interaction in the first 3 to 4 months of life (e.g., Beebe & Lachmann, 1988; Stern, 1985) demonstrates that the subtle vicissitudes of the relational attunement between caregiver and infant interact with inborn capacities to facilitate the development of mental representations of self and others. Observations of the processes of attachment and separation from ages 12 to 18 months provide perhaps the clearest examples of the relationship between quality of interpersonal interactions and the construction of cognitive–affective schemas. Research on early attachment patterns suggests that the child establishes internal working models (IWMs; see Bowlby, 1969, 1973, 1988; Main et al., 1985) of attachment relationships that are relatively stable over time (Ainsworth, 1982; Bretherton, 1985) and that influence a wide range of

behavior, even as late as preadolescence (e.g., age 11; Elicker, Englund, & Sroufe, 1993) and beyond.

These IWMs have been defined as "a set of conscious and unconscious rules for the organization of information relevant to . . . attachment-related experiences, feelings, and ideations" (Main et al., 1985, p. 67). They function as "surprisingly powerful" templates that are "related not only to individual patterns in nonverbal behavior, but also to patterns of language and structures of mind" (Main et al., 1985, p. 67). As Bowlby (1988) noted,

> the working models a child builds of his mother and her way of communicating and behaving toward him, and a comparable model of his father, together with the complementary models of himself in interactions with each, are being built by a child during the first few years of his life and, it is postulated, soon become established as influential cognitive structures. (p. 130)

Infants, however, do not construct static representations of the self, of others, or even of specific attachment-related transactions; rather, through mutual interactive regulation with their caregivers, infants form prototypic schemas involving invariant dimensions of early, affectively charged relationships (Beebe & Lachmann, 1988; Behrends & Blatt, 1985; Bretherton, 1987; Kernberg, 1995; Loewald, 1960; Stern, 1985; Zeanah & Anders, 1987). Within this context of mutual regulation (e.g., Feldman & Blatt, 1996), experiences of gratification and frustration, of union and separation, constitute the basic events from which infants construct these prototypes (Beebe & Lachmann, 1988; Behrends & Blatt, 1985; Blatt & Blass, 1990, 1996).

Internal working models, or representations of interactions that have been generalized (RIGs; Stern, 1985), are formed early in life and vary in their level of flexibility, adaptiveness, and maturity. They are central to the development of a sense of self and others, and they pervasively influence the nature and quality of interpersonal relationships throughout the life cycle. These schemas are heuristic guides that organize experiences, modulate affect, and provide direction for subsequent behavior. They become enduring psychological structures or templates that process and organize information and that promote the assimilation of new experiences to existing mental structures (Blatt & Lerner, 1983). Development can be viewed, therefore, as a progressive epigenetic unfolding of more mature cognitive schemas that evolve out of earlier cognitive structures.

Ainsworth, Blehar, Waters, and Wall (1978), using the strange situation procedure,[1] identified three basic attachment styles associated with the IWMs: (a) *secure,* in which the infant uses a caregiver as a secure base from which to explore the world and to which to retreat at moments of separation, distress, or anxiety; (b) *insecure–avoidant,* in which the infant explores the environment in a seemingly confident manner, but ignores the caregiver on return after separation; and (c) *insecure anxious–resistant, anxious–ambivalent, or preoccupied,* in which the infant focuses attention on the caregiver, is reluctant to separate and to explore the environment, and is clinging and dependent on reunion.

Several longitudinal studies have investigated the influence of these infant attachment styles on subsequent functioning and adaptive potential. Securely attached infants as preschoolers are cooperative, popular with peers, and highly resilient and resourceful (Sroufe, 1983), and at age 6, they are relaxed and friendly and converse with their parents in a free-flowing and easy manner (Main & Cassidy, 1988). Insecure–avoidant infants as preschoolers appear emotionally insulated, hostile, and antisocial (Sroufe, 1983); they later tend to distance themselves from their parents and ignore their parents initiatives in conversation (Main & Cassidy, 1988). Anxious–resistant or preoccupied insecure infants are tense and impulsive as toddlers and passive and helpless in preschool (Sroufe, 1983); they later show a mixture of insecurity and hostile behavior in interaction with their parents (Main & Cassidy, 1988).

Moreover, Ainsworth (1985) reported that Main and Cassidy found a highly significant correlation between attachment behavior at age one year and patterns of separation–reunion in studies of children with their mothers at 6 years.

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[1] Ainsworth and colleagues (Ainsworth et al., 1978) developed a technique that involves eight standard episodes staged in a playroom, through which the infant, the caregiver, and a "stranger" interact in a comfortable setting and the behaviors of the infant can be observed. First, the baby has the chance to explore toys while the mother is present. Gradually, a stranger enters, converses with the mother, and invites the baby to play. The mother leaves the baby with the stranger and returns for a reunion, and then the baby is left alone; the stranger then returns and finally the mother returns for a second reunion.

Two longitudinal studies (Elicker et al., 1993; Grossmann & Grossmann, 1991) have followed children for as long as 10 years after their assessment in the strange situation and have found predictable personality and social behaviors over that decade. Elicker et al. (1993) reported that infant attachment style, even when controlling for adjustment and home environment, reliably predicts social skill and self-confidence in children 10 years later. Specifically, secure attachment in infancy predicts more positive relationships with teachers and more socially adept, close friendships with peers at age 11. Hamilton (1994) interviewed a group of late adolescents who were assessed as infants in the strange situation in a study of alternative living situations. There was a 75% correspondence for secure–insecure attachment status between infancy and late adolescence, with the strongest stability in the preoccupied group. A more recent study (Water, Merrick, Albersheim, & Treboux, 1995) followed 50 individuals for 20 years and found 64% stability in attachment classification (actually, greater than 70% stability for individuals with no major negative life events, and less than 50% stability for those who lost a parent, endured parental divorce, etc.).

Thus, longitudinal research, although preliminary, indicates that attachment patterns remain stable over time (Bretherton, 1985), even into early adulthood (age 20). It is likely, therefore, that IWMs that underlie attachment classifications are also fairly constant over extended periods of time, although the relative importance of various contributors to stability and change—for example, temperament, continuing relationships with the same family members, negative life events, change-resistant internal working models, and behavior patterns that produce self-fulfilling prophecies—remains to be determined by further research (see Rothbard & Shaver, 1994, for a review of research on continuity).

In addition, evidence indicates that these internal working models also have cross-generational continuity; for example, mothers' caregiving behavior is congruent with their reports of the care they received as children from their own mothers. Reports by pregnant women about their early childhood caring experiences with their mothers are congruent with the subsequent care that these women eventually provided their infants (Fonagy, Steele, & Steele, 1991; Main et al., 1985; Slade & Aber, 1992; Virtue, 1992). In addition, these attachment patterns are related to important cognitive differences in adults such as, for example, the degree of cohesion and consistency of the narrative reports that adults construct in describing their early life experiences (Main, 1991; Main et al., 1985).

Cross-sectional investigations also support the importance of attachment styles in adulthood (Hazan & Shaver, 1987, 1990, 1994; Shaver & Hazan, 1987, 1993; West, Sheldon, & Reiffer, 1987). Main et al. (1985) demonstrated a link between attachment behavior of infants and symbolic processes of older children and adults. Using Ainsworth's differentiation of attachment patterns, Main et al. (1985) developed an interview to assess aspects of adults' IWMs by probing for both specific corroborative and contradictory memories of parents and of relationships with parents. The interview inquires into "descriptions of early memories and attachment related events for the adult's sense of the way these relationships and events have affected adult personality" (Main et al., 1985, p. 98). In accordance with findings of different attachment styles in infancy and childhood (Ainsworth et al., 1978), Main et al. (1985) identified three major patterns of attachment in adults: secure, detached, and enmeshed. Two additional styles were subsequently identified, a disorganized style and an unclassifiable style (Main & Solomon, 1990).

In contrast to Main's focus on adults' early relationships with parents, Hazan and Shaver (1987; Shaver, Hazan, & Bradshaw, 1988), from a social psychological perspective, applied the childhood attachment paradigm to study attachment in adulthood by conceptualizing romantic love as an attachment process. This work is important because it translates the childhood attachment paradigm into terms that are directly relevant to adult relationships. Shaver and colleagues (Brennan, Shaver, & Tobey, 1991; Hazan & Shaver, 1987, 1990; Shaver & Brennan, 1992) demonstrated that the three attachment styles (secure, anxious–ambivalent, and avoidant) are related to a wide variety of processes and outcomes in close relationships in adults. Initially, Hazan and Shaver (1987; 1990) found that a relationship between self-reported romantic attachment style and IWMs. Secure individuals experiences of love were character-

ized by caring, intimacy, supportiveness, and understanding; avoidant individuals by fear of intimacy; and anxious–ambivalent individuals by emotional instability, obsession, physical attraction, and the desire for union. Additionally, they found greater loneliness among insecure individuals. In a second study, Hazan and Shaver (1990) reported that secure individuals, in contrast to both groups of insecure subjects, scored lower on measures of depression and anxiety. Secure individuals report being less depressed, anxious, hostile, and sick than do insecure individuals. Hazan and Shaver (1990) also assessed feelings related to work and leisure (e.g., feeling unappreciated by coworkers, using work to avoid social contacts), with work conceptualized as an exploratory behavioral system, as defined by Bowlby and Ainsworth. Avoidant individuals regarded success in work as more important than success in relationships. Additionally, avoidant individuals tended to be satisfied with work, but not with their coworkers. Instead, these individuals prefer to work alone. Anxious–ambivalent individuals, in contrast, preferred to work with others and usually enjoyed not the actual work but, rather, the people with whom they work.

Brennan and Shaver (1993) also found that adult attachment style predicted one's own and one's partner's satisfaction in a romantic relationship. They found evidence for nonrandom pairings of attachment types in dating couples. Again, secure individuals were more likely to be dating secure partners; couples in which both partners were of an anxious–ambivalent attachment style were quite rare. Kirkpatrick and Davis (1994) reported similar results. In sum, numerous studies since 1987 have investigated adult attachment styles and found that these styles significantly predicted relationship outcome (e.g., satisfaction, breakups, commitment), patterns of coping with stress, quality of interpersonal communication, and even phenomena like religious experiences and patterns of career development (Feeney & Kirkpatrick, 1996; Hazan & Hutt, 1993; Mikulincer & Nachshon, 1991; Simpson, Rholes, & Nelligan, 1992; for reviews see Hazan & Shaver, 1994; and Shaver & Hazan, 1993).

In an important conceptual development, Bartholomew (1990; Bartholomew & Horowitz, 1991) extended the research by Hazan and Shaver on adult romantic attachment. Bartholomew noticed an incongruence between Main's conception of avoidance and that of Hazan and Shaver. Main's prototype of the adult avoidant style (assessed in the context of parenting) is more defensive, denial oriented, and overtly unemotional than is Hazan and Shaver's avoidant romantic attachment prototype, which seems more vulnerable, conscious of emotional pain, and anxious. Thus, Main's avoidant style is predominately *dismissing,* whereas Hazan and Shaver's avoidant style is predominately *fearful.* Thus adult attachment, like infant attachment as conceptualized by Crittenden (1988) and Main and Solomon (1990), can best be characterized by four, rather than three, major categories, with two patterns of avoidant attachment.

