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Attachment style, representations of self and others, and affect regulation: Implications for the experience of depression

by

Kenneth N. Levy

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

1999

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ABSTRACT

Attachment style, representations of self and others, and affect regulation:

Implications for the experience of depression

by

Kenneth N. Levy

Advisor: Diana Diamond, Ph.D.

The capacity for affect regulation is essential for healthy adaptation, and impairments in the ability to regulate affect increases an individual's vulnerability to a variety of psychological difficulties. An increasing number of studies have documented that both impaired mental representations and insecure attachment are related to increased risk for problems in affect regulation such as depression. However, there is a dearth of empirical data linking mental representations and insecure attachment to affect regulation and depression. The present study examined the hypothesis that differences in adult attachment styles are associated with differences in the content and structure of mental representations and with qualitatively different ways of modulating affects.

One hundred twenty-eight undergraduates were classified into one of four attachment groups using the Relationship Questionnaire (Bartholomew & Horowitz, 1993). Mental representations were assessed using procedures developed by Blatt, Diamond, and their colleagues (Blatt et al., 1992; Diamond et al., 1995). Affect regulation was assessed using the Affect Regulation Scale (Levy, 1994), the Affect Regulation Questionnaire (Schaffer, 1992), and the Depressive Experiences Questionnaire

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(Blatt et al., 1979).

Correlational, multivariate analyses of variance, and regression analyses revealed significant relationships among attachment patterns, mental representations, affect regulation, and depression. Secure and fearful individuals evidenced significantly more complex, differentiated, and integrated representations of self and others. While there were no differences in the self-report of adaptive affect regulation strategies, preoccupied and dismissive subjects reported using significantly more maladaptive affect regulation strategies. Preoccupied individuals tended toward oral-somatic and self-injurious behaviors to regulate affect, whereas dismissing individuals were more likely to employ sex, drugs, and violent fantasy and behaviors to regulate negative internal states. In contrast, secure and fearful individuals' narrative descriptions of feeling states evidenced higher developmental levels of affective organization than preoccupied and dismissing subjects. Finally, secure attachment was negatively related to depression, fearful attachment was related to an interpersonally-based depression, while anxious-ambivalent attachment was related to a more anaclitic needy depression.

Findings are consistent with previous research and further contribute to our understanding by elaborating the relationship between adult attachment style, mental representations, and affect regulation. The developmental and clinical implications of these findings are discussed.

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Chapter I

Introduction

Background and Significance

The purpose of the present study is to investigate the hypothesis that differences in adult attachment styles reflect differences in mental representations, and that these differences are associated with qualitatively different ways of modulating affects. A basic postulate of both attachment theory (e.g., Ainsworth, 1969; Bowlby, 1980; Bretherton, 1985) and psychoanalytic theory (e.g., Blatt, 1974; Fairbairn, 1952; Kernberg, 1976; Winnicott, 1960) is that mental representations of self and others emerge from early, affect-laden relationships with caregivers and act as heuristic guides for subsequent relationships. Attachment theory and object relations theory both posit that the structure (e.g., coherence, differentiation, and integration), as well as the content of these cognitive-affective schemata (e.g., the belief that relationship partners are generally benevolent) influence expectations and feelings, as well as general patterns of behavior that characterize people" s interpersonal relationships (Diamond & Blatt, 1994; Slade & Aber, 1992). Mental representations not only organize experiences and guide interpersonal relationships, but modulate affect as well (Kernberg, 1993; Krystal, 1977). Impairment and distortions in mental representations play a fundamental role in the development of psychopathology (Blatt & Wild, 1976; Blatt, Wild, & Ritzler, 1975).

The present study focuses on the relationship between the content and structure of representations of self and significant others to attachment styles, and their effects on affect regulation and the development of depression -- an example of failed affect

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regulation. The findings from this study should have implications for understanding basic psychological processes, as well as for the prevention and treatment of psychological disorders. Studying attachment, representation, and affect regulation, is important not only in terms of making a theoretical contribution to an area of social science. Rather, it may also have pragmatic implications for understanding and treating some of society's pressing problems, including social/clinical maladies such as child abuse, domestic violence, drug abuse, delinquency, and teen pregnancy. Researching basic psychological constructs and processes, such as mental representations, attachment, and affect regulation can be particularly useful for practicing therapists who, upon encountering clinical difficulties, may be able to use the relevant dynamics and determinants imparted by such research to guide their work (Wolfe & Goldfried, 1996).

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Chapter II

Review of the Literature

Attachment theory

Attachment theory emerged from John Bowlby's observations of the pervasive disruptive consequences of maternal deprivation in children temporarily separated from their primary caregiver (usually mother) during World War II and was further elaborated in his classic study of forty-four delinquent children (Bowlby, 1944). His observations suggested that: "the young child's hunger for his mother's love and presence is as great as his hunger for food," and that her absence inevitably generates "a powerful sense of loss and anger" (Bowlby, 1969, p. xiii).

Through these observations Bowlby identified a clear and predictable sequence of three emotional reactions that typically occur subsequent to the separation of an infant from its primary caregiver: first protest, which involves crying, active searching, and resistance to others soothing efforts; then despair, which involves a state of passivity and obvious sadness; and then detachment, which involves an active, seemingly defensive disregard for and avoidance of the mother upon her return. Successive, systematic observation revealed that the typical infant checks back regularly, visually and/or physically, to ensure the mother is available and responsive. If mother moves or directs her attention elsewhere, the child attempts to recapture that attention through eye contact, smiling, vocalizing (babbling, crying) or returning to her side (including clinging and following). When the attachment system is activated strongly, most children cry and seek physical contact with their primary caregiver. When the system is idle, they play happily,

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smile easily, share toys and discoveries with their caregiver, and display warm interest in others. The system is especially prone to activation under conditions of anxiety, fear, illness, and fatigue.

Based on ethological theory, Bowlby postulated that the caregiver-infant attachment bond is a complex, instinctually guided behavioral system that has functioned throughout human evolution to protect the infant from danger and predators. Secure attachment in infancy is based on the mother's reliable and sensitive provision of security and love, as well as food and warmth. There are consistent differences, however, in the degree to which infant-mother relationships are characterized by the experience of security. Some mothers are slow or erratic in responding to their infant's cries or regularly intrude into or interfere with their infant's desired activities (sometimes to force "affection" on the infant at a particular moment). These mothers often produce infants who cry more often and explore less (even in mother's presence) than securely attached infants, and they mingle attachment behavior with overt expressions of anger and in many instances seem generally anxious. In addition, some infants may eventually try to avoid mothers who frequently rebuff or reject their infant's attempts to establish physical contact with her. These distinctions have led investigators (e.g., Ainsworth) to contrast secure attachment with types of insecure attachment -- avoidant and anxious ambivalent.

Bowlby proposed that through repeated transactions with their attachment figures, infants form mental representations or affective-cognitive schemata of the self and others and develop expectations about interpersonal relations, which he called "internal working models." These "internal working mental models" (Ainsworth, 1969; Bowlby,1973), or

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mental representations, organize personality development and subsequently direct and shape future relationships. The continuity of these mental models over time is rooted in the complementary nature of working models of self, other, and concomitant expectations regarding one's role in interpersonal relationships. For example, an infant whose needs are typically left unmet may develop a model of others as unreliable and uncaring. Consequently, the neglected infant and child may, as an adult, believe each new person will prove to be inaccessible, uncaring, and unresponsive. Conversely, the child whose needs have been addressed in a consistent loving and supportive manner may subsequently regard others as dependable and trustworthy.

Based on Bowlby's attachment theory, Mary Ainsworth conducted a seminal study to observe the effects of child rearing techniques employed by mothers and the development of attachment patterns. Ainsworth and her colleagues (Ainsworth, Blehar, Waters, & Wall, 1978) developed a measurement technique called the Strange Situation. The Strange Situation involves eight standard episodes staged in a playroom during which the infant, the caregiver, and a "stranger" interact in a comfortable setting and the behaviors of the infant are observed. First, the baby has the chance to explore toys while the mother is present. Then a stranger enters, converses with the mother, and invites the baby to play. Next, the mother leaves the baby with the stranger for a few minutes, and then reenters the room to reunite with the baby. The last series of episodes involves the mother leaving the baby a second time, this time all alone, followed by stranger's return, and finally the mother's return for a second reunion. Ainsworth was able to categorize infants into three distinct groups based on their reunion behavior with their mothers after

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this brief separation. Based on observations of infants and caretakers, Ainsworth et al. (1978) identified three distinct patterns or styles of infant-mother attachment: secure (63% of the dyads tested), avoidant (21%), and anxious-ambivalent (16%). All three types of infants are attached to their mothers, yet there are significant individual differences in the quality of these attachment relationships and these differences can be reliably measured. The avoidant dyad is characterized by quiet distance in the mother's presence, often acting unaware of the mother's departure, and avoiding the mother upon reunion. The anxious-ambivalent dyad is characterized by much emotional protest and anger on the part of the infant, who becomes extremely distressed upon the mothers' departure, and often continues crying long after his or her mother's return. These reunions are also characterized by the infant's seeking attention, yet being unable to experience the mother's ministrations as soothing and comforting. The secure dyad is characterized by the confident use of the mother as a "secure base" to explore the playroom with considerable ease and comfort in the mother's presence. Secure infants display less exploration and may experience distress upon the mother's departure; however, upon the mother's return, secure babies greet the mother with enthusiasm, accept comfort readily, seek proximity and interaction with the mother, and then resume their exploration of the environment. The Ainsworth et al. (1978) study has been replicated and extended by many subsequent investigators (e.g., Dontas, Maratos, Fafoutis, & Karangelis, 1985; Erickson, Sroufe, & Egeland, 1985; Main, Kaplan, & Cassidy, 1985; Sroufe, 1983, 1985; Sroufe & Fleeson, 1986; Waters, Wippman, & Sroufe, 1979) and replicated with samples of children from other nations (Grossmann,

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Grossmann, Spangler, Suess, & Unzner, 1985; Miyake, Chen, & Campos, 1985; Sagi, Lamb, Shoham, Dvir, & Lewkowicz,1985; see reviews by Bretherton, 1985; Paterson & Moran, 1988 and Ijzendoorn, 1995).

Additionally, consistent with Bowlby's theory, attachment styles are closely associated with differences in caretaker warmth and responsiveness (Ainsworth et. al., 1971; 1974; 1978; Belsky, Rovine, & Taylor, 1984; Blehar, Lieberman, & Ainsworth, 1977; Egeland & Farber, 1984; Main et al., 1985; Bates, Maslin, & Frankel, 1985; Goldberg Perrutton, & Minde, 1986; Grossmann, Grossmann, Spangler, Suss, & Unznor, 1985; Pederson, Moran, Sitko, Campbell, Ghesquire, & Acton, 1990; Smith & Pederson, 1988; Crowell, & Feldman, 1988; Isabella, 1994; Isabella & Belsky, 1991; see Main, 1995 for a review). Ainsworth and colleagues (1971, 1974), and Grossmann et al., (1985) in a German sample, found that maternal sensitivity during infancy strongly predicted the security of infants' attachments to their mothers. For example, Ainsworth et al. (1978) observed child-mother interactions longitudinally at home and found that children's behaviors in the "strange situation" were related to mothers' general responsiveness. Mothers of children who displayed secure behaviors in the lab setting were found to be most responsive to infant signals at home. Mothers of anxious-ambivalent children were found to respond to their children inconsistently, belatedly, or inappropriately, so that the children could never be certain of their mother's availability. Mothers of avoidant children disliked physical contact with their babies and were selectively unresponsive to their infants' distress signals. Ainsworth et al. (1978) drew the conclusion that a child's expectations about mother's responsiveness were influenced not only by actual physical

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separation from the mother, but also by the child's everyday relationship with her. Other studies have also provided strong support for the link between maternal sensitivity and attachment security. For example, mothers of securely attached, in contrast to mothers of insecurely attached infants, tend to hold their babies more carefully, tenderly, and for longer periods of time during early infancy (Main et al., 1985). Additionally, mothers of securely attached infants respond more frequently to crying, show more affection when holding the baby, are more likely to acknowledge the baby with a smile or conversation when entering the baby's room compared to mothers of babies who are later independently deemed insecurely attached. These findings are consistent with Crowell and Feldman's (1988) study of maternal sensitivity and Smith and Pederson (1988) who found that maternal sensitivity to infant communication predicted attachment style.

A number of longitudinal studies have investigated the influence of 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). Secure six-year-olds are relaxed, 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), and later tend to distance themselves from their parents and ignore parents' initiatives in conversation (Main & Cassidy, 1988). Anxious-resistant or preoccupied insecure infants are tense and impulsive as toddlers, passive and helpless in preschool (Sroufe, 1983), and later show a mixture of insecurity and hostile behavior in interaction with their parents (Main & Cassidy, 1988). Two longitudinal studies (Elicker,

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Englund, & Sroufe, 1992; Grossmann & Grossmann, 1991) have followed children for as long as 10 years after their assessment in the Strange Situation and found predictable personality and social behaviors over that decade. Sroufe and colleagues (Elicker et al., 1992) report that infant attachment style, even when controlling for adjustment and home environment, reliably predicted social skill and self-confidence in children ten years later. Specifically, secure attachment in infancy predicted more positive relationships with teachers and closer, more socially adept friendships with peers at age 11. A more recent study (Waters, Merrick, Albersheim, & Treboux, 1995) that followed 50 individuals for 20 years, 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, the available evidence indicates that attachment classifications are fairly stable over extended periods of time, although the relative importance of various contributors to stability and change (e.g., 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. Most likely, all of these factors plays significant roles. (See Rothbard & Shaver, 1994, for a review of research on continuity.)

Adult Attachment. Based on Bowlby's (1977) contention that the attachment system is active "from the cradle to the grave," various investigators working in the mid-1980's (e.g., Hazan & Shaver, 1987; Kobak & Screery, 1988; Main et al., 1985; West & Sheldon, 1987; Sperling & Berman, 1991) independently began to apply the tenets of

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attachment theory to the study of adult behavior and personality.

Mary Main and her colleagues (Main et al., 1985; George, Kaplan, & Main, 1985) developed the Adult Attachment Interview (AAI), a one-hour attachment-history interview, noting that discourse features in interviews with parents of infants reliably predicted the Strange Situation behavior of their children. The interview inquires into "descriptions of early relationships and attachment related events for the adult's sense of the way these relationships and events had affected adult personality," by probing for both specific corroborative and contradictory memories of parents and the relationship with parents (Main et al., 1985, p. 98). Three major patterns of adult attachment have been identified: secure, detached and enmeshed; and more recently, two additional styles have recently been identified, the disorganized style and the cannot classify style. The first three categories parallel the attachment classifications originally identified in childhood (Ainsworth et al., 1978), and the disorganized classification parallels a pattern Main later described in infants (Main & Weston, 1981). Security on the AAI is characterized by seemingly honest and open portrayals of both childhood and current relationships with parents, by a well-organized, undefended discourse style in which emotions are freely expressed, and by a high degree of coherence exhibited in the discussion of attachment relationships regardless of how positively or negatively these experiences are portrayed. Providing a clear, detailed, consistent, and coherent account, secure individuals readily describe diverse childhood experiences and relationships with each parent, regardless of whether the relationships is described as positive, negative, or mixed over time. They maintain a balanced and realistic-seeming view of early relationships, value attachment

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relationships, and view attachment-related experiences as influential to their development. In contrast, dismissing individuals devalue the importance of attachment relationships or portray them in an idealized fashion with few corroborating concrete examples. They have difficulty recalling specific events, and usually describe an early history of rejection. These individuals are judged to have low "coherence of mind" because of the vagueness and the sparseness of their descriptions, as well as, the inconsistency between the vaguely positive generalizations and "leaked" evidence to the contrary. Preoccupied individuals have little difficulty talking about attachment and expressing attachment-related feelings. However, these individuals tend to display confusion about past experiences, and are unable to gain insight into early events. They describe early relationships with parents as over involved or as guilt-inducing. Descriptions of their current relationship with parents are often characterized by pervasive anger, passivity, and attempts to please parents, even when they describe the relationship as positive. Perhaps most importantly, preoccupied individuals have a tendency towards incoherence in their descriptions. Specifically, their interviews are often excessively long, and are characterized by the use of long, grammatically entangled sentences, jargon and nonsense words, reversion to childlike speech, and confusion regarding past and present relationships.

In their initial study, Main and co-workers (Main, et al., 1985) found that AAI classifications, based on reports of interactions with their own parents could predict their children's Strange Situation classifications with about 80 percent accuracy. This is not surprising, of course, given that the classification system was developed by noting which features of parents' AAI's reliably predicted the Strange Situation behavior of their

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children. However, this finding regarding the continuity between parent attachment style and child attachment style has now been replicated several times (van IJzendoorn, 1995).

In contrast to Main's focus on relationships with parents, Hazan and Shaver (Hazan & Shaver, 1987; Shaver, Hazan, & Bradshaw, 1988), from a social psychological perspective, have applied the childhood attachment paradigm to study attachment in adulthood by conceptualizing romantic love as an attachment process. Hazan and Shaver have developed questionnaires to assess these attachment styles. This work is important because it translates the childhood paradigm into terms directly relevant for adult relationships. Hazan & Shaver (1987) reasoned that Ainsworth's three attachment types might exist in adolescence and adulthood and have important implications for romantic relationships (Shaver & Hazan, 1987; Shaver, Hazan, & Bradshaw, 1988). They translated Ainsworth's descriptions of the three infant attachment types into a single-item measure appropriate for adult romantic attachment. Following Ainsworth et al. (1978), they labeled the three types 'secure', 'avoidant', and 'anxious- ambivalent'. Subjects were first asked to characterize themselves as secure, avoidant, or anxious-ambivalent in romantic relationships; then they were asked to respond to questions related to their 'most important' experience of romantic love, their mental models of self and relationships, their memories of childhood relationships with parents (attachment history), and their experiences at work. Hazan and Shaver obtained roughly the same proportions of the three attachment types (secure-62%, avoidant-23%,and anxious ambivalent-15%) that Ainsworth et al. (1978) obtained in studies of infants. Similar percentages have been obtained in subsequent studies using Hazan and Shaver's measure in at least five different

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industrialized countries (USA--Collins & Read, 1990; Australia--Feeney & Noller, 1990; China--Man & Hamid, 1998; Spain--Moreira, Bernardes, Andrez, Aguiar, Moleriro, & Silva, 1998; Israel--Mikulincer, Florian, & Tolmacz, 1990). And also similar to the child literature on attachment, there were no gender differences in subjects endorsements of the three types of descriptions -- although, the avoidant style appears stereotypically masculine and the anxious-ambivalent style stereotypically feminine.

Shaver and colleagues (Hazan & Shaver, 1987; 1990; Brennan, Shaver, & Tobey, 1991; Shaver & Brennan, 1992) further demonstrated that the three attachment styles are related to a wide variety of close relationship processes and outcomes. In their initial study Hazan and Shaver (1987) found a relationship between self-reported romantic attachment style and working models of relationships. Secure subjects' experiences of love were characterized by caring, intimacy, supportiveness, and understanding; avoidant subjects were characterized by fear of intimacy; and anxious ambivalent subjects were characterized by emotional instability, obsession, physical attraction, and the desire for union. Additionally, they found greater loneliness among insecure subjects. In a second study, Hazan and Shaver (1990) reported that secure subjects in contrast to both groups of insecure subjects, scored lower on measures of depression and anxiety. Secure subjects report being less depressed, anxious, hostile and sick than insecure subjects. Hazan and Shaver also assessed feelings related to work and leisure (e.g., feeling unappreciated by coworkers, using work to avoid social contacts), with work being conceptualized in terms of Bowlby and Ainsworth's 'exploration behavioral system'. Avoidant subjects regarded success in work as more important than success in relationships. Additionally, avoidant

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subjects tended to be satisfied with work, but not with their co-workers, and instead preferred to work alone. Anxious ambivalent subjects, in contrast, preferred to work with others; however, they did not enjoy the actual work, but rather the people they worked with. Interestingly, both secure and avoidant subjects reported making more money than anxious-ambivalent subjects, even when controlling for gender.

Several other researchers have altered and extended the original Hazan and Shaver measure (Collins & Read, 1990; Davis, Levy, & O'Hearn, 1991; Feeney & Noller, 1990; Levy & Davis, 1988; Mikulincer, Florian, & Tolmacz, 1990; Simpson, 1990; Simpson, Rholes, & Nelligan, 1992). Levy and Davis (1988) asked subjects to rate how well each of the Hazan and Shaver (1987) attachment vignettes described them. These ratings of secure and avoidant styles were strongly inversely correlated and essentially orthogonal to ratings of the anxious-ambivalent scale. In subsequent studies, Simpson (1990) and Collins and Read (1990) broke out the sentences in Hazan and Shaver's attachment vignettes into separate items. In factor analyses of these multi-item measures, Collins and Read (1990) found a three-factor solution (desire for closeness, comfort with dependency, and anxiety about abandonment), and Simpson found a two-factor solution (desire for closeness and anxiety about abandonment). Collins and Read called their three dimensions close, depend, and anxiety about abandonment. Simpson and colleagues called their two dimensions security vs. avoidance and anxiety about abandonment.

A number of empirical studies, using Hazan and Shaver's (1987) or derivative measures of adult attachment, have found that the distribution of adult attachment styles is similar to those found for infants, such that approximately 55% of individuals are classified

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as secure, 25% as avoidant, and 20% as anxious (see reviews by Shaver & Clark, 1994, and Shaver & Hazan, 1993). Scores of cross-sectional studies have shown that these adult attachment styles are related to a broad array of social-psychological variables, including relationship functioning (Brennan & Shaver, 1995), personality (Collins & Read, 1990; Shaver & Brennan, 1992), depression (Carnelley, Pietromonaco, & Jaffe, 1994), social support (Simpson, 1990; Simpson, Rholes, & Nelligan, 1992), religiosity (Kirkpatrick & Shaver, 1990), substance use (Brennan & Shaver, 1995; Senchak & Leonard, 1992), and domestic violence (Dutton, Saunders, Starzomski, & Bartholomew, 1994). Empirical research on adult romantic attachment has validated these distinctions and documented an extensive set of attachment style covariates in the domains of personality (Shaver & Brennan, 1992), close relationships (Collins & Read, 1990; Hazan & Shaver, 1987; Kirkpatrick & Davis, 1994; Simpson, Rholes, & Nelligan, 1992), and emotion regulation (Mikulincer, Florian, & Weller, 1993; Mikulincer & Orbach, 1995).

In an important development, Bartholomew (1990; Bartholomew & Horowitz, 1991) noticed an incongruity between Main's and Hazan and Shaver's conceptions of avoidance. Bartholomew's key insight was that Main's prototype of the adult avoidant style (assessed in the context of parenting) is more defensive, denial-oriented, and overtly unemotional than Hazan and Shaver's avoidant romantic attachment prototype, which seems more vulnerable, conscious of emotional pain, and "fearful." Thus, Main's avoidant style is predominately dismissing, whereas Hazan and Shaver's avoidant style is predominately fearful. Bartholomew contended that adult attachment, like infant attachment as conceptualized by Crittenden (1988) or Main and Solomon (1990), can best

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be characterized by four rather than three major categories, with two adult patterns of avoidance. Bartholomew developed a four-category interview and self-report measures that includes both kinds of avoidant styles – dismissing and fearful.

Consistent with Bowlby, Bartholomew conceptualized adult attachment styles in terms of the combinations of representational models of self and others that purportedly underlie them (See Figure 1). With this revision of the Hazan and Shaver classification scheme, it became evident to Bartholomew that the four categories could be arrayed in a two-dimensional space, with one dimension being "model of self" (positive vs. negative) and the other being "model of others" (positive vs. negative). 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.

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Figure 1.

Bartholomew's analysis of four adult attachment styles in terms of two dimensions, Model of Self and Model of Other.

Model of Other \ Model of Self	Positive	Negative
Positive	**SECURE** Comfortable with intimacy and autonomy	**PREOCCUPIED** Preoccupied with relationships
Negative	**DISMISSING** Dismissing of Intimacy; Counter-dependent	**FEARFUL** Fearful of intimacy; Socially Avoidant

Consistent with her supposition, a number of studies have found that the personality styles of the two avoidant types are quite distinct. The fearful avoidants are characterized as low in self-esteem, hesitant, shy, lonely, vulnerable, dependant, self-critical, afraid of rejection, and lacking in social-confidence. One the other hand, the dismissing avoidants are characterized as high in self-esteem, socially self-confident, unemotional, defensive, independent, cynical, critical of others, distant from others, and

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more achievement-oriented than relationship-oriented. Brennan, Shaver, and Tobey (1991) also found important individual differences between fearful and dismissing subjects, including gender differences, indicating that the Hazan and Shaver avoidant category may be overly broad and mask important differences between the two different types of avoidant attachment.

Levy, Blatt, & Shaver (1998) studied the relationship between young adults' attachment styles and the content and structure of their parental representations. They administered Hazan and Shaver's (1987, 1990) single-item self-categorization and rating-scale measures of attachment style to one hundred ninety-six undergraduates (106 men, 90 women). Fifty-four subjects also completed Bartholomew's four-category measure of adult attachment style (Bartholomew & Horowitz, 1991). Subjects also were asked, in open-ended questions, to write a description of each parent. These descriptions were reliably rated for qualitative and structural dimensions using a scoring system developed by Blatt, Chevron, Quinlan, Schaffer, and Wein (1988). Levy and his colleagues found that securely attached subjects' parental representations were characterized by differentiation, elaboration, benevolence, and non-punitiveness. Dismissing subjects' representations were characterized by less differentiation and greater indications of punitiveness and malevolence. Fearful subjects, demonstrating somewhat greater ambivalence, also described their parents as relatively punitive and malevolent, but their representations were well-differentiated and conceptually complex.

That fearful avoidant subjects represented their parents as relatively malevolent, yet did so with high levels of differentiation and integration and at a conceptual level

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similar to secure subjects is especially noteworthy. For previous research has portrayed them as the "opposite" of secures on many dimensions, causing them to be viewed as the least secure of the three insecure groups (e.g., Shaver & Hazan, 1993). Fearful avoidants had often been viewed as the most distressed and least healthy (i.e., the least trusting, the least assertive, and so on.) Nevertheless, although fearful avoidant subjects are ambivalent about their parents, they, like secure subjects, conceptualize their parents in complex ways, integrating good and bad aspects of their parents, and differentiating themselves from their parents. This is consistent with Bartholomew's (1989) finding that although fearful subjects, like dismissing subjects, report parental rejection (low parental acceptance and involvement), they are no more likely to idealize their parents or be incoherent during an attachment interview than secure subjects. Evidently, fearful subjects may have had a difficult time with their parents, yet have been able to achieve structurally sophisticated parental representations.

This finding is particularly important in light of recent AAI studies of secure attachment (e.g., Pearson, Cohn, Cowen, & Cowen, 1994), which distinguish between two kinds of secure attachment based on the AAI: continuously secure and earned secure. Continuously secure subjects coherently describe warm and benevolent early relationships with parents, whereas earned secures describe difficult early relationships with parents, but also do this in a highly coherent way. Pearson et al. classified 40 parents of preschool children as either earned secure or continuously secure and then compared them with each other and with insecure parents on a measure of depression and two sets of observational ratings of parenting behavior. Supporting the validity of the continuous/earned

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distinction, Pearson et al. found that earned secures were similar to insecures on the measure of depression but were similar to continuous secures with regard to good parenting behavior.

The similarities between Pearson et al.'s earned secures and our fearful avoidants are notable: Both groups report difficult childhoods but have formed coherent representations of their parents. One might think that many of the fearful avoidants are "actually" secure in some sense, especially in light of the fact that the typical AAI study finds proportions of secure adults in the vicinity of 65%, whereas the typical study based on Bartholomew's self-report measure finds proportions closer to 45%. Additionally, studies using Bartholomew's measure typically find that approximately 20% are fearfully avoidant. Adding together the typical proportions for Bartholomew's secure and fearful subjects would yield the expected proportions of secures typically found with the AAI. However, the 65% figure was more or less imposed on the AAI, because it was designed to predict the Strange Situation classification of an interviewee's child, and studies of American middle class children typically find about 65% of them to be securely attached. In contrast, Bartholomew's measure was derived by elaborating the Hazan/Shaver measure so that it distinguished two kinds of avoidant attachment styles instead of one. There was no criterion such as children's performance in the Strange Situation, only construct validity in the realms of personality and adult relationships. (The people identified as fearful avoidants using Bartholomew's questionnaire, or similar self-report measures, are behaviorally avoidant in adult relationships: Bartholomew & Horowitz, 1991; Mikulincer & Nachshon, 1992; Simpson et al., 1992.)