Using both interview and self-report measures of both romantic and nonromantic peer relationships, Bartholomew (1990) and Bartholomew and Horowitz (1991) found important individual differences between dismissive and fearfully avoidant attachment. Fearfully avoidant individuals were characterized by a desire for relatedness that is inhibited by fears of its consequences. Such persons were low in self-esteem, hesitant, shy, lonely, vulnerable, dependent, self-critical, afraid of rejection, and lacking in social confidence. In contrast, dismissively avoidant individuals were characterized by a defensive denial of the need and desire for relatedness. They rated themselves as high in self-esteem, socially self-confident, unemotional, independent, cynical, critical of and distant from others, and more interested in achievement than in interpersonal relationships. Although dismissively avoidant individuals rated themselves as high in self-esteem, their peers often saw them as hostile and socially autocratic.

Consistent with the formulations of Bowlby and Ainsworth, Bartholomew noted that the four attachment styles can be arranged in two-dimensional space and defined by two underlying dimensions: model of the self as either positive or negative and a model of others as either positive or negative. These two dimensions define four possible attachment styles. For secure individuals, models of self and other are both generally positive. For preoccupied or anxious-ambivalent individuals, the model of others is positive (i.e., relationships are attractive), but the model of self is not. For dismissing individuals, the reverse is true: the somewhat

defensively maintained model of self is positive, whereas the model of others is not (i.e., intimacy in relationships is regarded with caution or avoided). Fearful individuals have relatively negative models of both self and others.

These empirical studies of the qualities of IWMs in children, adolescents, and adults parallel formulations by psychoanalytic object-relations theorists (e.g., Guntrip, 1971; Kernberg, 1976; Mahler et al., 1975; Winnicott, 1958, 1965) who consider cognitive–affective representations of self and others to be pivotal psychological structures in personality development and organization (Beres & Joseph, 1970; Blatt, 1974; Blum, 1961; Jacobson, 1964; Sandler & Rosenblatt, 1962). In psychoanalytic terminology, these cognitive–affective schemas of self and others are termed *self representations* and *object representations.*[2] The investigation of mental representations in object-relations theory has been based primarily on clinical samples of adults, whereas the investigation of internal working models in attachment theory derives predominantly from the study of normal children and adults. Comparisons between these two perspectives (attachment and object-relations theories) have thus far been mostly theoretical (Blatt & Blass, 1990; Diamond & Blatt, 1994; Lyons-Ruth, 1991; Patterson & Moran, 1988; Silverman, 1991; Zelnick & Buchholz, 1990), but the differentiation of representations of self and others described by object-relations theorists can elucidate the ways in which processes of attachment lead to the formation of cognitive–affective schemas of self and others (Diamond & Blatt, 1994). An integration of object-relations and attachment theories offers the possibility of specifying the complex relationships among interpersonal, affective, and cognitive dimensions in psychological development. For example, increased complexity of representations of others allows for better affect regulation, a higher level of integration, and increased tolerance of ambivalence toward others (Diamond, Kaslow, Coonerty, & Blatt, 1990; Gruen & Blatt, 1990; Levy et al., in press).

Implications for the Study of Psychopathology

Blatt (1991, 1995) proposed a theoretical model of personality development and psychopathology that distinguishes among various forms of psychopathology, from schizophrenia to the neuroses, on the basis of differential impairments of the structure of mental representations—that is, in the development of concepts of self and other. Using cognitive developmental theory (e.g., Piaget and Werner) and psychoanalytic object-relations theory (e.g., Fraiberg, A. Freud, Jacobson, and Mahler), Blatt identified several central nodal points in the development of the structure of mental representations and delineated the relevance of these nodal points for understanding a wide range of psychopathology. These nodal points are as follows: (a) *boundary constancy,* in which one is able to establish and maintain a sense of separateness between self and other and between self and nonself; (b) *recognition or emotional constancy,* in which one is able to establish and maintain a consistent emotional attachment to a particular person; (c) *evocative or object constancy,* in which one is able to establish and maintain a positive emotional relationship with a significant other when the other is absent or when one is in conflict with that significant person; (d) *self-constancy,* in which one has a consolidated, cohesive, and stable representation of oneself as different from and distinct from others and as enduring in space and time, regardless of one's emotional state; and (e) *operational thought,* in which one is able to coordinate relationships among several dimensions and thus also to consider oneself within the triadic interpersonal configurations of one's family and, ultimately, in broader social contexts.

Integrating extensive research findings and clinical reports, Blatt and Wild (1976) demonstrated that a wide range of symptoms and cognitive, perceptual, and interpersonal disturbances in schizophrenia can be understood as disruptions in the capacity to establish and maintain boundary (Blatt & Ritzler, 1974) and of emotional (or recognition) constancy (Blatt, Schimek, & Brenneis, 1980). Additionally, many symptoms and impairments in borderline pathology can be understood as disturbances in the capacity to establish and maintain evocative

[2] An *object* is best defined as a significant other, a person who is the target of a significant emotional investment or with whom one has a significant emotional relationship.

and self-constancy (e.g., Auerbach & Blatt, 1996; Blatt & Auerbach, 1988). Auerbach and Blatt (1996, 1997) also detailed the impact of these early representational disturbances on later cognitive functioning (i.e., on operational thought) in schizophrenia, borderline states, and other forms of psychopathology. Less serious forms of psychopathology (e.g., depression, neuroses, etc.) can be understood as involving particular disruptions in the integration of schemas of self and others in persons whose capacities for boundary, recognition, object, and self constancy are largely intact (e.g., Blatt, 1974, 1991, 1995; Blatt & Shichman, 1983; Blatt & Zuroff, 1992). Using an epigenetic model (e.g., Blatt & Shichman, 1983; Bowlby, 1973; Waddington, 1957), Blatt and colleagues argued that the consequences of earlier developmental deviations in the development of boundary, recognition, object, and self constancy are amplified in later cognitive, affective, and interpersonal disturbances in adults.

Assessment of Mental Representations

The emphasis on mental representation in psychoanalytic object-relations theory, in attachment theory and research, in developmental psychology, and in social cognition has had a major impact recently on personality assessment (Blatt, 1990a; Leichtman, 1996). Emphasis on the centrality of the development of mental representation in personality organization has led, in clinical research, to the development of important new approaches for evaluating responses given to projective techniques like the Rorschach and the Thematic Apperception Test (TAT), as well as for evaluating reports of early memories and of dreams (e.g., Blatt, 1990a; Blatt & Auerbach, 1988; Blatt, Brenneis, Schimek, & Glick, 1976; Blatt & Lerner, 1983; Blatt & Ritzler, 1974; Krohn & Mayman, 1974; Mayman, 1967; Ryan & Bell, 1984; Urist, 1977; Westen, Lohr, Silk, Gold, & Kerber, 1990). These various studies have provided new ways of understanding forms of psychopathology like schizophrenia (Auerbach & Blatt, 1996, 1997; Blatt, Schimek, & Brenneis, 1980; Blatt & Wild, 1976; Blatt et al., 1975), borderline pathology (Auerbach & Blatt, 1996; Blatt, 1990a; Blatt & Auerbach, 1988; Diamond et al., 1990; Gruen & Blatt, 1990b; Nigg, Lohr, Westen, Gold, & Silk, 1992; Westen et al., 1990), and depression (Blatt, 1974; Blatt & Homann, 1992; Blatt & Maroudas, 1992; Cicchetti & Aber, 1986; Homann, 1991; Zuroff & Fitzpatrick, 1991).

In addition to applying concepts of mental representation to the analyses of responses to projective techniques, Blatt and colleagues developed new procedures that assess aspects of mental representations by evaluating the structure and content of spontaneous descriptions of self and significant others (Blatt, Wein, Chevron, & Quinlan, 1979; Blatt, Chevron, Quinlan, Schaffer, & Wein, 1988; Diamond, Blatt, Stayner, & Kaslow, 1991). Using concepts from developmental cognitive and psychoanalytic theories, they developed methods for assessing the degree of differentiation and relatedness (Diamond et al., 1991), the degree of cognitive organization (conceptual level) and qualitative dimensions in descriptions of self and of significant others (Blatt et al., 1988, 1979).

Differentiation-Relatedness Scale (Diamond et al., 1991)

Drawing from theoretical formulations and clinical observations about very early processes of boundary articulation (Blatt & Wild, 1976; Blatt, Wild, & Ritzler, 1975; Jacobson, 1964; Kernberg, 1975, 1976), processes of separation–individuation (Coonerty, 1986; Mahler et al., 1975), the formation of the sense of self (Stern, 1985), and the development of increasingly mature levels of interpersonal relatedness (Blatt & Blass, 1990, 1996), Blatt and colleagues identified two fundamental dimensions of self and object representation: (a) the differentiation of self from other and (b) the establishment of increasingly mature levels of interpersonal relatedness. To assess the degree of differentiation and relatedness in descriptions of self and significant others, Diamond et al. (1991) developed the Differentiation-Relatedness Scale, a 10-point scale in which to rate the following points: *a lack of basic differentiation between self and other* (Levels 1 and 2); *the use of mirroring* (Level 3), *self–other idealization or denigration* (Level 4), and an *oscillation between polarized negative and positive attributes* (Level 5) as maneuvers to consolidate and stabilize representations; *an emergent differentiated, constant, and integrated representation of self and other, with increasing tolerance for*

ambiguity (Levels 6 and 7); *representations of self and others as empathically interrelated* (Level 8); *representations of self and other in reciprocal and mutually facilitating interactions* (Level 9); and *reflectively constructed integrated representations of self and others in reciprocal and mutual relationships* (Level 10). In general, higher ratings of differentiation relatedness in descriptions of self and other are based on increased articulation and stabilization of interpersonal schemas and an increased appreciation of mutual and empathically attuned relatedness.

This scale, summarized in Table 1, is based therefore on the assumption that psychological development moves toward the emergence of (a) a consolidated, integrated, and individuated sense of self-definition and (b) empathically attuned, mutual relatedness with significant others (Aron, 1996; Benjamin, 1995; Blatt, 1991, 1995; Blatt & Blass, 1990, 1996; Jordan, 1986; Miller, 1984; Mitchell, 1988; Stern, 1985; Surrey, 1985). Differentiation and relatedness are interactive dimensions (Blatt & Blass, 1990, 1996; Blatt & Shichman, 1983; Sander, 1984) that unfold throughout development (see also Kegan, 1982; Mitchell, 1988; Ogden, 1986). The dialectical interaction between these two developmental dimensions facilitates the emergence and consolidation of increasingly mature levels of both self-organization and intersubjectively attuned, empathic relatedness (Blatt & Shichman, 1983; Blatt & Blass, 1990, 1996). The scale assumes that, with psychological development, representations of self and other become increasingly differentiated and integrated and begin to reflect an increased appreciation of mutual relatedness.