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Levy, et al.'s (1998) findings, plus the line of reasoning just summarized, suggest that fearful avoidants subjects can be security-enhancing parents despite their tendencies toward avoidant attachment in romantic and marital relationships. Moreover, Fonagy and colleagues (Fonagy, 1994; Fonagy, Steele, Steele, Leigh, Kennedy, Mattoon, & Target, 1995; Fonagy, Leigh, Steele, Steele, Kennedy, Mattoon, Target, & Gerber, 1996) recently reported that, among insecurely attached mothers (defined in terms of the AAI), a measure of reflective function (awareness of mental processes in the self and in others, and the ability to take account of one's own and others' mental states in understanding why people behave in specific ways) predicted whether or not a mother's infant would be securely attached, as measured in the Strange Situation. Fonagy believes that reflective function plays an important role in parenting, and his concept of reflective function seems similar to Blatt's concepts of conceptual level and differentiation-relatedness. Levy et al.'s (1998) findings support Bartholomew's (1990) distinction between two kinds of avoidant attachment, fearful and dismissing. Not only do these individuals' models of self differ in positivity, as noted by Bartholomew (1990), they also differ in the structure of their parental representations. This difference may turn out to be at least as important as the purported differences in self-esteem and appears also related to affect regulatory strategies.

Assessment of Adult Attachment. Although the AAI category system, Hazan and Shaver's three-category typology, Bartholomew's four-category typology, and several variations of these conceptual frameworks are all rooted in Bowlby and Ainsworth's theory and research, they are not conceptually identical (e.g., some are more clearly

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dimensional than others, and some focus on parenting whereas others focus on romantic relationships), and they have generated different kinds of measures. The AAI is scored primarily by noting indicators related to "current state of mind," such as awkward pauses, gaps in memory, incoherent discourse, and other signs of defensiveness. The self-report measures, such as Bartholomew's and Hazan and Shaver's, tap self-characterizations of beliefs, feelings, and behaviors in romantic or other close relationships. Comparisons between the AAI and self-report measures have typically failed to correspond with each other (Borman & Cole, 1993; Crowell, Treboux, & Waters, 1999; Holtzworth-Monroe, Stuart, & Hutchinson, 1997; Shaver, Belsky, & Brennan, in press; see Bartholomew & Shaver, 1998 for an exception). Typically the comparisons have involved cross-tabulations of AAI categories and Hazan/Shaver categories. However, studies that have related the dimensional coding scales from the AAI to the self-report measures, have found that they are significantly related, even if the two categorical typologies were not significantly related (Shaver, Belsky, & Brennan, in press). Nonetheless, these studies have (1) lacked sufficient power to detect associations, (2) have considered the dismissing category in the AAI system and the Avoidant category in Hazan and Shaver's measure as identical, even though Bartholomew (e.g., 1990; Bartholomew & Horowitz, 1991) have shown that there are two kinds of adult avoidance, dismissing and fearful (the Hazan and Shaver measure tapping mainly the latter) or have considered the unresolved category in the AAI and the fearful category in the Bartholomew measure as identical; (3) investigated selected samples (e.g., psychiatric patients, men in domestic violence programs); and (4) in one study (Crowell, Treboux, & Waters, 1999) introduced a threat to internal validity by

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informing participants as to the purpose of the study.

Others have mistakenly claimed that the Hazan and Shaver measure does not have clear construct validity (Rothstein, 1997). While it is true that there was no criterion such as children's performance in the Strange Situation used in the development of the Hazan and Shaver or Bartholomew measures, there is considerable construct validity in the realms of personality and adult relationships for these measures. In sum, since 1987 a host of studies using Hazan and Shaver's brief measure and various extensions of it have been sufficiently precise (see Scharfe & Bartholomew, 1994) to generate a large and coherent body of evidence supporting its construct validity. Adult attachment styles have significantly predicted relationship outcomes (e.g., satisfaction, breakups, commitment), patterns of coping with stress, couple communication, and even phenomena such as religious experiences and patterns of career development as well as now numerous studies that use non-self-report outcomes and make behavioral predictions, including behavior (in and outside of the lab), psychophysiological responses, and cognitive dynamics (Baldwin, Fehr, Keedian, & Seidel, 1993; Bartholomew & Horowitz, 1991; Fraley, Davis, & Shaver, 1998; Feeney & Kirpatrick, 1996; Hazan & Hutt, 1991; Mikulincer & Nachshon, 1991; Rholes, Simpson, & Blakely,1995; Simpson, Rholes, & Nelligan, 1992). Moreover, Rholes, Simpson, and Blakely (1995) used self-report measures to assess attachment in a study of the quality of mother-child relationships. Similar to studies relating the AAI derived attachment styles to outcomes in the child strange situation, they found that avoidant mothers did not feel as close to their preschool children as did more secure mothers, and they behaved in less supportive ways toward their children during a

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laboratory teaching task. Still there are no studies relating the self-report measures to children's attachment patterns derived from the Strange Situation.

From the beginning, Bartholomew included both interviews and self-report measures in her studies, and her interviews covered both relationships with parents (in line with the AAI) and relationships with close friends and romantic partners (in line with Shaver and Hazan's work). Additionally, the convergence of interview ratings and subjects self-ratings has found similar patterns (Bartholomew & Horowitz, 1991). Moreover, Bartholomew's self-report and interview measures were both significantly related to peer reports provided by subjects' friends, suggesting the usefulness of this self-report measure.

In contrast to earlier findings, Bartholomew & Shaver (1998) report the comparison of 30 bereaved women who had AAI and Bartholomew scoring systems coded by well-trained and independent sets of AAI and Bartholomew coders. Using chi-square analysis, the two systems were significantly related (χ^2 (6) = 24.80, $p < .001$). When the seven interviewees who were classified as fearful using the Bartholomew system were omitted, the association was again significant (χ^2 (4) = 23.93, $p < .0001$), and the proportion of agreement was .78. All five disagreements involved the secure category, the AAI coders more readily labeled people secure. These differences were consistent with each systems base rates for the secure-category.

Bartholomew and Shaver (1998) contend that recent examination of several studies based on Bartholomew's measures and either the AAI or Hazan and Shaver's measure, suggests a rough continuum ranging from the AAI (an interview measure

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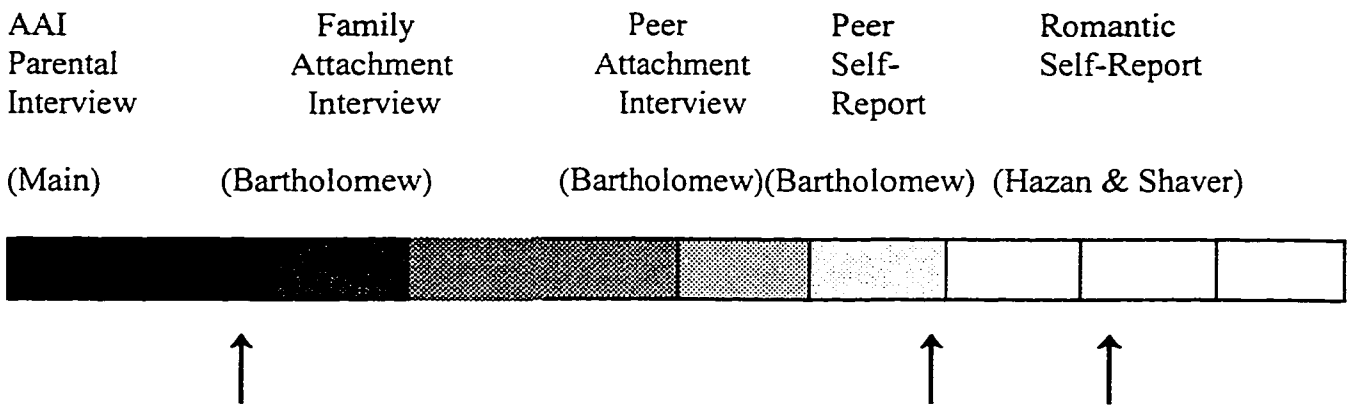
focused on parenting issues and coded categorically rather dimensionally), through Bartholomew's parental attachment and peer/romantic interviews and her self-report measure, to Shaver and Hazan's self-report measure.

Figure 2.

Hypothetical continuum of adult attachment measures.



Methods that lie close to each other on this continuum are more highly related empirically (see Figure 2 above), but factor analyses or structural equation models based on several measures consistently indicate the presence of an underlying latent construct (see Griffin & Bartholomew, 1994a, 1994b), which Bartholomew and Shaver (1998) interpret as reflecting a common core that is established in childhood. These attachment orientations may become differentiated with development and social experience. Taken together,

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however, findings using self-report measures are highly consistent with those using the interview method, even if the two categorical typologies are not significantly related (Bartholomew & Shaver, 1998; Crowell, Fraley, & Shaver, 1999). Moreover, the research of Collins and Read (1990), Simpson and colleagues (Simpson et al., 1992), and Bartholomew (Bartholomew & Horowitz, 1991) indicate that assessed attachment variables can be aligned along regions of two-dimensional space of Anxiety and Avoidance (see Fraley & Waller, 1998). These two dimensions fit with Hazan and Shaver's (1987; 1990) original ideas and with Kobak's Q-sort scoring system for the AAI (Kobak, Cole, Ferenz-Gillies, & Fleming, 1993; see Shaver & Hazan, 1993), are conceptually similar to those assessed in infant-mother research using the Strange Situation (see Figure 10 of Ainsworth et al., 1978), are consistent with Bowlby's theorizing regarding working models of self and others, and have been linked to a number of theoretically-relevant variables and outcomes in recent research.

Further Evidence for Two Dimensions of Attachment

Figure 3 below, reproduces the essential features of the Ainsworth et al. (1978) figure 10 (p. 102), which summarizes the results of a discriminant function analysis predicting infant attachment type (secure, anxious, or avoidant) from the continuous rating scales used by coders to characterize the infants' behavior in the Strange Situation.

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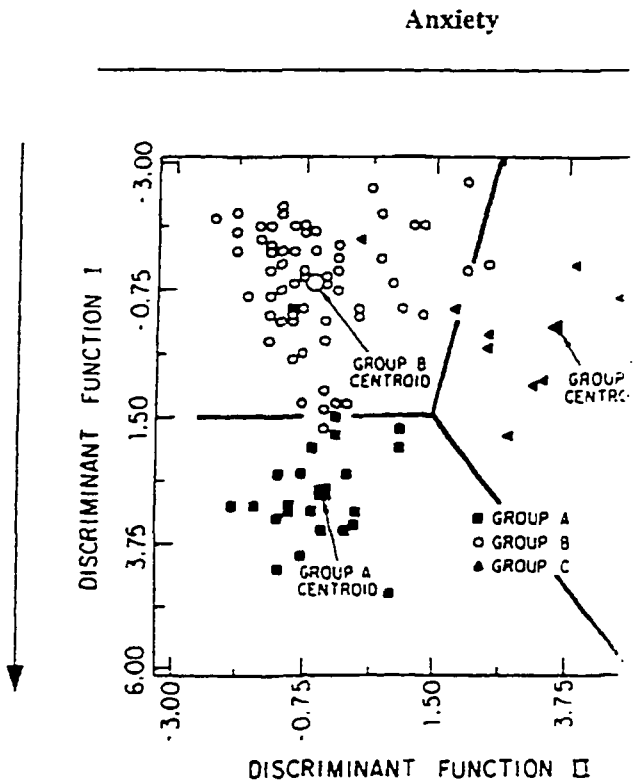

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The coding scales that correlated most highly with the avoidance dimension (Function 1) were: (1) avoiding mother during episodes 5 and 8 of the Strange Situation (the two reunion episodes); (2) not maintaining contact with the mother during episodes 8; (3) not seeking proximity during episode 8; and (4) engaging in more exploratory behavior and more distance interaction (communication with a stranger while mother was absent) in episode 7 of the Strange Situation. All these scales indicate avoidance of mother, lack of closeness to mother, and less distress during mother's absence (in the presence of an adult stranger). The coding scales that correlated most highly with the anxiety dimension (Function 2) were: (1) crying (all through episodes 2-8, but especially episode 6, when the infant was left alone for 3 minutes; (2) greater angry resistance to mother during episodes 5 and 8 (reunions); (3) greater angry resistance to the stranger during episodes 3, 4, and 7 (when the stranger tried to comfort or play with the infant), and (4) reduced exploration in episode 7, when the solitary infant was jointed by a stranger.

These findings indicate that, consistent with current findings using self-report and Q-sort methodology, Ainsworth's three major attachment types could be conceptualized as regions within two-dimensional space, the dimensions being avoidance (discomfort with closeness and dependency) and anxiety (crying, failing to explore confidently in the absence of mother, and angry protest directed at mother during reunions after what was probably experienced as abandonment).

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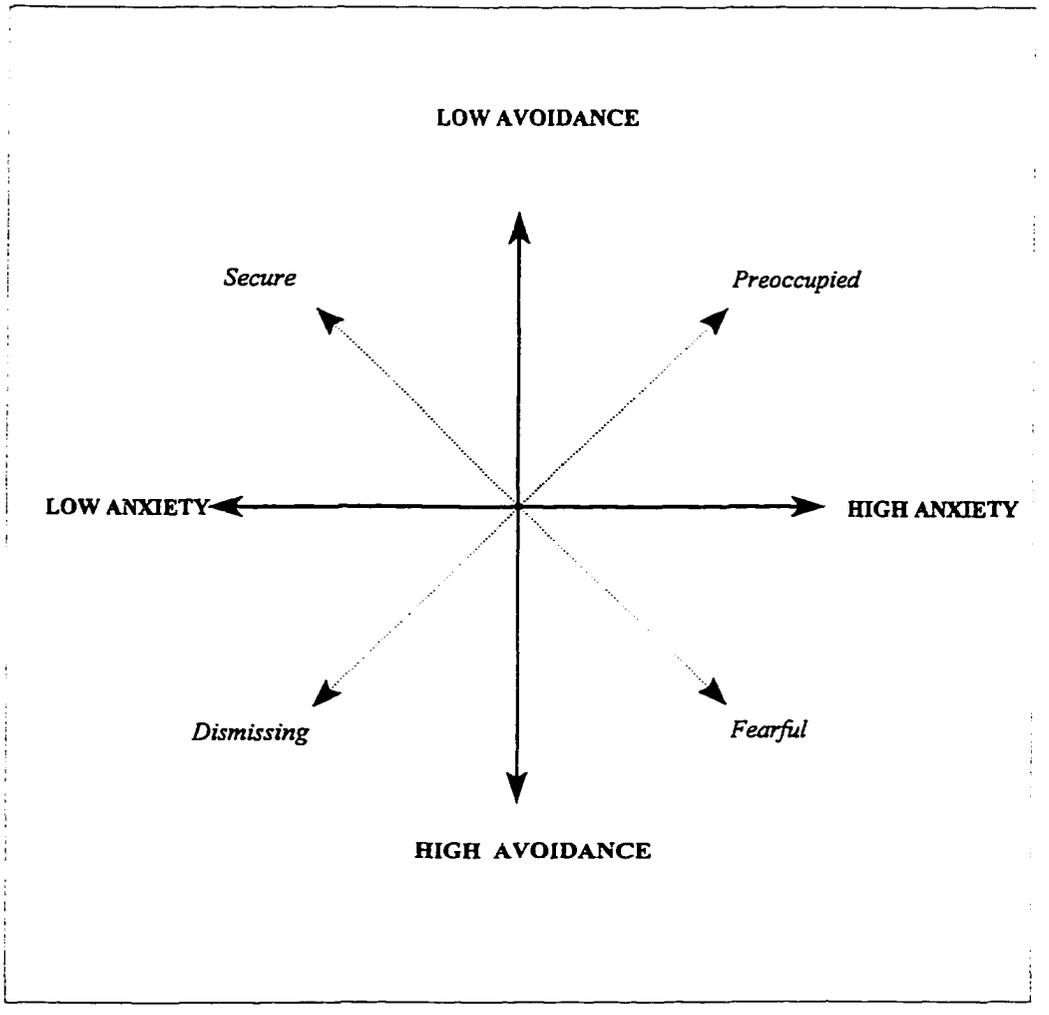
Figure 4.

Anxiety and Avoidance Dimensions Captured in Two-Dimensional Space.



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Mental Representations

Psychoanalytic theory with its emerging theoretical emphasis on object relations (Kernberg, 1976; Mahler, Pine, & Bergman, 1975; Winnicott, 1960), has increasingly focused on the role of mental representations or cognitive-affective representations of self and other (Beres & Joseph, 1970; Blatt, 1974; Blum, 1961; Sandler & Rosenblatt, 1962) in personality development (Westen, 1990 for an integration of object relations theory and social cognition). Both psychoanalytic and cognitive-developmental theory stress how individuals establish and maintain meaning systems, (schemata, plans, scripts, or representations) that organize and shape one's understanding of the self in relation to others. Schemata act as heuristic guides for subsequent behavior by organizing experiences and modulating affect. These enduring psychological structures provide templates for processing and organizing information so that new experiences are assimilated to existing mental structures (Blatt & Lerner, 1983).

Otto Kernberg postulates that mental representations derive from attachment relationships to caregivers through a process called internalization (the taking in of what is in the environment into one's own mind). Kernberg proposes that early experiences with others in relation to us are stored in memory and that these memories consist of three parts: (a) a self-representation; (b) a representation of others; and (c) the affective state characteristic of these interactions. For Kernberg, the degree of differentiation and integration of these representations of self and other, along with their affective valence is personality structure. The basic logic of Kernberg's model is that as development proceeds representations of self and others become increasingly more differentiated and

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integrated. These mature, integrated representations allow for the integration of good and bad, positive and negative and for the tolerance of ambivalence, difference and contradiction in ourselves and others. Similarly, Blatt and colleagues (Behrends & Blatt, 1985; Blatt, 1974; Blatt & Behrends, 1987; Blatt & Blass, 1990) proposed a developmental model of mental representations that integrates object relational and cognitive-developmental theories (Piaget, 1952; Werner, 1948). In this model development is viewed as a progressive unfolding of new cognitive schema that evolve out of earlier cognitive structures. Additionally, increasing differentiation and integration of mental models result in more consolidated and cohesive structures, and ultimately, more adaptive functioning.

One difficulty in studying mental representations is that an individual's representational world is not directly observable and may not be fully conscious or accessible to him or her. Thus, inferences must be made about mental representations from behaviors and language. Blatt, Mayman (e.g., Mayman, 1967), and their respective colleagues at Yale and the University of Michigan, developed methods to operationalize and systematically assess the development and impairment of self and object representations. The early research on mental representations applied new methods to standard psychological assessment procedures (i.e., Rorschach, TAT, dream reports and early memories) (Hatcher & Krohn, 1980; Mayman, 1967; Mayman & Faris, 1969; Krohn & Mayman, 1974; Ryan & Bell, 1984; Urist, 1977; Blatt, Brenneis, Schimek, & Glick, 1976; Westen, Lohr, Silk, Gold, & Kerber, 1990). Both groups used projective procedures based on the premise that responses to ambiguous stimuli will be "shaped by

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the organizing characteristics of the individual's representational world" (Blatt & Lerner, 1983, p. 195). Mayman and his colleagues examined primarily the thematic content of representations of projective test data. This research group developed the Early Memories Test, the Object Representation Scale for Dreams, and content and thematic measures of representation for the Rorschach. Blatt and his colleagues, focusing more on structural dimensions of object representation, developed a scale to assess human responses on the Rorschach. Subsequently, Blatt and colleagues (Blatt, Wein, Chevron, & Quinlan, 1979; Blatt et al., 1988; Blatt, Bers, & Schaffer, 1996; Diamond, Blatt, Stayner, & Kaslow, 1993) developed methods for assessing the content and structure of cognitive-affective schemata by evaluating open-ended descriptions of self and significant others (e.g., parents, therapist, romantic partners). Descriptions are scored for 12 specified traits or personal characteristics (e.g., benevolent, punitive) and the subject's degree of ambivalence about the person being described. Structural dimensions of the descriptions include the degree of articulation (number of personal characteristics described), conceptual complexity, and self-other differentiation.

Conceptual complexity of descriptions of parents in non-clinical samples has been 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 clinical samples, psychotic and borderline patients gave less differentiated and less conceptually complex descriptions (Bornstein & O'Neill, 1992), and more negative representations of both parents, expressing significantly more ambivalence (Bornstein & O'Neill, 1992). Moreover, conceptual complexity is

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negatively related to degree of psychopathology (Global Assessment Scale--GAS scores), presence and severity of hallucinations, and the impairment index on the MMPI (Bornstein & O'Neill, 1992). Increases in conceptual complexity, and degree of articulation (the number of scorable attributes) were related to independent assessments of change in clinical functioning (GAS scores) in long-term treatment of seriously disturbed adolescents and young adult inpatients (Blatt, Wiseman, Prince-Gibson, & Gatt, 1990; Blatt, Stayner, Auerbach, & Behrends, 1996). Thus, the content and structure of the representation of parents differ in clinical and non-clinical samples; they are related to independent assessments of level of psychopathology and clinical functioning in clinical samples and to aspects of general functioning in non-clinical samples.

Affect/Emotion Regulation

The concept of affect or emotion regulation is gaining increasing attention (Campos, Barrett, Lamb, Goldsmith & Sternberg, 1983; Campos, Campos, & Barrett, 1989; Gross & Levenson, 1993; Gross & Munoz, 1995; Izard, 1990; Morris & Reilly, 1987; Thayer, Newman, & McClain, 1994; Thompson, 1990; 1991). Emotion or affect regulation may be used to refer to either of two related phenomena: the regulation of behavior or mental processes *by* emotions or the regulation *of* emotions themselves. Thus, affect regulation is essentially the capacity to experience, differentiate, tolerate, and modulate affective states and experiences, particularly negative ones. This capacity for affect regulation is important for good adaptation. Moreover, impairments in affect regulation increase an individual's vulnerability to a wide range of psychopathologies. Clinical tradition dating back to Freud has emphasized that psychological health hinges on

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how affective impulses are regulated (Freud, 1923/1961). This tradition emphasizes two types of anxiety regulation (S. Freud, 1926/1959). The first concerns reality-based anxiety, which arises when situational demands overwhelm the ego. The second type of anxiety regulation concerns id- and superego-based anxiety, which arises when strong impulses press for expression. The psychoanalytic tradition is one important precursor to the contemporary study of emotion regulation. Although there has been increased interest in the construct of affect regulation, little systematic research has been conducted investigating the way in which mental representations influence the regulation of negative affective states and the role they play in the genesis of depression.

Both the development of mental representations and the establishment of attachment bonds go hand in hand with the formation of emotional regulatory capacities. Developmental and object relations attachment theorists (Bowlby, 1979; Guntrip, 1971; Main & Solomon, 1986; Stern, 1985; Tronick, 1989; Tronick & Gianino, 1986; Winnicott, 1956; 1958) all contend that the origin of the capacity for affect regulation results from the quality of affect attunement and regulation in early infant-parent relationships and the internalization (Behrends & Blatt, 1985) of the soothing functions these relationships provide (Emde, 1983; Hofer, 1990). Through internalizing aspects of exchanges initially encountered in caring relationships, the infant becomes increasingly able to assume self-regulatory functions. Increasingly, the infant participates in the interaction with the mother as a full partner and plays an important role in regulating levels of arousal. As development proceeds emotions and affective experiences become more differentiated and integrated resulting in heightened capacity for emotional regulation and

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modulation.

Attachment and Affect Regulation

Attachment and emotion regulation are closely linked (Cassidy, 1994). Attachment theory is concerned with the affective bond that unfolds between child and mother, and the impact of this bond for the child's nascent self-concept, view of the social world, and ways of dealing with negative affect (Bowlby, 1973; 1980; 1982). An important tenet of attachment theory is that parental responsiveness and sensitivity to the child's affective signals provide a critical context within which the child organizes emotional experiences and regulates "felt security" (Sroufe & Waters, 1977). Bowlby believed that the attachment relationship influences emotion regulation through the child's expectations (or working models) of parental behavior. Thus, individual differences in attachment quality underlie the quality of emotion regulation (Sroufe & Waters, 1977). The secure child develops expectations that his or her internal world, including emotional state, will be appropriately responded to. This by no means implies that secure children do not experience negative emotions. Secure children, however, exhibit less anxiety, less anger, and regulate negative affect more constructively than avoidant and anxious-ambivalent children. Learning to modulate, tolerate, and endure emotional arousal, whether positive or negative, is a central process in adaptive coping with the environment (Demos, 1986; Kopp, 1989).

In contrast, insecurely attached children have difficulties in the integration of negative affect. Moreover, avoidantly and anxious-ambivalently attached children's failure to integrate negative affect occurs in qualitatively different ways. Avoidant children,

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employ minimizing strategies. That is, they stifle, or minimize negative feelings. Minimizing strategies are characterized by efforts to distance oneself from emotional experience, particularly negative emotions. This is accomplished through a variety of cognitive or ideational strategies that objectify feelings using defenses such as rationalization, denial or idealization. It is important to note, however, that this does not imply that these individuals are not angry or afraid, or sad at some level. Often they do things that seem very angry (Bartholomew & Horowitz, 1991), or express fears that indicate a tremendous amount of unacknowledged anxiety (Dozier & Kobak, 1993; Feeney & Kirkpatrick, 1996; Mikulincer et al., 1990). Anxious-ambivalent children, in contrast, employ maximizing strategies to modulate their affect. Maximizing strategies are characterized by exaggerated amounts of negative emotion and a minimum amount of structure and organization. These individuals are flooded by emotion, and cannot find ways to contain negative affects, thoughts, and memories. Cognitive strategies usually fail to provide the needed distance and structure; thus, anxious-ambivalent children typically become dependent on the presence of others in order to modulate their negative affect states.

The different patterns of attachment are related to different strategies of managing the experience of affect--specifically in combating anxiety and depression and promoting feelings of happiness, security, and well-being (Ainsworth et al., 1978; Matas, Arend, & Sroufe, 1978; Sroufe & Waters, 1977). Securely attached children successfully modulate positive and negative affect through a combination of independent and interpersonally-oriented coping strategies. Insecurely attached children show less optimal emotional

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regulatory patterns, exhibiting either a predominantly self-reliant strategy for coping with stress or being heavily dependent upon external interpersonal regulatory support. Findings with infants, children, and adolescents (Main, 1990; Matas et al., 1978; Sroufe & Waters, 1977; Kobak & Screery, 1988; Mikulincer, 1990) indicate that secure subjects are less anxious, less hostile, and regulate negative feelings more constructively than either anxious ambivalent or avoidant subjects.

Kobak and Screery (1988) provided a good summary of attachment theory's account of individual differences in emotion regulation:

> Secure attachment [is] organized by rules that allow acknowledgment of distress and turning to others for support, avoidant attachment by rules that restrict acknowledgment of distress and the associated attachment attempts to seek comfort and support, and [anxious-] ambivalent attachment by rules that direct attention toward distress and attachment figures in a hypervigilant manner that inhibits the development of autonomy and self-confidence. (p. 142)

In other words, secure individuals should be able to acknowledge and then cope effectively with negative emotions, avoidant individuals try not to acknowledge negative emotions and consequently may act on emotions without full knowledge of the reasons, and anxious individuals are highly emotionally expressive but often cannot regulate their emotions or emotionally driven behavior effectively in line with personal interests or social norms.

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In sum, attachment theory is fundamentally a theory about emotion and emotion regulation (Sroufe & Waters, 1977). Repeated experiences with caregivers eventually lead infants to develop and internalize coping mechanisms, which manifested in chronic affective states (e.g., sadness, happiness) and habitual responses to attachment-aroused emotion. Attachment security becomes a superordinate organizing system, in itself, subsuming the goals of emotion regulation (Cummings & Davies, 1996). For these reasons, many theorists view affect as the central organizing force (Doane & Diamond, 1994; Kernberg, 1993) underlying the operation of internal working models and their impact on adult social behavior.

Representation and Affect Regulation.

Mental representations play a central role in the development of affect regulation. The differentiation and integration of representations impact on the capacity to experience affects as differentiated from bodily states, and to experience a full range of affects. These mental representations also structure generalized expectancies of the capacity to soothe oneself in the midst of discomfort, and influence the style one employs to regulate affects.

Piaget posited that schemata are progressively revised through the processes of assimilation and accommodation. Assimilation means revising what is taken in to fit the schema, while accommodation refers to the adjustment of the schema to what is taken in. At early levels of organization the capacity for assimilation is quite limited. Emotional information is primarily directed out into the environment. Interventions from caretakers are needed to add new information that modifies the emotional experience and schema for

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that experience. Over time the schemata that assimilate emotional arousal become more differentiated and integrated, so that more emotional information may be processed internally. The individual gradually develops new ways of representing experience, including emotional experience, that are more flexible and can capture more of the information contained in the arousal.