As regards the dimension of differentiation, the scale reflects, at the lowest levels, the compromise of boundaries with regards to basic body awareness, emotions, and thoughts. Subsequent scale levels reflect a unitary, unmodulated view of self and of the other as extensions of each other or as mirrored images (i.e., images in which aspects of self and other are identical). At an intermediate level, representations are organized around a unitary idealization or denigration of self or other (i.e., around an exaggerated sense of the goodness or badness of the figure described). At the next level, these exaggerated aspects of self and other alternate in a juxtaposition of polarized (i.e., all-good or all-bad) extremes. Later scale levels reflect both an increasing capacity to integrate disparate aspects of self and other and an increased tolerance for ambivalence and ambiguity (Kernberg, 1977).

As Table 1 indicates, the scale also reflects a trend toward empathically attuned mutuality in complex interpersonal relationships. At lower levels, the sense of relatedness in representations may involve being controlled by the other (e.g., trying to resist the onslaught of an other who is experienced as bad and destructive). At increasingly higher levels, relatedness may be expressed primarily in parallel interactions, in expressions of cooperation and mutuality, in understanding the other's perspective, or in expressions of empathically attuned reciprocity (Blatt & Blass, 1990, 1996). At the highest levels, descriptions will reflect a sense of one's participation in complex, relational matrices that determine perceptions, attributions, and the construction of meaning.

These 10 levels of differentiation-relatedness were established on the basis of the clinical and developmental findings and reflect what are generally regarded as clinically significant distinctions in the transition from grossly pathological to intact and even healthy object relations. The scale points are thus best regarded as discrete categories, not points on a continuum. In other words, the underlying logic of this measure is ordinal and not interval or nominal. The various levels of this scale, therefore, may not be equidistant from each other, and the specific number of scale points is to some extent arbitrary. That is, new levels of differentiation-relatedness can be added in light of new clinical observations, theoretical formulations, and research findings. Nevertheless, a clear implication of this scale is that higher differentiation-relatedness ratings reflect a greater degree of psychological health. In theory, differentiation-relatedness, Levels 8, 9, and 10, are indicative of mental health, and differentiation-relatedness Level 7 (consolidation of object constancy) is regarded as a prerequisite for normal psychological and interpersonal functioning.

Interrater and retest reliability of this scoring procedure is at acceptable levels (Stayner, 1994), and early reports support the validity of

Table 1
Differentiation-Relatedness of Self and Object Representations

Level/scale point	Description
1. Self/other boundary compromise	Basic sense of physical cohesion or integrity of representations is lacking or is breached.
2. Self/other boundary confusion	Self and other are represented as physically intact and separate, but feelings and thoughts are amorphous, undifferentiated, or confused. Description may consist of a single global impressionistic quality or a flood of details with a sense of confusion and vagueness.
3. Self/other mirroring	Characteristics of self and other, such as physical appearance or body qualities, shape or size, are virtually identical.
4. Self/other idealization or denigration	Attempt to consolidate representations based on unitary, unmodulated idealization or denigration. Extreme, exaggerated, one-sided descriptions.
5. Semi-differentiated, tenuous consolidation of representations through splitting (polarization) and/or by an emphasis on concrete part properties	Marked oscillation between dramatically opposite qualities or an emphasis on manifest external features.
6. Emergent, ambivalent constancy (cohesion) of self and an emergent sense of relatedness	Emerging consolidation of disparate aspects of self and other in a somewhat hesitant, equivocal, or ambivalent integration. A list of appropriate conventional characteristics, but they lack a sense of uniqueness. Tentative movement toward a more individuated and cohesive sense of self and other.
7. Consolidated, constant (stable) self and other in unilateral relationships	Thoughts, feelings, needs, and fantasies are differentiated and modulated. Increasing tolerance for and integration of disparate aspects. Distinguishing qualities and characteristics. Sympathetic understanding of others.
8. Cohesive, individuated, empathically related self and others	Cohesive, nuanced, and related sense of self and others. A definite sense of identity and an interest in interpersonal relationships and a capacity to understand the perspective of others.
9. Reciprocally related integrated unfolding self and others	Cohesive sense of self and others in reciprocal relationships that transform both the self and the other in complex, continually unfolding ways.
10. Creative, integrated constructions of self and other in empathic, reciprocally attuned relationships	Integrated reciprocal relations with an appreciation that one contributes to the construction of meaning in complex interpersonal relationships.

Table 2
Conceptual Level of Descriptions of Self and Other

Level/scale point	Description
Sensorimotor Preoperational (Scale Point 1)	Persons are described primarily in terms of the gratification or frustration they provide. There is little sense that others exist as entities separate and independent of their direct effect on the individual's pleasure or pain.
Concrete Perceptual (Scale Point 3)	Persons are described primarily in concrete, literal terms, usually on the basis of physical attributes and features. Emphasis is placed on external physical characteristics and appearance.
Iconic (Scale Points 5 and 7)	External iconic level: Persons are described primarily in terms of manifest activities or functions. Internal iconic level: Persons are described primarily in terms of their thoughts, feelings, and values, rather than their physical characteristics or activities. The description primarily involves psychological dimensions.
Conceptual level (Scale Point 9)	Using a range of levels, the description integrates external appearances and activities (behavior) with internal dimensions (feelings, thoughts, and values). Apparent contradictions are resolved in an integrated, complex, coherent synthesis.

this scale as a measure of differentiation-relatedness (e.g., Blatt, Auerbach, & Aryan, in press; Blatt, Stayner, Auerbach, & Behrends, 1996; Diamond et al., 1990; Diamond et al., 1991).

Conceptual-Level Scale

With a 9-point scale derived from psychoanalytic and cognitive developmental concepts (Blatt, 1974; Blatt et al., 1979; 1988), the conceptual level of descriptions of self and significant other can be rated on an ordinal continuum that includes sensorimotor, concrete-perceptual, iconic, and, finally, conceptual levels of representation. Definitions of each of these points are presented in Table 2. This scale has been used extensively in prior research, and several reports indicate the reliability and validity of this scoring procedure (e.g., Blatt et al., 1979, 1988; Bornstein & O'Neill, 1992).

Qualitative-Thematic Scales

The descriptions of significant others can be rated not only on the two structural dimensions of the descriptions (differentiation-relatedness and conceptual level), but also on a series of 7-point scales designed to assess each of 12 qualities that could be attributed to the person being described. As Table 3 indicates, these qualities are affectionate, ambitious, malevolent–benevolent, cold–warm, degree of constructive involvement, intellectual, judgmental, negative–positive ideal, nuturant, punitive, successful, and strong–weak.[3] Prior research indicates acceptable levels of interrater reliability with this procedure (Blatt et al., 1979, 1988; Bornstein & O'Neill, 1992).

[3] The scoring of these qualitative features is not applicable to self-description.

Table 3
The 12 Thematic Content Scales for the Description of Significant Others

Scale	Description
Affectionate	The degree to which the person is described as having and displaying overt affection or warm regard.
Ambitious	The degree to which the person is described as displaying aspirations in instrumental or occupational domains for self and/or others; as having an ardent desire to achieve; as aspiring, driving, or exerting pressure on self and others.
Malevolent–benevolent	The degree to which the person's intentions toward or effects on others are described as having or expressing intense ill will, spite, or hatred, rather than as doing or being disposed to doing good.
Cold–warm	The degree to which the person's interpersonal affective style is described as unemotional and impersonal, rather than as warm and loving.
Degree of constructive involvement	The degree to which the person's interactions with others are described as negative (either distant and reserved, or overinvolved), rather than as positive (constructive involvement, with respect for others' individuality).
Intellectual	The extent of the person's emphasis on study, reflection, and speculation, interest in ideas, creative use of intellect, or capacity for rational and intelligent thought and an appreciation for complexity.
Judgmental	The degree to which the person is described as holding critical or excessively high standards, rather than as being accepting and tolerant.
Negative-positive ideal	The degree to which the person is described as someone whom one wants to be like or emulate; the degree of admiration for qualities the individual possesses.
Nurturant	The degree to which the person is described as giving care and attention without making emotional demands, rather than seeking to have one's own needs met.
Punitive	The extent to which the person is described as either physically or emotionally abusive and as inflicting suffering and pain.
Successful	The extent to which the person is described as feeling satisfied with his or her own accomplishments, whatever those accomplishments might be.
Strength (strong–weak)	The extent to which the person is described as effective, efficient, and able to resist pressure and endure, as possessing a stable sense of self, and as appearing to be a consistent figure.

Factor analyses (Blatt et al., 1979; Quinlan, Blatt, Chevron, & Wein, 1992) of these 12 thematic attributes revealed three underlying factors—Benevolent, Punitive, and Striving. The Benevolent factor comprises the attributes affectionate, benevolent, warm, constructive involvement, positive ideal, nurturant, successful, and strong. The Punitive factor includes the attributes judgmental, punitive, and ambivalent. The Striving factor includes the attributes ambitious and intellectual.

The number of these 12 qualitative attributes that can be scored in the description (0 to 12) indicates the degree to which the figure had been articulated.

In addition, the degree of ambivalence expressed when describing the figure can be scored on a 5-point scale, and the length of the description can be assessed on a 7-point scale.

Research findings support the validity of these structural and thematic dimensions. Conceptual complexity of descriptions of parents in nonclinical samples, for example, is significantly related to experiences of depression (Blatt et al., 1979), emotional awareness (Lane, Quinlan, Schwartz, Walker, & Zeitlin, 1990), negotiation strategies, and self-reported acting out (Schultz & Selman, 1989). In a clinical sample, Bornstein and O'Neill (1992) found that psychotic and borderline patients give less

differentiated, conceptually less complex descriptions, and more negative and more ambivalent representations, of both parents than do normal individuals. Moreover, Bornstein and O'Neill found that conceptual complexity is negatively related to degree of psychopathology as assessed on the Global Assessment Scale (GAS; Endicott, Spitzer, Fleiss, & Cohen, 1976), the presence and severity of hallucinations, and the impairment index on the Minnesota Multiphasic Personality Inventory (MMPI; Dahlstrom, Welsh, & Dahlstrom, 1972). Thus, the content and structure of parental representations differ in clinical and nonclinical samples and are related in clinical samples to independent assessments of level of psychopathology and clinical functioning and in nonclinical samples to aspects of general functioning.

Personality Development

Levy et al. (in press) used the spontaneous descriptions of significant others (mother and father) to assess the relationship of the structure and content of mental representations or IWMs to attachment styles in young adults. They found that the content and structure of descriptions given by young adults of their parents was in fact related to the quality of attachment style. Insecure individuals described their parents as more malevolent and punitive than did secure individuals. Moreover, the descriptions of parents by insecure individuals were less cohesive, differentiated, and integrated. Thus, secure attachment appears to involve more stable, consistent, positive, and integrated representations of significant others.