Novey (1961) suggested that internal representations of objects are affective experiences which are only secondarily perceived to have ideational content. Schmale (1964) proposed that affective experience and object representation originate from a common matrix and discussed how emotional experience becomes more differentiated with development by virtue of interactions with significant others. Mahler, et al. (1975) discussed how the development of a basic mood depends on the child's affective experience during the practicing and rapprochement subphases of the separation-individuation process and how the establishment of an easily retrievable mental representation of mother (i.e., object constancy) is a prerequisite for the capacity to maintain an awareness of a variety of feelings for the mother despite immediate circumstances. An empathic mother leads to internalization of a soothing presence. Both Blatt (Behrends & Blatt, 1985; Blatt & Behrends, 1987) and Stern (1985) note that representations of self and other develop in the context of the parent-child relationship and are imbued with an affective component that reflects the child's experience in the caring relationship. Similarly, Sandler and Sandler (1978) point out that affective experience is central to the internalization of object representations. An experience only has or retains meaning for the child if it is linked with feeling. Blum (1961) proposed associational

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networks and a theory of spreading activation described from an activated node in a network to related representations. These networks link cognitive and affective representation.

Several social-cognitive investigators have begun to link mood regulatory strategies to the content and structure of the self-concept (Dodge, Price, Bachorowaski, & Newman, 1990; Higgins, Klein, & Strauman, 1987; Higgins1989; Larsen & Dierner, 1987; Linville, 1985; 1987; Pipp, Shaver, Jennings, Lamborn, & Fischer,1985; Showers, 1992). For example, Higgins (1989) has proposed a cognitive developmental model that stresses the role of mental representations of caregivers in affect regulation and self-evaluation. Additionally, Linville (1985; 1987) studied the consequence of cognitive representations on affect regulation. She developed a model where increasing self complexity, an underlying cognitive process, acts as a moderator of emotional reactions. Those with higher self complexity are less prone to dysphoric feelings, mood variability , and feelings of depression following stressful events or failures. She hypothesized that self-complexity modulates affect by buffering the infiltration of a stressful event, failure, or negative evaluation, preventing it from spilling over and coloring the meaning of most important aspects of self-concept. Linville has shown that individuals who manifest greater cognitive complexity in their descriptions of themselves are less likely to experience extreme perturbations in their emotional equilibrium than individuals who manifest lower levels of cognitive complexity. Thus, low self-differentiation has been found to be related to affective extremity and the spreading of negative affect (Linville, 1985, 1987). Larsen and Diener (1987) suggested that differences in cognitive self-complexity are related to

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individual differences in affective reactivity. And because less differentiated people categorize information into a few, broad self-aspects, they have few options for analyzing information; thus, they are unable to prevent the impact of the experience from spreading with respect to the one evoked aspect. Pietromonaco (1985) suggests that self representations regulate affect, but that its structure may be shaped by the way people experience and react to affect. Conversely, Emde (1983) and Fonagy (1998) both note that affect regulation contributes to a sense of self as efficacious, as well as a greater sense of self cohesion and inner experience.

Following these ideas, Levy (1994) proposed a developmental model of emotions and emotion regulation that integrates theories in developmental (Donaldson & Westerman, 1986; Harter & Buddin, 1987; Werner, 1948), social (Fischer, Shaver, & Carnochan, 1989) and clinical psychology (Krystal, 1978; Thompson, 1986a, 1986b; Wilson, Passik, Faude, Gordon, & Abrams, 1989; Wilson, Passik, & Faude, 1990) regarding emotional representation. In this model, increasing differentiation and integration of affect and representation of emotions leads to greater emotional awareness, emotional tolerance, emotional regulation, and adaptive potential. Additionally, emotions and emotion regulation are seen as developing along a continuum from global, diffuse, event-like phenomena to more reflective and complex emotional experiences that include attention to subtle nuances. At the highest levels of emotion regulation, individuals experience emotions in many spheres (e.g., physiologically, as an action tendency, and reflectively); however, at this level these domains are well integrated, resulting in less intrapsychic conflict, increased adaptive potential and better overt functioning. Rather

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than a static product or state, emotions are viewed as a fluid and continuous process, which provide continuity to one's experience of self, discharge and physiological release, signals and pathways to internal states, and communicative functions both with oneself and with others.

Depression as a Failure in Emotion Regulation.

The concept of depression can refer to a mood, a symptom, a disorder, a syndrome, or a disease (Clayton, 1987). Depression, for example, is an affect state that can range in intensity form mild, transient, and intermittent dysphoria to severe, sustained, and disabling clinical disorders that involve profound dysphoric affect, distorted cognition, and neurovegetative disturbances such as sleep loss, weight loss, psychomotor retardation and/or agitation and physical and social anhedonia. Conceptualized as a mood, depression, refers to a momentary or enduring feeling state; symptoms refers to a subjective or objective mood recognized as abnormal in severity or quality; a disorder refers to a syndrome which defines a qualitatively distinct group of patients; a syndrome refers to a constellation of symptoms dominated by depressed mood; and a disease refers to a disorder that has been linked to a specific genetic, biochemical, physiological or structural abnormality. Whether depression and anxiety are better regarded as a mood, symptom, disorder, syndrome, or disease is more than mere pedantic quibbling and has important implications for how the etiology and treatment of problems with mood are conceptualized. The present study will focus on both depression and anxiety as dimensional or continuous mood states. Both these negative affective states can be understood as failures in affect regulation. That is, an inability to sustain positive

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emotions or a tendency to amplify negative emotions. While most people experience a variety of positive and negative affective states in the course of everyday life, usually transient increases in depression and/or anxiety are countered by adaptive affect regulatory efforts, which permit a return to normal mood states. However, in vulnerable individuals, increases in depressed or anxious mood are not met by successful regulatory measures.

Blatt (1974) proposes that individuals with impaired mental representations in terms of differentiation and integration are particularly vulnerable to both prolonged depression states and intense and distressing anxiety states. The lack of integration thwarts one's ability to counter usually mild and transient feelings of disappointment or mourning that occur in the course of everyday life, such as not doing as well on an exam as one might like or the disappointment of not seeing an important friend. The frequency, intensity, and duration of these negative emotional states depend, in part, on environmental circumstances which act as a stimulus for mental activity and in large part the content and structure of one's mental representations. More serious emotional distress such as formal depression can result from unsuccessful attempts at emotional regulation. The inability to evoke or sustain positive emotions and the tendency to amplify negative emotions (Wenzlaff & Grozier, 1988) stems in part from the structure and content of mental representations.

Consistent with this notion, Blatt, Wein, Chevron, & Quinlan (1979) found that intensity of depression and types of depressive experiences were significantly related to both content and structural qualities of mental representations of parents. Specifically, anaclitic depression (characterized by dependency, fears of abandonment, feelings of

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loneliness, and helplessness) was associated with lower conceptual level of representations than was introjective depression (characterized by self-criticism, feelings of unworthiness, inferiority, failure, and guilt). Further, non-depressed subjects scored highest on both conceptual level and on self-efficacy. Bornstein and O'Neil (1992) found that psychiatric patients' representations of parents were more negative, more ambivalent, and lower in conceptual level. However, they failed to find significant differences between diagnostic subgroups. Similarly, both Sadeh, Rubin, and Berman (1993) and Levy, Blatt, Quinlan, Baker, Malgozza, & Kaminetzy (1996) found that conceptual level of representations of parents was related to depression; however, it was not directly correlated with specific depressive dimensions. These findings indicate that mental representations of self and important others (e.g., parents) may be a central dimension in the development and expression of depression.

Statement of Hypotheses

The present study explores the relations among mental representations, attachment patterns, and affect regulation in the experience of depression. There are four main hypothesis.

Based on the theory and research reviewed above

1) Attachment style will be related to the content and structure of mental representations as assessed on the Object Representation Inventory (described in method section).

Specifically,

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a) those with secure attachment as compared to the three insecure styles will describe parents as significantly more benevolent, less punitive and with less ambivalence

b) among the insecurely attached subjects, preoccupied and fearful subjects will score significantly higher than dismissing subjects on measures of mental representations

c) both secure and fearful subjects will score significantly higher than preoccupied subjects on conceptual level, self-other differentiation, and scorable attributes.

2) Attachment style will be related to modes of affect regulation and developmental level of affect regulation as assessed using the Affect Regulation Questionnaire and the Affect Regulation Scale, respectively (both described later in the methods section). Specifically,

a) those with secure and preoccupied attachment will score significantly higher on interpersonal modes of affect regulation than fearful and dismissing attachment styles;

b) Secure, fearful, and dismissing subjects will score significantly higher on contemplative/cognitive modes of affect regulation than preoccupied subjects;

c) Dismissing subjects will score significantly higher than secure subjects on modes of affect regulation that involve activity and sex, drugs, and violent fantasies and behaviors;

d) Preoccupied subjects will score significantly higher than secure subjects on

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oral/somatic modes of affect regulation;

e) Secure subjects will score significantly higher than preoccupied and dismissing subjects in terms of developmental level of affect regulation;

f) Among the insecure groups, fearful subjects will score significantly higher than preoccupied and dismissing subjects in terms of developmental level of affect regulation.

3) Attachment styles will be related to depression as assessed by the Depressive Experience Questionnaire (described later in the method section).

Specifically,

a) Secure subjects will score significantly lower on both dependent and self-critical type depressions and higher on efficacy;

b) Among the insecure styles, fearful and preoccupied subjects will score higher than dismissing subjects on measures of dependency and self-criticism, and lower on efficacy.

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Chapter III

Research Design and Method

Procedures.

During a one-hour class session, subjects completed a packet of self-report measures, including Bartholomew's Relationship Questionnaire, the Affect Regulation Questionnaire, and written narratives describing themselves, their mother, their father, an important experience with their mother and how they felt about that experience, as well as other measures not relevant to the present study. The order of the measures were counterbalanced across four different test administration orders to prevent spurious effects due to the order of test administration.

Subjects.

Subject were 128 (72 male and 56 female) English speaking undergraduate students enrolled in introductory psychology classes at a New England state university. Subjects were voluntarily tested during a class period. Subjects' ages ranged from 17 to 51 (Mean = 21.8; S.D. = 5.78; median = 20.0), and were predominately white, single, and middl- class.

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Table 1.

Sample demographics.

Demographic Variable								
Sex:	Men	56	(43.4%)	Women	72	(55.8%)	Missing	1 (0.8%)
Age:	M	(S.D.)		21.78		(5.76)		
	Mode	(Range)		20		(17-51)		
				N		(%)		
Race:								
	Caucasian			101		(78.4%)		
	African-American			16		(12.4%)		
	Hispanic			6		(4.7%)		
	Asian			5		(3.9%)		
	Other			0		(0.0%)		
	Missing			1		(0.8%)		
Marital Status:								
	Single			115		(89.8%)		
	Married			10		(7.8%)		
	Separated			1		(0.8%)		
	Divorced			1		(0.8%)		
	Other			1		(0.8%)		
Class Year:								
	Freshman			34		(26.4%)		
	Sophomore			10		(7.8%)		
	Junior			43		(33.3%)		
	Senior			39		(30.2%)		

(Table continues)

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(Table continued)

Missing	3	(2.3%)
Occupation:		
Student	117	(90.9%)
Unemployed	0	(0.0%)
Employed	9	(6.9%)
Missing	3	(2.3%)
Parental Socio-Economic Status:		
I	10	(8.7%)
II	25	(19.4%)
III	30	(23.3%)
IV	43	(33.3%)
V	7	(5.4%)
Missing	14	(10.9%)

Note: There were no significant demographic differences among attachment groups.

For a number of reasons, college student populations are particularly well-suited for a study such as this one. First, college populations allow for large samples of relatively homogenous subjects exposed to a relatively homogenous environment (Beck & Young, 1978; Pennebaker, Colder, & Sharp, 1990; Vredenburg, Flett, & Krames, 1993). College populations also have some methodological benefits in that there is a reduced likelihood of other psychiatric disorders being present that can account for results (Kendall, Hollon, Beck, Hammen, & Ingram, 1987). They are also less likely than clinical populations to have received psychotherapy or psychopharmacotherapy. In contrast, clinical populations are often too heterogenous and suffer from substantial comorbidity that make clear

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interpretation of findings difficult. Studies investigating questions related to vulnerabilities and predispositions may actually be better addressed in non-clinical populations in which subjects are relatively free of clinical symptoms, yet presumably still vulnerable to pathology (Vredenburg, Flett, & Krames, 1993).

Power Analysis.

The sample size was determined by power analysis in which alpha was set at the .05 level of significance with a beta equal to .20 (risk of Type II error) and thus a .80 probability of rejecting the null hypothesis (Risk of Type I error). These probabilities for Type I and II errors are the risks recommended by Cohen (1992). The effect size was determined using means and standard deviations from Levy, Blatt, and Shaver (1998) and Schaffer (1993). Power analysis using the formula provided by Howell (1992) yielded a need for 85 subjects for correlational analyses and 22 subjects per group for 4 independent means. However, cluster analysis usually requires at least one hundred subjects (Rapkin & Luke, 1993) as does path analysis (Kline, 1991).

Measures.

Demographics. A brief demographics questionnaire was distributed to all participants. Variables included the participant's age, gender, race, year in school, and several different questions pertaining to the participant's relationship status and history (e.g., number of past romantic relationships, current romantic relationship status, duration of any current romantic involvement if applicable, and variables related to the configuration of the participant's family of origin (e.g., number of siblings, birth order; see Appendix B).

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Measures.

Adult Attachment Measures.

Relationship Questionnaire (RQ; Bartholomew, 1989; Bartholomew & Horowitz, 1991; See Table 2). This brief one-page attachment questionnaire asks subjects, in general, about their attachment style. Subjects are asked to choose one of four vignettes that best characterizes them in romantic relationships. Next, subjects are asked questions in Likert-type format. This measure is based on Hazan and Shaver (1987) three-category attachment measure.

Table 2.

Relationship Questionnaire

Attachment Style	Vignette
Secure	It is relatively easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don't worry about being alone or having others not accept me.
Fearful	I am somewhat uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I sometimes worry that I will be hurt if I allow myself to become too close to others.
Preoccupied	I want to be completely emotionally intimate with others, but I often find others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.