Secure individuals had representations of parents as trustworthy, caring, and emotionally supportive. Securely attached young adults were less ambivalent about their parents. They described both their mothers and fathers as benevolent, warm, affectionate, nonjudgmental, and nonpunitive and also as a positive ideal who is nurturing and constructively involved. In addition, securely attached individuals appeared to grasp more fully the complexity of interpersonal relationships and were able to differentiate more fully themselves from their parents while still maintaining a sense of relatedness. Conversely, insecure individuals represented their parents as more inadequate and uncaring—a finding that is consistent with reports that insecure individuals have difficulty in trusting others and accepting support, as well as in providing support and care for others.

Within the insecure group, avoidant individuals described their parents as cold, judgmental, punitive, and less constructively involved. Anxious–ambivalent individuals also described their parents as punitive and judgmental; but, in contrast to avoidant individuals, they also described their parents as affectionate, warm, and benevolent. Anxious-ambivalent individuals also described their parents as less effective—that is, less successful, less constructively involved, and less of a positive ideal (Levy et al., in press).

In addition, secure and insecure individuals differed in the degree of ambivalence expressed when describing their parents. Both avoidant and anxiously insecure, as compared with secure, individuals expressed significantly greater ambivalence. A differentiation between dismissively and fearfully avoidant insecure individuals revealed that fearfully avoidant and anxiously insecure individuals both express significantly more ambivalence than do secure individuals when describing their parents, but that dismissively avoidant insecure individuals are similar to secure individuals in expressing less ambivalence. Dismissively avoidant individuals expressed relatively little ambivalence when describing their parents because they often gave one-sided, unidimensional descriptions of their parents as either punitive, malevolent, and lacking in warmth or as highly idealized. Thus, their lower ambivalence appears to be a function of a rigid categorization they have of their parents either as extremely negative figures or as idealized caregivers. This one-sided description of parents also led to descriptions that were less differentiated and were at a lower conceptual level. These results were consistent with the findings of Main et al. (1985) that avoidant individuals are unable to integrate both positive and negative qualities of their relationships with their parents. Thus, the relative lack of ambivalence in the descriptions of parents given by dismissively avoidant individuals is different from the relative lack of ambivalence in secure individuals, who generally have positive representations of their parents (Levy et al., in press).

Fearfully avoidant individuals, like dismissively avoidant insecure individuals, represented their parents as more malevolent and punitive.

But their descriptions of their parents were more differentiated and at a higher conceptual level. Although fearful individuals are highly ambivalent about their parents, they, like secure individuals, see the complexity of their relationships and differentiate themselves from their parents. Thus, fearfully avoidant individuals appear developmentally more mature than dismissively avoidant individuals. The dismissive attachment style appears to be a less adaptive expression of avoidant attachment than does fearful avoidance (Levy et al., in press).

That fearful avoidant individuals represented their parents as relatively malevolent, but did so with differentiation and integration and at a conceptual level similar to that displayed by secure individuals, is especially noteworthy because previous research has portrayed fearfully avoidant individuals as divergent from secure individuals on many dimensions and, therefore, as the least secure of the three insecure groups (e.g., Shaver & Hazan, 1993). Fearfully avoidant individuals are often seen as the most distressed and least healthy (i.e., less trusting, less assertive, and so on). Nevertheless, although fearfully avoidant individuals are ambivalent about their parents, they, like secure individuals, think of their parents in complex ways. They integrate good and bad aspects of their parents, and differentiate themselves from parental figures.

These observations are consistent with Bartholomew's (1989) finding that, although fearful individuals, like dismissing individuals, reported parental rejection (i.e., low parental acceptance and involvement), they are no more likely to idealize their parents or to be incoherent during an attachment interview than are secure individuals. Evidently, fearful individuals have had a difficult time with their parents but have achieved a good degree of structural differentiation in their representations of them (Levy et al., in press). Conversely, although dismissively avoidant individuals scored high on measures of self-esteem, they scored low on measures of conceptual level and of relatedness and differentiation. Interestingly, it may be that dismissively avoidant individuals are responsible for the findings that some individuals with high self-esteem distort information in defensive and self-protective ways (e.g., Block & Colvin, 1994; Colvin & Block, 1994; Colvin, Block, & Funder, 1995; Shedler, Mayman, & Manis, 1993, 1994; Taylor & Brown, 1988, 1994a, 1994b). Consistent with the view that dismissively avoidant individuals who have high self-reported self-esteem are more defensive than secure individuals, Bartholomew and Horowitz (1991) found that although dismissing avoidant individuals regarded themselves as friendly and outgoing, their peers viewed them as hostile and autocratic.

By elaborating the content and structure of representations associated with each attachment style in adults, these findings extend the work by social psychologists on adult romantic attachment styles. Fearfully avoidant and dismissive individuals differ not only with regard to their models of self—that is, negative versus positive (see Bartholomew, 1990)—but also with regard to the structure of their parental representations. The delineation of the developmental level of the structure of these representations is particularly important, because differences in cognitive–affective organization may be as important for social behavior as the differences in content that have been the primary focus of much of social psychological research on romantic attachment. It would be worthwhile, for example, to determine how fearfully avoidant individuals achieve higher conceptual levels in their representation of their parents and how these conceptual capacities might lead to increases in the level of security in interpersonal relationships.

These differences in the structure and content of mental representation in the various attachment styles in young adults parallel the findings reported with infants, children, and adolescents (Kobak & Sceery, 1985; Main, 1990; Matas, 1977; Mikulincer, 1995; Sroufe & Waters, 1977) that indicate that secure individuals not only are less anxious and less hostile but also regulate negative feelings more constructively than do either anxious–ambivalent or avoidant individuals. In addition, these results are consistent with research in social cognition on the relation of representations to affect regulation (e.g., Dodge, Price, Bachorowaski, & Newman, 1990; Higgins, 1987, 1989; Linville, 1987; Pipp et al., 1985). Higgins (1989) emphasized the importance of mental representations of caregivers in affect regulation and self-evaluation, and Linville (1987) found that increasing self-complexity serves to moderate emotional responses. Differentiated and integrated representations of

self and other appear to be strongly related to patterns of affect and self regulation.

Although processes of separation and individuation are important during late adolescence and young adulthood (e.g., Blos, 1967, 1979), the findings of Levy et al. (in press) suggest that individuation is facilitated by secure attachment to parents (Avery & Ryan, 1988; Ryan & Lynch, 1989). Representation of parents as supportive and nuturant is related not to dependence but rather to the capacity for individuation. Secure attachment provides a necessary base for the development of a differentiated identity and a sense of agency, as well as of a capacity for cooperation, mutuality, and reciprocity. Thus, attachment is a dynamic developmental process that provides the emotional support necessary for the development of both autonomy and relatedness (Blatt, 1990b; Blatt & Blass, 1990, 1996; Bretherton, 1987).

The Therapeutic Process

The centrality of cognitive–affective schemas in psychological development, in adult interpersonal relationships, and in different forms of psychopathology suggest that these schemas may have important implications for the study of the therapeutic process. If various forms of psychopathology involve distortions of object and self-representation, and if satisfactory childhood attachments in normal development result in the formation of increasingly mature interpersonal schemas, then constructive interactions between patient and therapist should facilitate revisions of impaired or distorted representations of self and object and lead to the development of more integrated and mature object and self-schemas (Behrends & Blatt, 1985; Blatt & Behrends, 1987; Blatt et al., 1975; Blatt, Wiseman, Prince-Gibson, & Gatt, 1991). The therapeutic relationship should create a process through which impaired or distorted interpersonal schemas are relinquished, reworked, and transformed into more adaptive cognitive–affective representations of self and other. Toward the end of treatment, representations should be more differentiated and integrated, with indications of a greater capacity for mutual interpersonal relatedness.

Blatt and colleagues (Blatt et al., in press; Blatt et al., 1996; Blatt et al., 1991; Diamond et al., 1990; Gruen & Blatt, 1990) evaluated changes in the descriptions of self and significant others given by seriously disturbed, treatment-resistant, adolescent and young adult inpatients at the beginning and toward the end of intensive, long-term (more than 1 year), comprehensive, psychodynamically informed inpatient treatment. All patients received similar multifaceted inpatient treatment that included individual and group psychotherapy, each three times weekly; milieu therapy, including a privileges-level system based on behavioral contingencies; involvement in community responsibilities and tri-weekly community meetings; weekly individual family and multifamily therapy; occupational and recreational therapy; and psychopharmacological evaluation and treatment. Patients who had not finished high school also attended an accredited special school run by hospital staff and specially trained teachers. Treatment teams included psychiatrists, psychologists, social workers, teachers, and occupational and recreational therapists.

Change in the descriptions of self and significant figures (i.e., mother, father, and therapist) obtained at admission and discharge was correlated with estimates of change in the level of psychological functioning, as independently assessed from clinical reports prepared routinely at these same times by an interdisciplinary treatment team that included the patient's individual therapist. The case records used to derive these ratings were extensive, behaviorally oriented evaluations prepared at admission and at 6-month intervals, including termination, by various members of the treatment staff. Each patient's level of clinical functioning, at admission or at discharge, was evaluated with the Global Assessment Scale (GAS; Endicott et al., 1976), a 100-point rating scale of the severity of psychopathology.[4] This assessment of clinical

[4] The GAS, a unidimensional scale derived from Luborsky's Health-Sickness Rating Scale (Luborsky and Bachrach, 1974), assesses functioning and severity of psychopathology. It has frequent, well-specified scale points for each of 10 intervals, ranging from a high score of 91 to 100 for "no symptoms, superior functioning in a wide range of activities, life problems never seem to get out of hand, (person) is sought by others because of his warmth and integrity," through a score of 51 to 60 at midrange for "moderate symptoms or generally functioning with some difficulty (e.g., few friends and flat affect, depressed mood, and pathological self-doubt, euphoric mood and pressure of speech, moderately severe antisocial behavior"; to a low score of 1 to 10 for "needs constant supervision for several days to

improvement during treatment was made from independently prepared clinical case records by an experienced clinical psychologist who had achieved a high level of interrater reliability (intraclass correlation = .87) with the GAS in a sample of chronically disturbed outpatients and who was blind to the content of the descriptions of self and significant others. Clinical reports and descriptions of significant figures were scored by independent raters blind both to the identity of the patients and the point in treatment from which the relevant material was sampled (Blatt et al., 1996; Blatt et al., in press).

Correlations at admission of independent assessment of level of clinical functioning (GAS scores) with structural and qualitative features of the initial descriptions of significant others indicated that the conceptual level of the descriptions of both mother and father at initial assessment had a significant negative correlation with initial level of clinical functioning. Likewise, longer and more articulated descriptions (i.e., those with a greater number of scoreable attributes) at admission were also correlated negatively with initial level of clinical functioning. Thus, increased investment in the description of significant others at the beginning of hospitalization of seriously disturbed adolescent and young adults was characteristic of the more disturbed patients. Inspection of these descriptions of significant others at initial assessment suggested that these descriptions were longer, more articulated, and occasionally organized at an internal-iconic cognitive level because some patients seemed acutely attuned to the experiences and internal states of their parents but in a manner that suggested overinvolvement and enmeshment, rather than an appreciation of the parent as a separate individual (Blatt et al., 1996).

Level of ambivalence in these initial descriptions was correlated negatively with higher levels of clinical functioning at admission. More disturbed patients had significantly greater ambivalence when describing their parents. Initial levels of clinical functioning, however, had no significant relationship with any of the qualitative features of the descriptions. In contrast to the significant negative relationships between the level of clinical functioning at admission and the cognitive complexity and degree of investment in the initial descriptions of significant others, the initial level of clinical functioning was significantly and positively related to the degree of differentiation relatedness, but only for the self-description (Blatt et al., 1996). This highly significant relationship of the level of clinical functioning at admission to the degree of differentiation and relatedness of the self-description calls attention to the potentially important role of self-representation in clinical phenomena (Segal & Blatt, 1993).

The descriptions of all four figures (mother, father, therapist, and self) at the beginning of treatment were generally unintegrated and involved oscillations between polarized qualities (i.e., all-good or all-bad) or an emphasis on concrete part properties (differentiation-relatedness Level 5). Nevertheless, patients who eventually had greater clinical improvement, as determined by a median split of the distribution of the differences between admission and discharge GAS ratings, initially described their therapists in a manner that was already approaching the emergence of object constancy, while those who were to show less improvement started at the level of polarization and splitting in describing their therapists. At discharge, those patients with greater therapeutic change had a

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prevent hurting self or others (e.g., requires an intensive care unit with special observation by staff), makes no attempt to maintain minimal personal hygiene, or serious suicidal act with clear intent and expectations of death" (Endicott et al., 1976, p. 768). GAS ratings can be derived from clinical case records or from direct clinical observation and interviews. This scale has been found to be especially sensitive to changes in clinical functioning and severity of psychiatric disturbance (Endicott et al., 1976). Studies of concurrent validity indicate that ratings on the GAS are comparable to rating on the Mental Status Examination Record (MSER, a structured interview schedule; Endicott et al. 1976) and the Psychiatric Status Schedule (PSS; Spitzer et al., 1970), as well as to evaluations based on interviews with family members of assessed patients. Ratings on the GAS are more sensitive to changes in patients' levels of clinical functioning than either the MSER or the PSS (Endicott et al., 1976). In four reliability studies, interrater reliability for the GAS ranged from .69 to .85 (Endicott et al., 1976). The mean GAS score for this sample was 33.75 at admission and 43.25 at discharge. GAS scores of 31 to 40 "indicate major impairment in several areas, such as work, family relations, judgment, thinking, or mood . . . or some impairment in reality testing or communication (e.g., speech at times obscure, illogical, or irrelevant) or a single serious suicide attempt." GAS scores of 41 to 50 indicate "serious symptomatology or impairment in functioning that most clinicians would think obviously requires treatment or attention (e.g., suicidal preoccupation or gesture, severe obsessional rituals, frequent anxiety attacks, serious antisocial behavior, compulsive drinking"; Endicott et al., 1976, p. 768).

consolidation of object constancy (differentiation-relatedness Level 7), whereas patients with less improvement had just achieved the emergence of object constancy (Level 6)—that is, an emergent ability to tolerate and to begin to integrate contradictory aspects of significant figures in their lives—and then only in their therapist descriptions. This emergent object constancy in clinically improving patients might also be viewed as a beginning of the capacity to maintain stable, cohesive representations of self and others despite immediate emotional disturbances in relationships to significant figures (Blatt et al., in press). In addition, differentiation relatedness for all four figures was higher at discharge among patients who were independently judged to have made marked clinical improvement than among patients who were considered to have improved less (Blatt et al., in press).

Partial correlations of changes in mental representation (i.e., in differentiation-relatedness) of self and significant others with changes in level of general clinical functioning (i.e., GAS scores), controlling for initial levels (Time 2/Time 1), indicated highly significant relationships between degree of clinical improvement after at least one year of treatment and increases in differentiation-relatedness. Independent assessments of the degree of clinical improvement, through GAS scores, were correlated to a highly significant degree ($p < .001$) with increased differentiation-relatedness in the descriptions of mother, therapist, self, and, to a less significant degree ($p < .05$), with the description of father. Significant relationships were also found between the degree of clinical improvement and increased articulation (i.e., greater number of scorable attributes) in the descriptions of father, mother, and therapist. Thus, progress in treatment was also related to increased articulation of significant others (Blatt et al., 1996).

Increased conceptual level of the description of father also correlated significantly with clinical improvement. In addition, there was a trend for increased conceptual level of the description of the therapist to correlate with clinical improvement ($p < .10$). Despite the significant negative relationship between initial level of clinical functioning and both conceptual level and number of scorable attributes in the initial descriptions, clinical improvement was accompanied by significant increase in both these dimensions (Blatt et al., 1996).

Thus, therapeutic progress was associated with increased articulation and differentiation of significant figures, especially mother and therapist, and with an increased capacity for representing mutual interpersonal relatedness. These changes in structural dimensions of the representations were independent of change in the length of the description. Findings with conceptual level, however, were more equivocal. Increased conceptual level was significantly related to clinical improvement, but only for the description of father. In other words, the pattern of the relationship between clinical improvement and changes on the structural dimensions of representation were consistent across the representations of mother, therapist, and self, but the representation of father did not follow this general pattern (Blatt et al., 1996).

The unique role of the representation of father in the treatment process was clarified by analyses of the relationship between changes in the content of the descriptions and change in level of clinical functioning. Clinical improvement correlated significantly with an increase in the Benevolent factor for the therapist. The degree of clinical improvement was also significantly related to changes in the Benevolent factor in the description of father, but in the opposite direction. Improved clinical functioning correlated with a decrease in the Benevolent factor in the description of father, with father described as less warm, less constructively involved, and less nurturant. In contrast, improved clinical functioning was related to descriptions of mother as warmer and to descriptions of therapist as more benevolent, warmer, and more constructively involved. There were also trends for clinical improvement to be related to descriptions of both mother and of therapist as a more positive ideal (Blatt et al., 1996).

These findings, along with the different pattern of change in the structure of the description of father, suggested that a primary effect of treatment with seriously disturbed treatment-resistant adolescent and young adult inpatients may be to facilitate their capacity to establish an increased sense of mutuality in representations of mother and therapist and a greater sense of separation and individuation in representations of father (Blatt et al., 1996).

A further extension of this psychodynamic formulation suggests that clinical improvement correlates with an increasingly negative view of father, in contrast to a more positive view the therapist and mother, because father is the figure most likely to serve as a container for patients' negative (e.g., hostile, critical, dysphoric, or painful) feelings. This dynamic may be especially apparent in the sample studied, in which the predominant diagnosis involved character pathology and in which the patients often use hostile and negative feelings toward authority figures to establish and consolidate their struggles for differentiation (Blatt et al., 1996).

Taken together, therefore, these analyses (Blatt et al., 1996; Blatt et al., in press) indicate that long-term, psychoanalytically oriented, inpatient treatment results in substantial increases in differentiation-relatedness in seriously disturbed patients. Patients entered treatment with object representations dominated by polarization and splitting—that is, by the keeping apart of good and bad aspects of an object representation in a struggle to preserve an emotional tie to the good aspects of the object—and they ended treatment with object representations that involved the emergence of or, in the case of their therapist descriptions, the consolidation of object constancy, in which there is a beginning integration of positive and negative elements. Patients with greater clinical improvement had significantly higher differentiation-relatedness ratings, especially for their descriptions of their therapists. The differentiation-relatedness scores were higher for therapist than for any of the other three significant figures described—mother, father, or self (Blatt et al., in press).

Thus, therapeutic progress in the treatment of seriously disturbed young adults was accompanied by significant revisions of the mental representations of self and significant others (i.e., mother, father, and therapist) during the course of long-term, intensive inpatient treatment. Descriptions of self and others, especially for patients independently judged to have made considerable therapeutic progress, became more differentiated and consolidated, with an increased potential for mutual interpersonal relatedness. Specifically, the representations of patients moved from a level of polarization and splitting (i.e., overstated, one-sided, idealized, or denigrated descriptions) to levels of object constancy (i.e., descriptions involving an integration of contradictory and disparate elements). These changes in the developmental level of representations were independent of the length of the description, and they occurred in the description of all four figures—mother, father, therapist, and self (Blatt et al., in press).

In consequence, these previously treatment-resistant patients had progressed from representations dominated by polarization and splitting to representations involving evocative constancy (Adler & Buie, 1979; Blatt & Auerbach, 1988; Blatt & Shichman, 1983). Psychoanalytic theory associates these changes in mental representations with a progression from a borderline to a neurotic level of personality organization (Kernberg, 1975, 1976, 1984), a shift from the paranoid–schizoid to the depressive position (Klein, 1935, 1946; cf. Blatt & Shichman, 1983), or an integration of multiple aspects (e.g., subjective with objective, private with public, or "true" with "false") of the self (Auerbach, 1993; Bach, 1985; Broucek, 1991; Modell, 1993; Stern, 1985; Winnicott, 1965). But whatever descriptive clinical terminology one uses, the observed transformation involves a shift from fragmented to more integrated representations that approach the consolidation associated with object constancy. The emergence of object constancy in this sample of seriously disturbed, treatment-resistant patients is an impressive clinical achievement (Blatt et al., in press).

To be sure, the patients remained some distance from fully mature object relations and object representations—that is, from the ability to appreciate fully the uniqueness of, and the nature of one's relatedness to, another—but the development of the capacity to tolerate ambivalent feelings about significant objects should be viewed as an important and necessary step on the way to this more mature level of interpersonal relatedness. It is therefore important to determine what factors might predict this transformation in object relations and the emergence of the representational capacity for object constancy.

The findings also indicated the crucial role of the therapist in facilitating clinical change. Patients with greater change had higher initial differentiation-relatedness scores for their therapist descriptions than did patients with less change. And differentiation-relatedness was

higher for therapist descriptions than for those of each of the other three figures, that is, mother, father, or self (Blatt et al., in press). Future research needs to be directed toward understanding the processes through which the therapeutic process leads to these changes in cognitive–affective schemas (see Blatt & Behrends, 1987). Such research also needs to clarify the processes through which these changes in representations of self and others relate to changes in the broad range of cognitive processes and also in the quality of interpersonal relationships, both in the clinical context (i.e., the therapeutic relationship) and in interpersonal experiences more generally.