(Table continues)

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(Table continued)

Dismissing	I am comfortable without close relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

In several studies the Hazan and Shaver measure has been shown to be both reliable and valid (Collins & Read, 1990; Davis, Levy, & O'Hearn, 1991; Feeney & Noller, 1990; Levy & Davis, 1988; Mikulincer, et al., 1990; Simpson, 1990; Simpson et al., 1992). Bartholomew's attachment measure is similar to the Hazan and Shaver measure, except that Bartholomew modified the original three-category attachment measure by differentiating between two different avoidant attachment styles – a fearful style, characterized by a desire for but a conscious fear of intimacy, and a dismissing style, characterized by a defensive denial of the need and/or desire for relatedness. Recent research indicates that this distinction has become increasingly important (see Brennan, Shaver, & Tobey, 1991; Bartholomew & Horowitz, 1991; Feeney, Noller, & Hanrahan, 1994; Horowitz, Rosenberg, & Bartholomew, 1993; Levy, Blatt, & Shaver, 1998). Additionally, the convergence of interview ratings and subjects' self-ratings has found similar patterns (Bartholomew & Horowitz, 1991). Moreover, Bartholomew's self-report and interview measures were both significantly related to peer reports provided by subjects' friends, suggesting the usefulness of this self-report measure.

Prior research (Levy, Blatt, & Shaver, 1998; Levy & Kelly, in review) found the correspondence between categorical attachment styles over a one to two month period

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was 76%, with a weighted kappa of .65 ($p.<.05$) for both the Hazan and Shaver and Bartholomew measures. These reliabilities are similar to previous studies that found 70-75% of introductory psychology students choose the same categorical attachment-style over an 8-12 month period (Brennan & Shaver, 1990; Shaver & Brennan, 1992).

Correlations of these four attachment styles found that secure attachment is negatively correlated with the fearful, dismissing avoidant and preoccupied styles ($r = -.32$, $p<.01$; -.18, ns; and -.14, ns, respectively), fearful attachment is negatively correlated with dismissing attachment and uncorrelated with preoccupied ($r = -.17$, ns; -.02, ns, respectively). Preoccupied and dismissing attachment are negatively correlated ($r = -.21$, ns). While only one of these correlations is significant their sizes are compatible with Bartholomew's placement of the four styles in a two-dimensional conceptual space.

Bartholomew's four attachment vignettes also were broken apart into 14 individual items, each rated on a 7-point Likert-type scale (1 = strongly disagree and 7 = strongly agree). To control for acquiescence response biases, 7 items were worded in a negative direction. Subjects rated the following items according to how they typically felt toward romantic partners in general: 1.) It is relatively easy for me to become emotionally close to others; 2.) I am comfortable depending on others and having others depend on me; 3.) I don't worry about being alone or having others not accept me; 4.) I am somewhat uncomfortable getting close to others; 5.) I want emotionally close relationships; 6.) I find it difficult to trust others completely, or to depend on them; 7.) I sometimes worry that I will be hurt if I allow myself to become too close to others; 8.) I want to be completely emotionally intimate with others; 9.) I often find others are reluctant to get as

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close as I would like; 10.) I am uncomfortable being without close relationships; 11.) I sometimes worry that others don't value me as much as I value them; 12.) I am comfortable without close emotional relationships; 13.) It is very important to me to feel independent and self-sufficient; 14.) I prefer not to depend on others; 15.) I find it difficult to allow myself to depend on others; 16.) People are never there when you need them; 17.) I am comfortable depending on others; 18.) I know that others will be there when I need them; 19.) I find it difficult to trust others completely; 20.) I am not sure that I can always depend on others to be there when I need them; 21.) I do not often worry about being abandoned; 22.) I often worry that my partner does not really love me. 23.) I often worry my partner will not want to stay with me. 24.) I want to merge completely with another person; 25.) My desire to merge sometimes scares people away. 26.) I do not worry about someone getting too close to me; 27.) I am nervous when anyone gets too close; 28.) I am comfortable having others depend on me; 29.) Often, love partners want me to be more intimate than I feel comfortable being. Items 1, 2, and 3 were from Bartholomew's secure description; items 4, 5, 6, 7 were from the preoccupied description; items 8, 9, 10, 11, and 12, 13, 14 were from the fearful and dismissing avoidant descriptions, respectively. The remaining 15 items come from the multi-item measure developed by Collins and Read (1990).

Measures of representation.

The Object Representation Inventory (ORI; Blatt, Wein, Chevron & Quinlan, 1979; Blatt, Chevron, Quinlan, Schaffer, & Wein, 1988). The ORI is an open-ended interview in which subjects are asked to describe each of the following individuals:

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Mother, father, self, an experience with their mother and how they felt about that experience.

Blatt and his colleagues have developed a number of scales to score various aspects of these descriptions (Blatt, Bers, & Schaffer, 1992; Blatt, Wein, Chevron & Quinlan, 1979; Blatt, Chevron, Quinlan, Schaffer, & Wein, 1988; Diamond, Blatt, Stayner, & Kaslow, 1993; Diamond, 1986; Levy, 1994).

Qualitative and Structural Dimensions of Parental Descriptions (Blatt et al., 1988). Descriptions of parents were rated on 7-point scales for the following 12 traits or personal characteristics: Affectionate, ambitious, benevolent, constructively involved, intellectual, judgmental, nurturant, punitive, strong, successful, positive ideal, and warm.

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 aspiration 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.

(Table continues)

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(Table continued)

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 other's 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 one is described as someone whom an individual 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

(Table continues)

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(Table continued)

	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 individual is described as feeling satisfied with his or her own accomplishments, whatever those accomplishments might be.
Strength (strong-weak)	The extent to which the individual 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.

Blatt and colleagues (Quinlan, Blatt, Wein & Chevron, 1992) report a stable three factor structure for the ratings of these 12 characteristics which they labeled as benevolent, punitive, ambitious. Each description was also scored for the subject's degree of ambivalence about his/her parents, length of narrative, the number of the 12 personal characteristics included in the description, and the conceptual level of the description using a 9-point developmental continuum of increasing complexity from (1) a sensorimotor-preoperational level where the parent is described primarily in terms of providing need gratification to (9) a conceptual representation where the parent is described as a unique individual with an integration of external and internal characteristics and traits (Blatt,

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1974; Blatt et al., 1988; See Table 4, below).

Table 4.

Conceptual Level Scale for Descriptions of Self and Object Representations

Level/Scale Point	Description
1. Sensorimotor - Preoperational (Score 1)	The person is described primarily in terms of the gratification or frustration he/she provides. There is little sense that the person is experienced or defined as an entity separate and independent of his/her direct effect on the subject's pleasure or pain.
2. Concrete - Perceptual (Score 3)	The person is described primarily in concrete literal terms, often in terms of physical attributes. Emphasis is often on what the person looks like in terms of external physical characteristics.
3. Iconic (Score 5-7)	
a. External Iconic (Score 5)	Description is primarily of the person's activities and functions.
b. Internal Iconic (Score 7)	The person is described in terms of attributes of what he/she thinks, feels and values, rather than what he/she does. The description is based more on internal psychological dimensions.
4. Conceptual (Score 9:)	The description of the person integrates a wide range of levels such that external appearances and activities are contrasted and

(Table continues)

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(Table continued)

	integrated with internal dimensions. Apparent contradictions are resolved in an integrated, complex, coherent synthesis.

Parental descriptions have been scored reliably for these content and structural variables (Blatt et al., 1979, Bornstein, Galley, & Leone, 1986; Bornstein, Leone, & Galley, 1988; Diamond et al., 1993). These variables are stable over time (Bornstein, Leone, & Galley, 1990) and are unrelated to intelligence, verbal productivity or socioeconomic status (Blatt et al., 1979; Wilson, 1982; Bornstein et al., 1986, 1988). Previous research supports the construct and predictive validity of these measures of object representation (Blatt et al., 1979; Blatt et al., 1990; Bornstein & O'Neill, 1992; Lane et al., 1990; Marziali & Oleniuk, 1990; Schultz & Selman, 1989; see Fishler, Sperling, & Carr, 1990; Stricker & Healey, 1990, for reviews).

Self-Description Rating Scales (Blatt et al., 1992). Based on a review of the clinical, social, and developmental literature, Blatt and colleagues (Blatt et al., 1992) identified aspects of the sense of self and developed scales to capture dimensions of self-representations across a broad range from normality to severe psychopathology. Six categories of scales were developed to apply to spontaneous self descriptions: Mode of description; relatedness to others; cognitive variables; self-view, developmental scales, and dysphoric affect. A factor analysis of all the scales except the dysphoric affect scales was performed on a sample 171 non-clinical male and female subjects. The dysphoric affect

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scales were excluded because they might be relatively state dependent. Five factors with eigenvalues greater than 1 were found: agency, reflectivity, differentiation, relatedness; and relatedness to examiner. Alpha reliabilities were as follows: Pearson r correlations of inter-rater reliability of self descriptions were obtained between trained undergraduates and doctoral level psychologists and ranged from .74 to .99. In the present study, the following content scales were used: Anxiety, Depression, Negative-Positive Ideal, and Self-Critical. In addition, narratives were rated for both degree of differentiation-integration and conceptual level.

Differentiation-Relatedness Scale of Self and Object Representations (Diamond et al., 1993). This scale is derived primarily from an integration of the developmental psychoanalytic theories of Mahler, Jacobson, and Kernberg with that of Stern. The degree of self-other differentiation and relatedness is rated on a 10-point scale, ranging from self-other confusion to a cohesive and interrelated sense of self and other.

Table 5.

Differentiation-Relatedness of Self and Object Representations

Level/Scale Point	Description
1. Self/other boundary	Basic sense of physical cohesion or integrity compromise of representations are lacking or are 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

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(Table continues)

(Table continued)

	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

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others.

(Table continues)

(Table continued)

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 perspectives 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.

Initial validity studies for this scale are encouraging. The levels of differentiation and relatedness, particularly self representations, were significantly related to independent assessments of clinical functioning. Moreover, changes in scores of representations of mother, father, self, and therapist predicted therapeutic change over a two-year period (Blatt, Stayner, Auerbach, & Behrends, 1996). The relationship between level of differentiation-relatedness of representations of self and other and levels of clinical functioning, as well as the degree of clinical change, were independent of socio-

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demographic (e.g., intelligence, age) and clinical variables (e.g., length of hospitalization, age of onset). (Diamond, Blatt, Stayner, & Kaslow 1993, Diamond, Kaslow, Coonerty, & Blatt, 1991).

Measures of Affect Regulation.

The Affect Regulation Scale (ARS; Schaffer, 1993). The ARS is a 91-item questionnaire, which uses a 6-point Likert scale (from "never" to "always") to ask subjects to rate the frequency with which they engage in a wide range of strategies (actions, thoughts, etc.) in order to regulate and soothe their experiences of anxiety and painful affect states. In her initial study with 171 undergraduates and 176 adults in out-patient psychotherapy, Schaffer identified five factors as follows: (1) Action/activities; (2) Cognitive/contemplative; (3) Passivity/somatic; (4) Interpersonal behaviors and fantasy; and (5) Sexual/aggressive fantasies and behaviors. The five factors utilized 59 of the 91 items (16 items on Factors 1 and 2, and 9 items each on Factors 3,4,and 5). Schaffer's Cronbach alpha coefficients for factor subscales ranged from .74 to .84 and test-retest reliabilities ranged from .74 to .89, with a mean test-retest reliability of .84. In the present study, the 91 items were factor analyzed using principal components analysis with varimax rotation. Consistent with Schaffer's initial findings, the five factors were generally replicated; however, a sixth factor, consisting of the use of self injurious behaviors to regulate affect (e.g., suicidal thoughts, self-cutting, use of diuretics, pinch and hit self, and engage in self destructive behaviors), also emerged. This sixth factor had a Cronbach alpha coefficient of .75.

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Table 6.

Pearson Correlations between ARQ Factors.

	Activities	Cognitive	Oral	Interpersonal	Sex, Drugs	SIB
Activities	----	.63***	.40***	.60***	.07	.11
Contemplative		----	.36***	.68***	.22*	.04
Oral Somatic			----	.38***	.31**	.32**
Interpersonal				----	.07	.05
Sex, Drugs, and Violence					----	.35***
Self Injurious Behaviors						----

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

Developmental Level of Affect Regulation Scale for Spontaneous Descriptions of Feelings (Levy, 1994). Based on a review of the clinical, social, and developmental literature, Levy (1994) developed a dimensional rating scale with five levels to be applied to verbal and written narrative descriptions of feelings in order to assess the developmental level of affect regulation. In this model emotions and emotion regulation becomes increasingly more differentiation and integrated, ranging on a continuum from global, diffuse, event-like phenomena to more reflective and complex emotional experiences that include attention to subtle nuances. Scale points are as follows: Level 1-Sensorimotor Affective States; Level 2-Action Tendency Affects; Level 3-Stereotypical Affects; Level 4-Internal and Differentiated Affects; and Level 5-Integrated and Empathic Affects (see Appendix H).

Measure of Depression.

Depressive Experience Questionnaire (DEQ; Blatt, D'Afflitti, & Quinlan, 1976). The DEQ, a 66-item questionnaire, was designed to assess a broad range of feelings and beliefs regarding the self and general interpersonal relationships reported by depressed patients rather than to assess the primary clinical symptoms of depression. Subjects rate each item on a 7-point Likert-type scale. Factor analysis consistently identifies three orthogonal factors in the DEQ: Dependency (Relatedness), Self-Criticism (Self-definition), and Efficacy. These factors are stable and have good levels of internal consistency. Additionally, these factors have also been replicated in other samples (Zuroff, Quinlan, & Blatt, 1990), and numerous studies demonstrate the validity of the three factors in both clinical and non-clinical samples (Blaney & Kutcher, 1991; see Blatt & Zuroff, 1992, for a

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review).

Blatt, Zohar, Quinlan, Zuroff, and Mongrain (1995), used Facet Theory and Smallest Space Analysis (Guttman, 1982) to identify two subscales within the Dependency Factor of the DEQ: (a) an anaclitic dependency (or neediness) subscale, characterized by items that express intense apprehensions about feelings of helplessness, separateness and rejection, and loss of gratification, in a broad and general way without being linked to a particular relationship; and (b) a relatedness subscale, characterized by items which measure sadness in response to a potential loss of a specific person and loneliness in response to disruptions of particular relationships. The anaclitic neediness subscale was found to have significantly greater correlations with independent measures of depression, while the relatedness subscale has significantly higher correlations with measures of self-esteem. These findings are consistent with recent findings by Rude and Burnham (1995) who, using factor analytic procedures, also identified two subfactors within the DEQ Dependency factor--one adaptive and other maladaptive. They labeled these subfactors Neediness (anxious concerns regarding rejection) and Connectedness (a valuing of relationships and a sensitivity to one's affect on others).