Summary

Theoretical formulations and empirical investigations indicate that mental representations or cognitive-affective schemas play a central role in personality development and organization. The assessment of the content and structure of mental representations provides a basis for evaluating aspects of normal development, as well as of therapeutic change in long-term intensive treatment of seriously disturbed patients. The content and structure of mental representations can also provide a basis for differentiating among various forms of psychopathology and for constructing a more effective diagnostic taxonomy (Blatt & Levy, in press) than that currently available in the *Diagnostic and Statistical Manual of Mental Disorders* (1994) of the American Psychiatric Association. An integration of concepts from psychoanalytic object relations theory, cognitive developmental psychology, social cognition, and cognitive science offers a representational approach to the study of psychological phenomena and establishes links among normal development, psychopathology, and therapeutic change.

References

Adler, G., & Buie, D. H., Jr. (1979). Aloneness and borderline psychopathology: The possible relevance of child development issues. *International Journal of Psycho-Analysis, 60,* 83–96.

Ainsworth, M. D. S. (1969). Object relations, dependency, and attachment: A theoretical review of the mother-infant relationship. *Child Development, 40,* 969–1025.

Ainsworth, M. D. S. (1982). Attachment: Retrospect and prospect. In C. M. Parkes & J. Stevenson-Hinde (Eds.), *The place of attachment in human behavior* (pp. 3–30). New York: Basic Books.

Ainsworth, M. D. S. (1985). Attachments across the life-span. *Bulletin of the New York Academy of Medicine, 61,* 792–812.

Ainsworth, M. D. S., Blehar, M. E., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation.* Hillsdale, NJ: Erlbaum.

American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.

Anderson, J. R. (1983). *The architecture of cognition.* Cambridge, MA: Harvard University Press.

Aron, L. (1996). *A meeting of minds: Mutuality in psychoanalysis.* Hillsdale, NJ: Analytic Press.

Auerbach, J. S. (1993). The origins of narcissism and narcissistic personality disorder: A theoretical and empirical reformulation. In J. M. Masling & R. F. Bornstein (Eds.), *Empirical studies of psychoanalytic theories: Vol. 4. Psychoanalytic perspectives on psychopathology* (pp. 43–110). Washington, DC: American Psychological Association.

Auerbach, J. S., & Blatt, S. J. (1996). Self-representation in severe psychopathology: The role of reflexive self-awareness. *Psychoanalytic Psychology, 13,* 297–341.

Auerbach, J. S., & Blatt, S. J. (1997). Impairment of self-representation in schizophrenia: The roles of boundary articulation and self-reflexivity. *Bulletin of the Menninger Clinic, 46,* 297–316.

Avery, R. R., & Ryan, R. M. (1988). Object relations and ego development: Comparison and correlates in middle childhood. *Journal of Personality, 56,* 547–569.

Bach, S. (1985). *Narcissistic states and the therapeutic process.* New York: Aronson.

Bartholomew, K. (1989). *Attachment styles in young adults: Implications of self-concept and interpersonal functioning.* Unpublished Doctoral Dissertation, Stanford University, Palo Alto, CA.

Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships, 7,* 147–178.

Bartholomew, K., & Horowitz, L. (1991). A four category model of attachment. *Journal of Personality and Social Psychology, 61,* 226–241.

Beebe, B. (1986). Mother-infant mutual influence and precursors of self and object representations. In J. Masling (Ed.), *Empirical studies of psychoanalytic theories* (Vol. 2, pp. 27–48). Hillsdale, NJ: Analytic Press.

Beebe, B., & Lachmann, F. M. (1988). The contribution of mother-infant mutual influence to the origins of self- and object representations. *Psychoanalytic Psychology, 5,* 305–337.

Behrends, R. S., & Blatt, S. J. (1985). Internalization and psychological development throughout the life cycle. *Psychoanalytic Study of the Child, 40,* 11–39.

Benjamin, J. (1995). *Like subjects, love objects: Essays on recognition and sexual differences.* New Haven: Yale University Press.

Beres, D., & Joseph, E. (1970). The concept of mental representation in psychoanalysis. *International Journal of Psycho-Analysis, 51,* 1–9.

Blatt, S. J. (1974). Levels of object representation in anaclitic and introjective depression. *Psychoanalytic Study of the Child, 29,* 107–157.

Blatt, S. J. (1990a). The Rorschach: A test of perception or an evaluation of representation. *Journal of Personality Assessment, 54,* 236–251.

Blatt, S. J. (1990b). Interpersonal relatedness and self-definition: Two personality configurations and their implications for psychopathology and psychotherapy. In J. L. Singer (Ed.), *Repression and dissociation: Implications for personality theory, psychopathology & health* (pp. 299–335). Chicago: University of Chicago Press.

Blatt, S. J. (1991). A cognitive morphology of psychopathology. *Journal of Nervous and Mental Disease, 179,* 449–458.

Blatt, S. J. (1995). Representational structures in psychopathology. In D. Cicchetti & S. Toth (Eds.), *Rochester Symposium on Developmental Psychopathology, Vol. 6: Emotion, Cognition, and Representation* (pp. 1–33). Rochester, NY: University of Rochester Press.

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., Auerbach, J. S., & Aryan, M. (in press). Representational structures and the therapeutic process. In H. Kurtzman (Ed.), *Cognition and psychodynamics: New Perspectives.* New York: Oxford University Press.

Blatt, S. J., & Behrends, R. S. (1987). Internalization, separation-individuation, and the nature of therapeutic action. *International Journal of Psychoanalysis, 68,* 279–297.

Blatt, S. J., & Blass, R. B. (1990). Attachment and separateness: A dialectic model of the products and processes of psychological development. *Psychoanalytic Study of the Child, 45,* 107–127.

Blatt, S. J., & Blass, R. B. (1992). Relatedness and self-definition: Two primary dimensions in personality development, psychopathology, and psychotherapy. In J. Barron, M. Eagle, & D. Wolitsky (Eds.), *The interface between psychoanalysis and psychology* (pp. 399–428). Washington, DC: American Psychological Association.

Blatt, S. J., & Blass, R. B. (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: Erlbaum.

Blatt, S.J., Brenneis, C.B., Schimek, J.G., & Glick, M. (1976). The normal development and psychopathological impairment of the concept of the object on the Rorschach. *Journal of Abnormal Psychology, 85,* 364–373.

Blatt, S. J., Chevron, E. S., Quinlan, D. M., Schaffer, C. E., & Wein, S. J. (1988). *The assessment of qualitative and structural dimensions of object representations* (Rev. ed.). Unpublished research manual, Yale University, New Haven, CT.

Blatt, S. J., & Homann, E. (1992). Parent-child interaction in the etiology of dependent and self-critical depression. *Clinical Psychology Review, 12,* 47–91.

Blatt, S. J., & Lerner, H. D. (1983). Psychodynamic perspectives on personality theory. In M. Hersen, A. S. Kazdin, & A. S. Bellak, A. S. (Eds.) *Clinical psychology handbook.* New York: Pergamon Press.

Blatt, S. J., & Levy, K. N. (in press). A psychodynamic approach to the diagnosis of psychopathology. In J. W. Barron (Ed.), *Making diagnosis meaningful.* Washington, DC: American Psychological Association.

Blatt, S. J., & Maroudas, C. (1992). Convergence of psychoanalytic and cognitive behavioral theories of depression. *Psychoanalytic Psychology, 9,* 157–190.

Blatt, S. J., & Ritzler, B. A. (1974). Thought disorder and boundary disturbances in psychosis. *Journal of Consulting and Clinical Psychology, 42,* 370–381.

Blatt, S. J., Schimek, J., & Brenneis, C. B. (1980). The nature of the psychotic experience and its implications for the therapeutic process. In J. Strauss et al. (Eds.), *The psychotherapy of schizophrenia.* New York: Plenum.

Blatt, S. J., & Shichman, S. (1983). Two primary configurations of psychopathology. *Psychoanalysis and Contemporary Thought, 6,* 187–254.

Blatt, S. J., Stayner, D. A., 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., Wein, S. J., Chevron, E. S., & Quinlan, D. M. (1979). Parental representations and depression in normal young adults. *Journal of Abnormal Psychology, 88,* 388–397.

Blatt, S. J., & Wild, C. M. (1976). *Schizophrenia: A developmental analysis.* New York: 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., Wiseman, H., Prince-Gibson, E., & Gatt, H. (1991). Object representation and change in clinical functioning. *Psychotherapy, 28,* 273–283.

Blatt, S. J., & Zuroff, D. C. (1992). Interpersonal relatedness and self-definition: Two prototypes for depression. *Clinical Psychology Review, 12,* 527–562.

Block, J., & Colvin, C. R. (1994). Positive illusions and well-being revisited: Separating fiction from fact. *Psychological Bulletin, 116,* 28.

Blos, P. (1967). The second individuation process of adolescence. *Psychoanalytic Study of the Child, 22,* 162–186.

Blos, P. (1979). *The adolescent passage.* New York: International Universities Press.

Blum, G. S. (1961). *A model of the mind.* New York: Wiley.

Blum, H. P. (1986). Countertransference and the theory of technique: Discussion. *Journal of the American Psychoanalytic Association, 34,* 309–328.

Bornstein, R. F., & O'Neill, R. M. (1992). Perceptions of parents and psychopathology. *Journal of Nervous and Mental Disorders, 180,* 475–483.

Bowlby, J. (1969). *Attachment and loss: Vol 1. Attachment.* New York: Basic Books.

Bowlby, J. (1973). *Attachment and loss: Vol 2. Separation: Anxiety and anger.* New York: Basic Books.

Bowlby, J. (1988). *A secure base: Clinical applications of attachment theory.* London: Routledge & Kegan Paul.

Brennan, K. A., & Shaver, P. R. (1993). Attachment styles and parental divorce. *Journal of Divorce and Remarriage, 21,* 161–175.

Brennan, K. A., & Shaver, P. R. (1994). Dimensions of adult attachment, affect regulation, and romantic relationship functioning. *Personality and Social Psychology Bulletin, 21,* 267–283.

Brennan, K. A., Shaver, P. R., & Tobey, A. E. (1991). Attachment styles, gender, and parental drinking. *Journal of Social and Personal Relationships, 8,* 451–466.

Bretherton, I. (1985). Attachment theory: Retrospect and prospect. In I. Bretherton & E. Waters (Eds.), Growing points in attachment, *Monographs of the Society for Research in Child Development, 50,* 3–35.

Bretherton, I. (1987). Security, communication, and internal working models. In J. Osofosky (Ed.), *Handbook of infant development* (pp. 1061–1100). New York: Wiley.

Brewer, W. F., & Nakamura, G. V. (1984). The nature and function of schemas. In R. S. Wyer & T. K. Srull (Eds.), *Handbook of social cognition.* Hillsdale, NJ: Erlbaum.

Broucek, F. J. (1991). *Shame and the self.* New York: Guilford Press.

Bruner, J. S. (1964). The course of cognitive growth. *American Psychologist, 19,* 1–15.

Cicchetti, D., & Aber, L. J. (1986). Early precursors of later depression: An organizational perspective. *Advances in infant research, 4,* 87–137.

Colvin, C. R., & Block, J. (1994). Do positive illusions foster mental health? An examination of the Taylor and Brown formulation. *Psychological Bulletin, 116,* 3–20.