The DEQ was scored using the factor-weighting procedure provided by Blatt et al. (1976). In addition, we used Blatt and colleagues' newly derived Anaclitic Neediness (10 items from the Dependency Factor) and Relatedness (8 items from the Dependency factor) subscales. Internal consistency in the present sample for the DEQ factors and subscales were at acceptable levels; Cronbach alpha coefficients were as follows: Dependency Factor .77; Anaclitic Neediness subscale .77; Interpersonal Depression subscale .73;

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Self-Criticism factor .87; Efficacy Factor 81. Means and standard deviations, as well as intercorrelations between the DEQ factors and subscales are shown in Table 7.

Table 7.

Zero-order Pearson correlations between DEQ factors and subscales.

DEQ	Depend-ency	Anaclitic Neediness	Interpersonal Depression	Self-Critical	Efficacy
Dependency	----	.81***	.85***	.21*	.13
Anaclitic Neediness		----	.65***	.46***	-.07
Interpersonal Relatedness			----	.32***	.26*
Self-Critical				----	.07
Efficacy					----
M	-0.58	39.12	37.45	-0.43	-0.35
S.D.	(0.88)	(9.17)	(7.10)	(1.04)	(1.15)

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

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Table 8 on the following page summarizes the study constructs and the measures used to assess to assess each construct.

Table 8.

Summary of Constructs and Measures Used to Assess the Constructs.

Construct	Measure and Domains Assessed
Attachment Style	The Relationship Questionnaire
	Secure
	Fearful Avoidant
	Anxious-Ambivalent/Preoccupied
	Dismissing Avoidant
Representation	Object Representation Inventory
	Self Description
	Conceptual Level
	Differentiation
	Anxiety
	Depression
	Negative-Positive
	Self-Critical
	Mother and Father Description

(Table continues)

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(Table continued)

	Benevolent
	Punitive
	Ambivalence
	Conceptual Level
	Differentiation
Affect Regulation	Affect Regulation Questionnaire
	Activities
	Contemplative
	Oral-Somatic
	Interpersonal
	Sex, Drugs, & Violence
	Self-injurious Behaviors
	Level of Affect Regulation Scale
	Level 1-Sensorimotor Affective States
	Level 2-Action Tendency Affects
	Level 3-Stereotypical Affects
	Level 4-Internal and Differentiated Affects
	Level 5-Integrated and Empathic Affects.
Depression	Depressive Experiences Questionnaire
	Dependency

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	Relatedness & Anaclitic Neediness
	Self-Criticism
	Efficacy

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Chapter IV

Data Analytic Strategy

Data analysis proceeded in two phases: First, I conducted a factor analysis of the multi-item attachment measure, a subsequent cluster analysis of subjects based on the Factors derived from the multi-item measure, a multivariate examination of the clusters, and a comparison between the cluster-based attachment groups and the self-report checkmark measure. Second, I conducted the primary analyses of the study hypotheses. In this phase I correlated the attachment dimensions and Factors with the measures of representation, affect regulation, and depression and anxiety; and performed multivariate analysis of variance with attachment style as the independent variable and representation, affect regulation, and depression scores as the dependent variables. Lastly, I conducted stepwise regression analyses to predict dependent and self-critical depression scores using attachment, affect regulation, and representational scores as independent variables.

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Chapter V

Results

Construction of attachment indexes.

A principal component factor analysis with varimax rotation was conducted. Factors were extracted on the basis of eigenvalue greater than 1, scree testing (Cattell, 1978), factor interpretability, and internal consistency. As indicated in Table 9, seven main factors with eigenvalues greater than 1 emerged accounting for 64.7% of the variance in scores. However all indicators suggested a six factor solution.

Table 9.

Principle Components Factor Analysis Eigenvalues for Relationship Questionnaire Items.

Component	Eigenvalue	% of Variance	Cumulative % of Variance
Factor 1	7.15	23.8	23.8
Factor 2	4.93	16.5	40.3
Factor 3	1.95	6.5	46.8
Factor 4	1.73	5.8	52.6
Factor 5	1.33	4.4	57.0
Factor 6	1.26	4.2	61.2
Factor 7	1.05	3.5	64.7

First, scree testing indicated an elbow beginning after the 3 factor and leveling off after the sixth factor (see Figure 5). Second, the Cronbach alpha's was inadequate for the last factor. Third and most importantly, the six factor solution enhanced interpretability.

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Thus, a six factor solution was retained. The first Factor included 5 items representing anxiety about abandonment from others, the second factor included 6 items representing fearfulness about being hurt, the third factor consisted of 5 items representing desire for intimate relationships and comfort with closeness. The last three factors each consisted of 3 items. Factor 4 consisted of items representing not being able to depend on others, Factor 5 represented comfort with dependency, and the final factor represented dismissiveness of attachment. Subscales measuring the factor constructs were calculated using the average item scores as opposed to weighted item scores (Cohen, 1990). Higher scores reflect greater anxiety about abandonment, greater fear of being hurt, greater comfort with closeness, greater difficulty depending on others, greater comfort with dependency, and greater dismissiveness of attachment. Internal consistency of the factors was assessed from the subscale scores using Cronbach Alpha's. Alpha's for the six factors were as follows: Factor 1 = .90; Factor 2 = .80; Factor 3 =.78; Factor 4 = 81; Factor 5 = 79; and Factor 6 = 55. These Alpha's are adequate indicating that the factor subscales represent independent and cohesive constructs. Item-factor correlations are also reported in Table 10.

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Table 10.

Item-factor Correlations for Factor Analysis of Relationship Questionnaire (R.Q.) Items.

Item #	Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
24.	I often worry my partner will not want to stay with me.	.84					
23.	I find others are reluctant to get as close as I would like.	.83					
22.	I often worry that my partner does not really love me.	.78					
11.	I sometimes worry that others don't value me as much as I value them.	.74					
26.	My desire to merge sometimes scares people away.	.73					
27.	I find it difficult to trust others completely, or to depend on them.		.74				

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(Table continued)

Factor analysis of Relationship Questionnaire (R.Q.) items.

Item #	Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
19.	I find it difficult to trust others completely.		.72				
30.	I am nervous when anyone gets too close.		.66				
4.	Sometimes I feel very big, and other times I feel very small.		.61				
28.	I do not worry about someone getting too close to me.		-.55				
7.	I sometimes worry that I will be hurt if I allow myself to become too close to others.		.53				
8.	I want to be completely emotionally intimate with others.			.76			

(Table continues)

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(Table continued)

Factor analysis of Relationship Questionnaire (R.Q.) items.

Item #	Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
5.	I want emotionally close relationships.			.74			
25.	I want to merge completely with another person.			.63			
32.	Often, love partners want me to be more intimate than I feel comfortable being.			-.60			
1.	It is relatively easy for me to become emotionally close to others.			.59			
16.	People are never there when you need them.				.76		
18.	I know that others will be there when I need them most.				-.75		

(Table continues)

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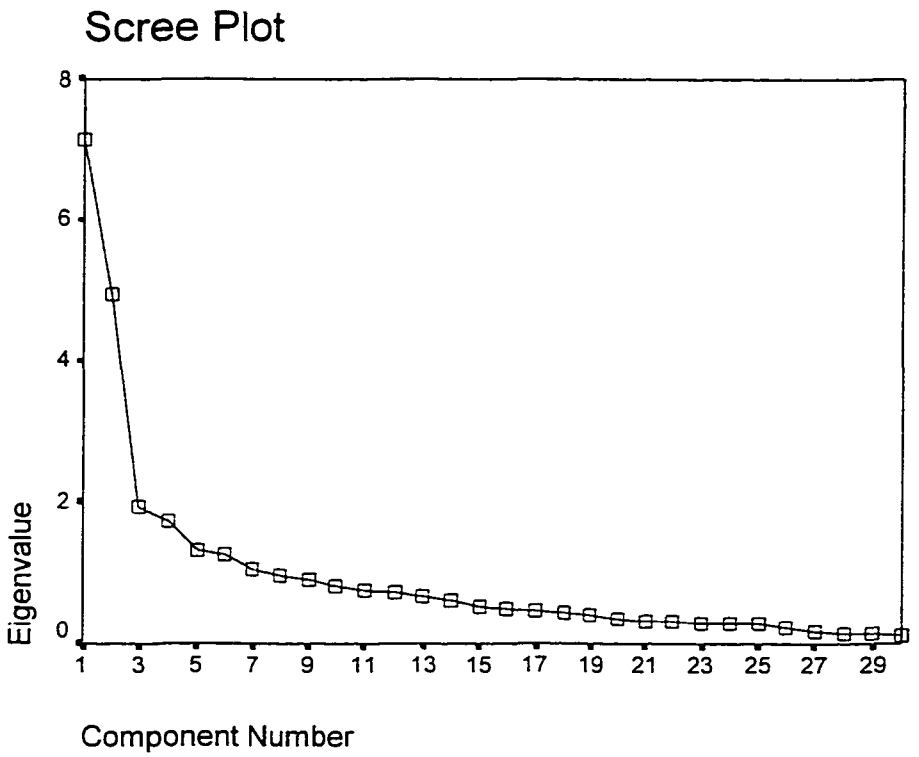
(Table continued)

Factor analysis of Relationship Questionnaire (R.Q.) items.

Item #	Item	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
20.	I am not sure that I can always depend on others to be there when I need them.				.75		
17.	I am comfortable depending on others.					.83	
15.	I find it difficult to allow myself to depend on others.					-.61	
2.	I am comfortable depending on others and having others depend on me.					.58	
13.	It is very important to me to feel independent and self-sufficient.						.72
12.	I am comfortable without close emotional relationships.						.54
14.	I prefer not to depend on others or have others depend on me.						.52

Figure 5.

Scree Plot for Factor Analysis of Relationship Questionnaire Items.



As for the relationship between factors, as shown in Table 11, Factor 1 (Anxiety about Abandonment) was significantly correlated with Factor 2 (Fear of Hurt), $r = .40$, $p < .001$ and Factor 4 (Unable to Depend), $r = .40$, $p < .001$; Factor 1 was uncorrelated with Factor 3 (Wants Closeness), $r = .13$, ns, Factor 5 (Comfortable with Dependency), $r = -.15$, ns and Factor 6 (Dismissing of Attachment), $r = -.05$, ns; Factor 2 was significantly negatively correlated with Factor 3, $r = -.36$, $p < .001$ and Factor 5, $r = -.61$, $p < .001$; Factor 2 was significantly correlated with Factors 4 and 5, $r = .43$, $p < .001$ and $r = .29$, p

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< .01, respectively. Factor 3 was uncorrelated with Factor 4, r = -.11, ns and significantly correlated with Factor 5, r = .46, p < .001, and significantly negatively correlated with Factor 6, r = -.40, p < .01. Factor 4 was significantly negatively correlated with Factor 5, r = -.49, p < .001, and significantly correlated with Factor 6, r = .27, p < .01. Finally, Factor 5 was significantly negatively correlated with Factor 6, r = -.61, p < .001.

The pattern of these correlations are compatible with Bartholomew's placement of the four styles in a two-dimensional conceptual space. In fact, when subjected to principal components analysis followed by varimax rotation, the six Factors produced two factors with eigenvalues greater than 1.0, the first accounting for 45.3% of the variance; the second, for 23.1%. Table 12 shows that on the first factor, the Comfort with Closeness factor loaded .79, the Comfort with Dependency factor loaded .77 and Dismissing of Attachment loaded -.79. The other three factors loaded below .25. On the second factor, the Anxiety about Others Factor loaded .85; the Can't Depend on Others Factor, .74; the Fear of Being Hurt Factor, .67; and Comfort with Dependency loaded -.45. The other two ratings loaded below .27.

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Table 11

Zero-order Correlations between Relationship Questionnaire Factors.

	Anxiety	Fear of hurt	Wants Close	Can't Depend	Comfort w/ Depend	Dismissing Attachment
Anxiety	------	.40***	.13	.40***	-.15	-.05
Fear of Hurt		------	-.36***	.43***	-.61***	.29**
Wants Close			-----	-.11	.46***	-.40***
Can't Depend				-----	-.49***	.27**
Comfort with Depend					-----	-.61***
Dismissing of attachment						----

** $p < .01$. *** $p < .001$. (All test two-tailed).

Table 12.

Principal Component Analysis with Varimax Rotation of Relationship Questionnaire Factors.

	Factor I	Factor II
Comfort with Close	.79	
Comfort with Depend	.77	-.45
Dismissing of attachment	-.79	
Anxiety about other		.85
Can't Depend		.74
Fear of hurt		.67
Eigenvalues	2.72	1.39
% Variance	45.3	23.1

Creation of Attachment Groups. Cluster analysis was used to classify subjects into categorical attachment groups based on the two factor scales. Conceptually, cluster analysis seeks to separate a heterogeneous groups of individuals into subgroups whose members are more similar to each other than they are to the other groups. It achieves this by placing all subjects in an *n* dimensional space based on scores of a set of criterion variables (e.g., the factor scale scores) and determining mathematically the location of the average scores of subgroups that gives the most clearly defined clusters. The ideal solution is one in which individuals within a cluster are relatively close or similar to each other and relatively far from or dissimilar to individuals in other clusters. In this study,

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Ward's minimum-variance with Euclidean distance method was used. As clustering techniques are sensitive to the presence of outliers (Lorr, 1983), stem-and-leaf plots of the two factor subscales were examined prior to analysis and showed no outliers. Several heuristic techniques have been suggested for determining the optimal number of clusters. One procedure is to graph the number of clusters (on the Y axis) against the amalgamation coefficient (on the X axis), which represents the within-group variance or degree of similarity among cluster members (Aldenderfer & Blashfield, 1984). The curve is then examined for the point at which it flattens, suggesting that similarity among cluster members has been greatly reduced.

This technique is similar to the "scree test" used in factor analysis. A flattening in the curve began after the four-cluster solution, and was basically flat at the three-cluster solution, implying that there were four clusters in the data.

A second, related procedure is to examine the fusion (or amalgamation) coefficients (the numerical value at which various cases merge to form a cluster) were examined to discover a significant "jump" in the value of the coefficient, which implies that two dissimilar clusters have been merged. The number of clusters prior to the merge is the most probable solution (Aldenderfer & Blashfield, 1984).