Colvin, C. R., Block, J., & Funder, D. C. (1995). Overly positive self-evaluations and personality: Negative implications for mental health. *Journal of Personality and Social Psychology, 68,* 1152–1162.

Coonerty, S. (1986). An exploration of separation-individuation themes in borderline personality disorder. *Journal of Personality Assessment, 50,* 501–511.

Crittenden, P. (1988). Relationships at risk. In J. Belsky & T. Nezworski (Eds.), *Clinical implications of attachment* (pp. 136–174). Hillsdale, NJ: Erlbaum.

Dahlstrom, W. G., Welsh, G. S., & Dahlstrom, L. E. (1972). An MMPI handbook: Vol. 1. Clinical interpretation (Rev. ed.). Minneapolis: University of Minnesota Press.

Damon, W., & Hart, D. (1988). *Self-understanding in childhood and adolescence.* Cambridge, England: Cambridge University Press.

Diamond, D., & Blatt, S. J. (1994). Internal working models and the representational world in attachment and psychoanalytic theories. In M. B. Sperling and W. H. Berman (Eds.), *Attachment in adults: Clinical and developmental perspectives* (pp. 72–97). New York: Guilford Press.

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.

Diamond, D., Kaslow, N., Coonerty, S., & Blatt, S. J. (1990). Change in separation-individuation and intersubjectivity in long-term treatment. *Psychoanalytic Psychology, 7,* 363–397.

Dodge, K. A., Price, J. M., Bachorowaski, J., & Newman, J. P. (1990). Hostile attributional biases in severely aggressive adolescents. *Journal of Abnormal Psychology, 99,* 385–392.

Elicker, J., Englund, M., & Sroufe, L. A. (1993). Predicting peer competence and peer relationships in childhood from early parent-child relationships. In R. D. Parke & G. W. Ladd (Eds.), *Family-peer relationships: Modes of linkage* (pp. 77–106). Hillsdale, NJ: Erlbaum.

Endicott, J., Spitzer, R. L., Fleiss, J. L., & Cohen, J. (1976). The Global Assessment Scale: A procedure for measuring overall severity of psychiatric disturbance. *Archives of General Psychiatry, 33,* 766–771.

Erdelyi, M. H. (1985). *Psychoanalysis: Freud's cognitive psychology.* Oxford, England: Freeman.

Feeney, B. C., & Kirkpatrick, L. A. (1996). Effects of adult attachment and presence of romantic partners on physiological responses to stress. *Journal of Personality and Social Psychology, 70,* 255–270.

Feldman, R., & Blatt, S. J. (1996). Precursors of relatedness and self-definition in mother-infant interaction. In J. Masling & R. F. Bornstein (Eds.), *Empirical studies of psychoanalytic theories: Vol. 6. Psychoanalytic perspectives on developmental psychology* (pp. 1–42). Washington, DC: American Psychological Association.

Fischer, K. W. (1980). A theory of cognitive development: The control and construction of hierarchies of skills. *Psychological Review, 87,* 477–531.

Fiske, S. T., & Taylor, S. E. (1984). *Social cognition.* New York: Random House.

Fonagy, P., Steele, H., & Steele, M. (1991). Maternal representations of attachment during pregnancy predict the organization of infant-mother attachment at one year of age. *Child Development, 62,* 891–905.

Fonagy, P., Steele, M., Steele, H., Leigh, T., Kennedy, R., Mattoon, G., & Target, M. (1995). Attachment, the reflective self, and borderline states: The predictive specificity of the Adult Attachment Interview and pathological emotional development. In S. Goldberg, R. Muir, & J. Kerr (Eds.), *Attachment theory: Social, developmental, and clinical perspectives* (pp. 233–278). Hillsdale, NJ: Analytic Press.

Gardner, H. (1985). *The mind's new science: A history of the cognitive revolution.* New York: Basic Books.

Grossmann, K. E., & Grossmann, K. (1991). Attachment quality as an organizer of emotional behavioral responses in a longitudinal perspective. In C. M. Parkes, J. Steveson-Hinde, & P. Marris (Eds.), *Attachment across the life cycle* (pp. 93–114). London: Tavistock/Routledge.

Gruen, R. J., & Blatt, S. J. (1990). Change in self- and object representation during long-term dynamically oriented treatment. *Psychoanalytic Psychology, 7,* 399–422.

Guntrip, H. (1971). *Psychoanalytic theory, therapy and the self.* New York: Basic Books.

Hamilton, C. (1994). *Continuity and discontinuity of attachment from infancy through adolescence.* Unpublished doctoral dissertation, University of California, Los Angeles.

Hazan, C., & Hutt, M. (1993). *Patterns of adaption: Attachment differences in psychosocial functioning during the first year of college.* Unpublished manuscript, Cornell University, Ithaca, NY.

Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52,* 511–524.

Hazan, C., & Shaver, P. R. (1990). Love and work: An attachment-theoretical perspective. *Journal of Personality and Social Psychology, 59,* 270–280.

Hazan, C., & Shaver, P. R. (1994). Attachment as an organizational framework for research on close relationships. *Psychological Inquiry, 5,* 1–22.

Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94,* 319–340.

Higgins, E. T. (1989). Continuities and discontinuities in self-regulatory and self-evaluative processes: A developmental theory relating self and affect. *Journal of Personality, 57,* 407–444.

Homann, E. (1991). *Parent-child interaction in dependent and self critical depression.* Unpublished master's thesis, University of Michigan, Ann Arbor, MI.

Horowitz, M. J. (1972). Modes of representation of thought. *Journal of the American Psychoanalytical Association, 20,* 793–819.

Horowitz, M. J. (1988). *Introduction to psychodynamics: A new synthesis.* New York: Basic Books.

Jacobson, E. (1964). *The self and the object world.* New York: International Universities Press.

Jordan, J. V. (1986). *The meaning of mutuality* (Work in progress papers, No. 23). Wellesley, MA: Wellesley College, Stone Center.

Kegan, R. (1982). *The evolving self: Problem and process in human development.* Cambridge, MA: Harvard University Press.

Kernberg, O. F. (1975). *Borderline conditions and pathological narcissism.* New York: Aronson.

Kernberg, O. F. (1976). *Object relations theory and clinical psychoanalysis.* New York: Aronson.

Kernberg, O. F. (1977). Boundaries and structure in love relations. *Journal of the American Psychoanalytic Association, 25,* 81–114.

Kernberg, O. F. (1984). *Severe personality disorders: Psychotherapeutic strategies.* New Haven, CT: Yale University Press.

Kernberg, O. F. (1995). Psychoanalytic object relations theories. In B. E. Moore & B. Fine (Eds.), *Psychoanalysis: The major concepts* (pp. 450–462). New Haven CT: Yale University Press.

Kirkpatrick, L. A., & Davis, K. E. (1994). Attachment style, gender, and relationship stability: A longitudinal analysis. *Journal of Personality and Social Psychology, 66,* 502–512.

Klein, M. (1935). A contribution to the psychogenesis of manic-depressive states. *International Journal of Psycho-Analysis, 16,* 145–173.

Klein, M. (1946). Notes on some schizoid mechanisms. *International Journal of Psycho-Analysis, 27,* 99–110.

Kobak, R. R., & Sceery, A. (1985). Attachment in late adolescence: Working models affect regulation,

and perception of self and others. *Child Development, 59,* 135–146.

Kohut, H. (1971). *The analysis of the self: A systematic approach to the psychoanalytic treatment of narcissistic personality disorders.* New York: International Universities Press.

Krohn, A., & Mayman, M. (1974). Levels of object representation in dreams and projective tests. *Bulletin of the Menninger Clinic, 38,* 445–466.

Lane, R. D., Quinlan, D. M., Schwartz, G. E., Walker, P. A., & Zeitlin, S. B. (1990). The levels of emotional awareness scale: A cognitive-developmental measure of emotion. *Journal of Personality Assessment, 55,* 124–134.

Leichtman, M. (1996). *The Rorschach: A developmental perspective.* Hillsdale, NJ: Analytic Press.

Levy, K. N., Blatt, S. J., & Shaver, P. R. (in press). Attachment styles and parental representations. *Journal of Personality & Social Psychology: Personality Processes and Individual Differences.*

Lichtenberg, J. D. (1983). *Psychoanalysis and infant research.* Hillsdale, NJ: Analytic Press.

Linville, P. W. (1987). "Don't put all your eggs in one basket": Self-complexity as a cognitive buffer against stress-related illness and depression. *Journal of Personality and Social Psychology, 5,* 621–648.

Loewald, H. W. (1960). On the therapeutic action of psychoanalysis. *International Journal of Psycho-Analysis, 41,* 16–33.

Loewald, H. W. (1978). Instinct theory, object relations, and psychic structure formation. *Journal of the American Psychoanalytic Association, 26,* 493–505.

Luborsky, L., & Bachrach, H. (1974). Factors influencing clinician's judgments of mental health: Eighteen experiences with the Health-Sickness Rating Scale. *Archives of General Psychiatry, 31,* 292–299.

Lyons-Ruth, K. (1991). Rapprochement or approchement: Mahler's theory reconsidered from the vantage point of recent research on early attachment relationships. *Psychoanalytic Psychology, 8,* 1–24.

Mahler, M. S., Pine, F., & Bergman, A. (1975). *The psychological birth of the human infant.* New York: Basic Books.

Main, M. (1990). Cross-cultural studies of attachment organization: Recent studies, changing methodologies, and the concept of conditional strategies. *Human Development, 33,* 48–61.

Main, M. (1991). Metacognitive knowledge, metacognitive monitoring, and singular (coherent) vs. multiple (incoherent) model of attachment: Findings and directions for future research. In C. M. Parkes, J. Stevenson-Hinde, & P. Marris (Eds.), *Attachment across the life cycle* (pp. 127–159). London: Routledge.

Main, M., & Cassidy, J. (1988). Categories of response to reunion with the parent at age 6: Predictable from infant attachment classifications and stable over a 1 month period. *Developmental Psychology, 24,* 415–426.

Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood and adulthood: A move to the level of representation. In I. Bretherton & E. Waters (Eds.), Growing points in attachment theory and research. *Monographs of the Society for Research in Child Development, 50,* 66–104.

Main, M., & Solomon, J. (1990). Procedures for identifying infants as disorganized/disoriented during the Ainsworth Strange Situation. In M. T. Greenberg, D. Cicchetti, & E. M. Cummings (Eds.), *Attachment in the preschool years: Theory, research and intervention* (pp. 95–124). Chicago: University of Chicago Press.

Mandler, J. M. (1988). How to build a baby: On the development of an accessible representational system. *Cognitive Development, 3,* 113–136.

Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology, 35,* 63–78.

Matas, L. (1977). *Mother-infant attachment: Implications for understanding the two-year old.* Unpublished doctoral dissertation, University of Minnesota, Minneapolis.

Mayman, M. (1967). Object-representations and object-relationships in Rorschach responses. *Journal of Projective Techniques and Personality Assessment, 31,* 17–24.

Mikulincer, M. (1995). Attachment style and the mental representation of the self. *Journal of Personality and Social Psychology, 69,* 1203–1215.

Mikulincer, M., & Nachshon, O. (1991). Attachment styles and patterns of self-disclosure. *Journal of Personality and Social Psychology, 61,* 321–331.

Miller, J. B. (1984). *The development of women's sense of self* (Work in progress papers, No. 84-01). Wellesley, MA: Wellesley College, Stone Center.

Mitchell, S. A. (1988). *Relational concepts in psychoanalysis: An integration.* Cambridge, MA: Harvard University Press.

Modell, A. H. (1993). *The private self.* Cambridge, MA: Harvard University Press.

Nelson, K., & Grundel, J. (1987). Generalized event representations. Basic building blocks of cognitive development. In M. Lamb & A. L. Brown (Eds.), *Advances in developmental psychology* (Vol. 1, pp. 131–158). Hillsdale, NJ: Erlbaum.

Nigg, J. T., Lohr, N. E., Western, D., Gold, L. J., & Silk, K. R. (1992). Malevolent object representation in borderline personality disorder and major depression. *Journal of Abnormal Psychology, 101,* 61–67.

Ogden, T. H. (1986). *Matrix of the mind: Object relations and the psychoanalytic dialogue.* Northvale, NJ: J. Aronson.

Patterson, R. J., & Moran, G. (1988). Attachment theory, personality development and psychotherapy. *Clinical Psychology Review, 8,* 611–636.

Piaget, J. (1962). *Play, dreams and imitation in childhood* (C. Gattegno & F. M. Hodgson, Trans.). New York: Norton. (Original work published 1945)

Pipp, S., Shaver, P. R., Jennings, S., Lamborn, S., & Fischer, K. (1985). Adolescents' theories about development of their relationships with parents. *Journal of Personality and Social Psychology, 48,* 991–1001.

Quinlan, D. M., Blatt, S. J., Chevron, E. S., & Wein, S. J. (1992). The analysis of descriptions of parents: Identification of a more differentiated factor structure. *Journal of Personality Assessment, 59,* 340–351.

Rothbard, J. C., & Shaver, P. R. (1994). Continuity of attachment across the life span. In M. B. Sperling & W. H. Berman (Eds.), *Attachment in adults: Clinical and developmental perspectives* (pp. 31–71). New York: Guilford Press.

Ryan, E. R., & Bell, M. D. (1984). Changes in object relations from psychosis to recovery. *Journal of Abnormal Psychology, 93,* 209–215.

Ryan, R. M., & Lynch, J. H. (1989). Emotional autonomy versus detachment: Revisiting the vicissitudes of adolescence and young adulthood. *Child Development, 60,* 340–356.

Sander, L. W. (1984). Polarity, paradox, and the organizing process in development. In J. Call, E. Galenson, & R. Tyson (Eds.), *Frontiers of infant psychiatry* (pp. 315–327). New York: Basic Books.

Sandler, J., & Rosenblatt, B. (1962). The concept of the representational world. *Psychoanalytic Study of the Child, 17,* 128–145.

Schultz, L. H., & Selman, R. L. (1989). Bridging the gap between interpersonal thought and action in early adolescence: The role of psychodynamic processes. *Development and Psychopathology, 1,* 133–152.

Segal, Z. V., & Blatt, S. J. (Eds.). (1993). *The self in emotional distress: Cognitive and psychodynamic perspectives.* New York: Guilford Press.

Shaver, P. R., & Brennan, K. A. (1992). Attachment styles and the "Big Five" personality traits: Their connections with each other and with romantic attachment outcome. *Personality and Social Psychology Bulletin, 18,* 536–545.

Shaver, P. R., & Hazan, C. (1987). Being lonely, falling in love: Perspectives from attachment theory. In M. Hojat & R. Crandall (Eds.), Loneliness: Theory, research, and applications. [Special Issue]. *Journal of Social Behavior and Personality, 2,* 105–124.

Shaver, P. R., & Hazan, C. (1993). Adult romantic attachment: Theory and evidence. In D. Perlman & W. Jones (Eds.), *Advances in personal relationships* (Vol. 4, pp. 29–70). London: Jessica Kingsley.

Shaver, P. R., Hazan, C., & Bradshaw, D. (1988). Love as attachment: The integration of three behavioral systems. In R. J. Sternberg & M. Barnes (Eds.), *The psychology of love* (pp. 69–99). New Haven, CT: Yale University Press.

Shedler, J., Mayman, M., & Manis, M. (1993). The illusion of mental health. *American Psychologist, 48,* 1117–11131.

Shedler, J., Mayman, M., & Manis, M. (1994). More illusions. *American Psychologist, 49,* 974–976.

Silverman, D. K. (1991). Attachment patterns and Freudian theory: An integrative proposal. *Psychoanalytic Psychology, 8,* 169–193.

Simpson, J. A., Rholes, W. S., & Nelligan, J. S. (1992). Support seeking and support giving within couples in anxiety-provoking situation: The role of attachment styles. *Journal of Personality and Social Psychology, 60,* 434–446.

Slade, A., & Aber, L. J. (1992). Attachment, drives and development: Conflicts and convergences in theory. In J. Barron, M. Eagle, & D. Wolitsky (Eds.), *Interface of psychoanalysis and psychology* (pp. 154–185). Washington, DC: American Psychological Association.

Spitzer, R. L., Endicott, J., Fleiss, J. L., & Cohen, J. (1970). The psychiatric status schedule: A technique for evaluating psychopathology and impairment in role functioning. *Archives of General Psychiatry, 23,* 41–55.

Sroufe, L. A. (1983). Infant-caregiver attachment and patterns of attachment in pre-school: The roots of maladaptive competence. In M. Perlmutter (Ed.), *Minnesota symposium on child psychology* (Vol. 16, pp. 41–83). Hillsdale, NJ: Erlbaum.

Sroufe, L. A., & Waters, E. (1977). Attachment as an organizational construct. *Child Development, 48,* 1184–1199.

Stayner, D. A. (1994). *The relationship between clinical functioning and changes in self and object representations in the treatment of severely impaired inpatients.* Unpublished doctoral dissertation, Teachers College, Columbia University, New York.

Stern, D. N. (1985). *The interpersonal world of the infant: A view from psychoanalysis and developmental psychology.* New York: Basic Books.

Surrey, J. L. (1985). *Self-in-relation: A theory of women's development.* Unpublished manuscript, Stone Center, Wellesley College, Wellesley, MA.

Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin, 103,* 193–210.

Taylor, S. E., & Brown, J. D. (1994a). "Illusion" of mental health does not explain positive illusions. *American Psychologist, 49,* 972–973.

Taylor, S. E., & Brown, J. D. (1994b). Positive illusions and well-being revisited: Separating fact from fiction. *Psychological Bulletin, 116,* 21–27.

Urist, J. (1977). The Rorschach test and the assessment of object relations. *Journal of Personality Assessment, 41,* 3–9.

Virtue, C. (1992). The effects of maternal object representations and psychological differentiation on early mother-infant feeding interactions (Doctoral dissertation, Columbia University, 1990). *Dissertation Abstracts International, 52,* 3917.

Waddington, C. H. (1957). *The strategy of the genes.* London: Allen & Unwin.

Water, E., Merrick, S. K., Albersheim, W., & Treboux, D. (1995, March). *Attachment security from infancy to early adulthood: A 20-year longitudinal study.* Poster presented at the biennial meeting of the society for Research in Child Development, Indianapolis, IN.

West, M., Sheldon, A., & Reiffer, L. (1987). An approach to the delineation of adult attachment: Scale development and reliability. *Journal of Nervous and Mental Disease, 175,* 738–741.

Westen, D. (1991). Social cognition and object relations. *Psychological Bulletin, 109,* 429–455.

Westen, D., Lohr, N., Silk, K., Gold, L., & Kerber, K. (1990). Object relations and social cognition in borderlines, major depressives, and normals: A TAT analysis. *Psychological Assessment: A Journal of Consulting and Clinical Psychology, 2,* 355–364.

Winnicott, D. W. (1958). *Collected papers: From pediatrics to psycho-analysis.* New York: Basic Books.

Winnicott, D. W. (1965). *The maturational process and the facilitating environment: Studies in the theory of emotional development.* New York: International Universities Press.

Zeanah, C. H., & Anders, T. F. (1987). Subjectivity in parent-infant relationships: A discussion of internal working models. *Infant Mental Health Journal, 8,* 237–250.

Zelnick, L., & Buchholz, E. S. (1990). The concept of mental representations in light of recent infant research. *Psychoanalytic Psychology, 7,* 29–58.

Zuroff, D. C., & Fitzpatrick, D. (1991). *Romantic relationships of dependent and self-critical women.* Manuscript submitted for publication.

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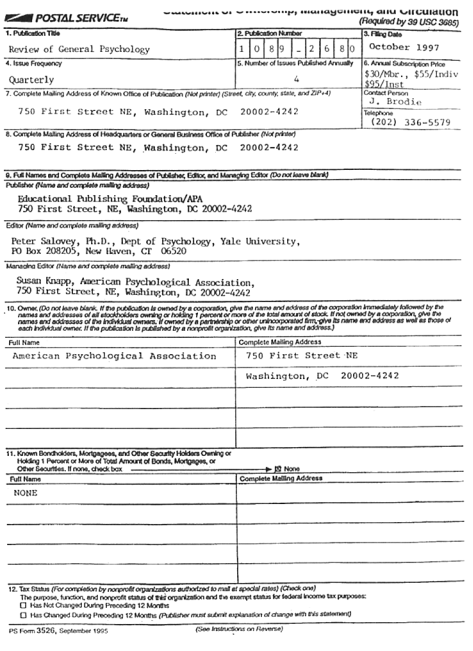

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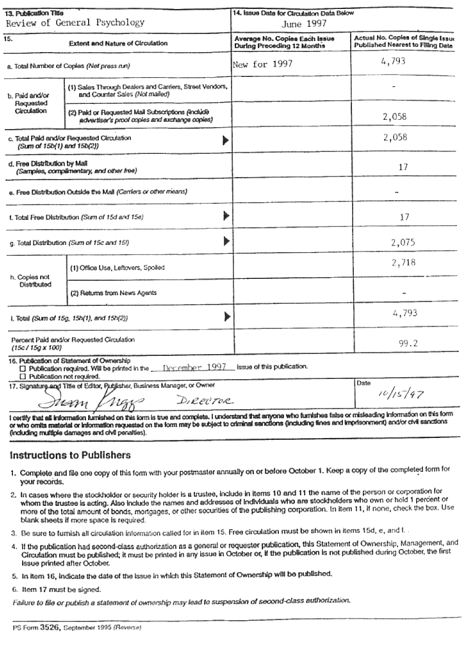

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17. Signature and Title of Editor, Publisher, Business Manager, or Owner: Steven Knapp Director. Date: 10/15/97

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