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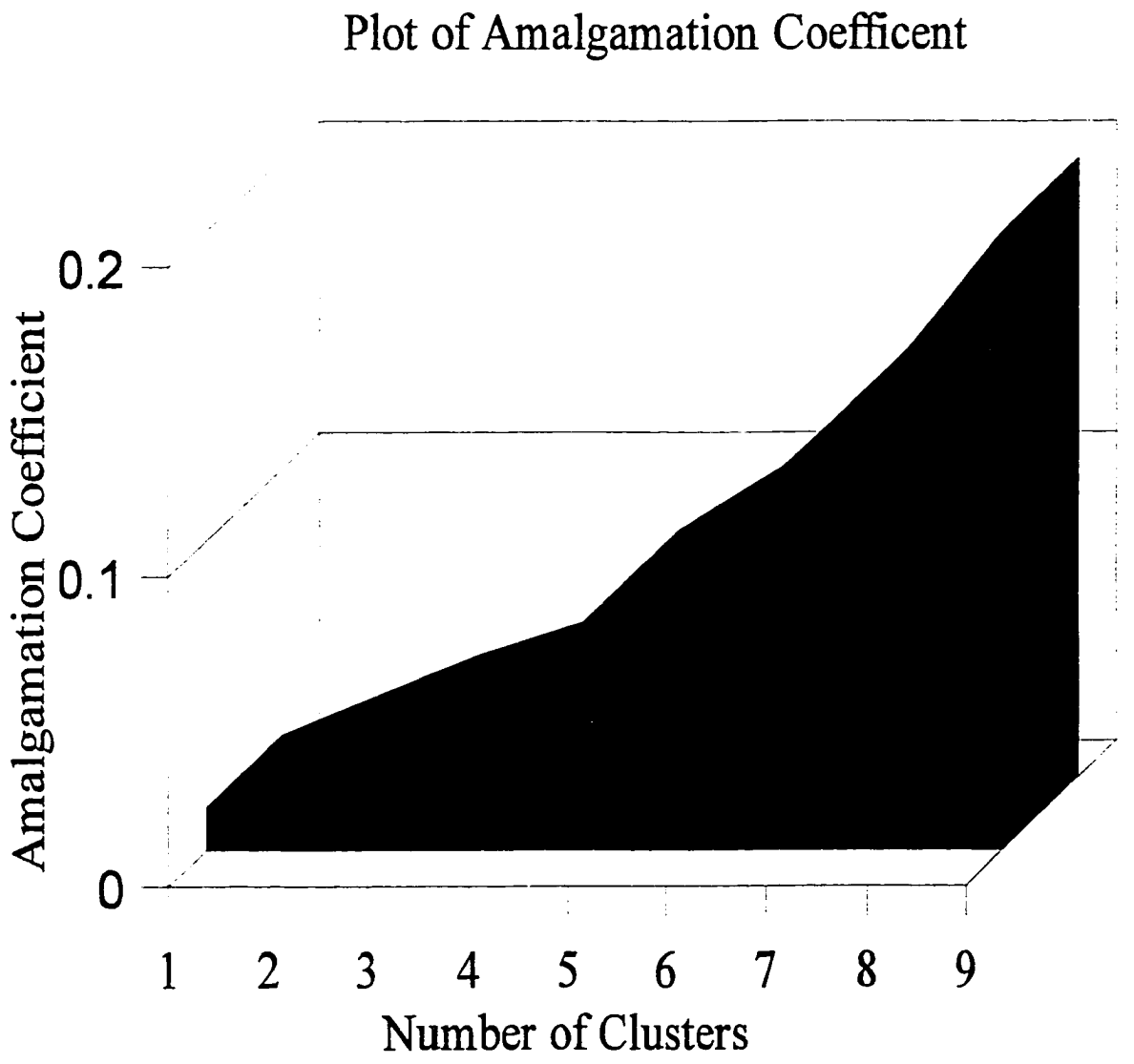
Figure 6

Plot of Amalgamation Coefficients for Cluster Analysis on Relationship Factors.



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Once again, as shown in Table 13, a four cluster solution was found. A second nonhierarchical (K-Means, with an optimization method of assigning cases to clusters) cluster analysis was performed because nonhierarchical analyses typically provide more robust solutions. Nonhierarchical analyses allow cases to be switched from their initial clusters to a better-fitting cluster, a process know as optimizing, or "updating," the cluster centers (Hair, Anderson, Tatham, & Black, 1995). In hierarchical analyses, once a case has been assigned to a cluster center, it cannot be reassigned in a later iteration when alternative, better-fitting clusters may emerge. The hierarchical cluster analysis was conducted first to provide initial cluster centers without which the nonhierarchical method would have had to use random starting points.

Table 13.

Amalgamation Schedule using Ward Method.

Cluster	Coefficient	Coefficient Δ
1	.013889	.013889
2	.027778	.013889
3	.041667	.013889
4	.055556	.013889
5	.075556	.020000
6	.095556	.020000
7	.126852	.031296
8	.160741	.033889
9	.194630	.033889

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Next, using a MANOVA we compared the four cluster groups on the scores on the two factors scales. Means and standard deviations are shown in Table 14. Univariate F tests with Tukey B contrasts were significant for both factor scales.

Subjects in Cluster 1 scored significantly higher on the Comfort with Closeness Factor than the second and fourth clusters and significantly higher on the Comfort with Dependency Factor than all three other clusters. Subjects in this cluster also scored significantly lower than the other three clusters on the Fear of Hurt and Cannot Depend Factors, and significantly lower on the Anxiety about Others Factor than clusters 2 and 3 as well as significantly lower on the Dismissing Factor than clusters 3 and 4. This group appears to have a secure attachment style. Cluster 2 subjects tended to score high on the Fear of Hurt Factor and moderately high on the Anxiety about Other, Cannot Depend, Desire for Closeness, and Desire for Dependency Factors, and low on the Dismissing Factor. Taken together this pattern appears to represent the fearful attachment type. Cluster 3 subjects scored high on the Anxiety about Others, Fear of Hurt, Comfort with Closeness, and Cannot Depend Factors, and moderately on the Comfort with Dependency and Dismissing of Attachment Factors suggesting that this cluster is the anxious-ambivalent/preoccupied group. Relative to the other clusters, cluster 4 subjects score low on the Anxiety about Others, Comfort with Closeness, and Comfort with Dependency Factors, Moderately on the Fear of Hurt, and high on the Cannot Depend and Dismissing of Attachment Factors suggesting that this is the dismissing cluster.

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Table 14.

Attachment Cluster Analysis by Attachment Factors.

Attachment Factor	Secure (N=49)	Fearful (N=34)	Preoc-cupied (N=18)	Dismis-sing (N=19)	F Ratio
Anxiety about Others	2.25a	3.48b	4.89bc	1.90a	36.81***
Fear of hurt	2.26a	4.03b	4.10b	3.63b	33.44***
Comfort with Close	5.49a	4.22b	5.38a	3.83b	17.68***
Can't Depend	1.94a	2.87b	4.97d	3.58c	45.82***
Comfort Depend	5.67a	4.97b	3.62bc	3.14bc	64.13***
Dismissing	3.24a	3.58a	4.42b	5.84bc	44.15***

Note: Means within a row that have different subscripts differ significantly at the .001 level.

Association between Bartholomew self-report attachment styles and cluster based attachment styles.

A comparison of cluster membership and the Bartholomew forced choice self-report measure is given in Table 15. It can be seen that these two methods are strikingly similar. Chi-square analysis yields a highly significant association, χ^2 ($N = 115$, $df = 9$) = 68.30, $p < .0001$, $\Phi = .77$, $p < .0001$.

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Table 15.

Association between Bartholomew self-report attachment styles and cluster based attachment styles.

	Self-Report Based Attachment Style				
Cluster Based Attachment Style	Secure	Fearful	Preoc-cupied	Dismis-sing	Row Total
Secure 48(44%)	**37** (74%)	3 (10%)	7 (6%)	1 (10%)	
	(74%)	(23%)	(30%)	(46%)	(44%)
Fearful 32(21%)	5 (21%)	**13** (54%)	7 (25%)	7 (0%)	
	(10%)	(37%)	(18%)	(0%)	(21%)
Preoccupied 18(20%)	3 (9%)	5 (22%)	**9** (70%)	1 (0%)	
	(6%)	(14%)	(49%)	(0%)	(20%)
Dismissing 17(16%)	5 (12%)	3 (50%)	0 (6%)	**9** (33%)	
	(10%)	(26%)	(3%)	(54%)	(16%)
Column Total	50 (32%)	34 (30%)	23 (28%)	18 (9%)	115(100%)

χ^2 (N = 115, df = 9) = 68.30, $p < .0001$, $\Phi = .77$, $p < .0001$.

Note: Cell entries are n's, row percentages, and column percentages.

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Based on the combined results of the MANOVA analyses and the Chi-Square analyses, it was determined that group 1 corresponded to secure style, group 2 to the fearful style, group 3 to the anxious-ambivalent/preoccupied style, and group 4 to the dismissing style. The cluster analysis resulted in 49 (40.8%) subjects categorized as securely attached, 34 (28.3%) subjects categorized as fearfully avoidant, 18 (15%) as preoccupied, and 19 (15.8%) as having dismissing avoidant attachment. These percentages are roughly equivalent to the distribution typically found in previous research using the four-category scheme (Bartholomew & Horowitz, 1991): 47.9% secure, 21.0% fearful, 15.2% preoccupied, and 15.9% dismissing.

Thus, consistent with Bartholomew's conceptualizations (Bartholomew, 1989), a four category solution approximating the secure, fearful, preoccupied, and dismissing categories of attachment best represented the data, and is justified by the pattern of agglomeration coefficients (both the flattening of the curve and the jump in the coefficients), the dendrogram, and previous research and theory (see Feeney et al., 1994 and Brennan, Clark, & Shaver, 1999, for similar analyses and similar conclusions).

Association between Sex and Attachment Style

As shown in Table 16, a Chi-square analysis was performed to examine for sex differences in attachment style. Previous studies using Bartholomew's measure have found significant sex differences in the distribution of attachment types--typically in the dismissing category, where men are more likely then women to endorse dismissing attachment (Brennan, Shaver, & Tobey, 1991; Brennan & Morris, 1997; Levy et al., 1998; Shaver, Papalia, Clark, Koski, Tidwell, & Nalbone, 1996). Studies using interview

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measures attachment based on Bartholomew's four-category system also find men are disproportionately dismissing (Bartholomew & Horowitz, 1991). Contrary to previous studies using the Bartholomew measure of attachment styles, there was no gender difference in the distribution of attachment types, $\chi^2(6) = 5.72$, *ns*. This finding was mainly due to the high number of dismissing women in the present sample. Previous studies have found dismissing subjects to be almost exclusively made up of men. Of the 51 men, 17 (33.3%) were secure, 18 (35.3%) were fearful, 8 (15.7%) were preoccupied, and 8 (15.7%) were dismissing. Of the 69 women, 32 (46.4%) were secure, 16 (23.2%) were fearful, 10 (14.5%) were preoccupied, and 11 (15.9%) were dismissing.

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Table 16.

Gender Difference in the Distribution of the Bartholomew Measure of Attachment Styles.

Attachment Style	Gender		Row Total
	Male	Female	
Secure	17 (34.7%) (33.3%)	32 (65.3%) (46.4%)	49 (100%)
Fearful	18 (52.9%) (35.3%)	16 (47.1%) (23.2%)	34 (100%)
Preoccupied	8 (44.4%) (15.7%)	10 (55.6%) (14.5%)	18 (100%)
Dismissing	8 (42.1%) (15.7%)	11 (57.9%) (15.9%)	19 (100%)
Column Total	51 (51%) (100.0%)	69 (69%) (100.0%)	120 (100%) (100%)

χ^2(N=120, *df* = 3) = *2.77*, ns, Φ = .15, ns.

Note: Percentages are for each Gender Column.

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Relationship between Attachment-Style Categories and Mental Representations of Mother, Father, and Self

Categorical Analyses. A two-way (attachment style x gender) MANOVA was performed on the entire set of dimensions derived from the descriptions of mother, father, and self. The overall F value for the effect of attachment style was significant ($F(45,250) = 1.82$, $p < .002$). Means from univariate tests are shown in Table 17, with subscripts summarizing the results of Tukey B post-hoc comparisons. As can be seen in the upper portion of the table, which contains results for the mother representation variables, the effect of attachment style was not significant for the content factor variables. However, secure and dismissing avoidant subjects, as compared with both fearful avoidant and anxious-ambivalent/preoccupied subjects, represented their mothers significantly less ambivalently. Regarding structural features, secure and fearful subjects' descriptions were characterized by a higher conceptual level and greater differentiation. The results for father representations, shown in the middle portion of Table 17, were very similar except for the conceptual level variable, which was not significantly higher for secure and fearful subjects. The results for the self variables are shown in the lower portion of the table. These findings are somewhat consistent with the findings from the mother and father representation variables. Again, secure and fearful subjects were characterized by higher levels of differentiation and conceptual complexity, although there was only a trend for the conceptual level score.

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Table 17

Attachment Style Differences in Mental Representations.

Parental Description		Attachment Style				F Ratio		
		Secure (n=49)	Fearful (n=34)	Preoccupied (n=18)	Dismissing (N=19)	Attachment	Gender	Interaction
Mother Variables								
Benevolent	M	4.79	4.57	4.43	4.79	0.88	1.91	1.02
Punitive	M	2.95	2.94	3.27	2.81	0.63	0.01	1.35
Ambivalence	M	1.53	1.90	2.44	1.37	4.26*	7.82***	2.65#
Conceptual Level	M	6.23a	6.18a	6.13a	5.10b	5.86**	2.92	0.29
Differentiation	M	6.95a	6.85a	6.75a	5.95b	5.08**	2.51	1.71
Father Variables								
Benevolent	M	4.47	4.52	4.43	4.63	0.35	0.43	0.81
Punitive	M	3.24	3.36	3.58	3.41	1.39	1.76	1.22
Ambivalence	M	1.86	2.00	2.13	1.67	1.07	1.61	0.76
Conceptual Level	M	5.72	5.83	5.17	5.17	1.39	0.45	2.69

(Table continues)

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(Table continued)

Differentiation	M	6.96a	6.89a	6.06b	5.78b	7.69***	8.09	0.86
Self Variables								
Conceptual Level	M	6.43	6.10	6.06	5.94	0.50	23.85	2.12
Differentiation	M	6.28	6.23	5.94	5.69	2.26#	13.39	1.17
Anxiety	M	1.87a	1.87a	2.53b	1.78a	3.89*	13.69	0.53
Depression	M	1.33	1.44	1.65	1.35	1.79	0.00	1.02
Negative-Positive	M	5.22a	4.83	4.35	5.03	2.94*	0.38	1.54
Self-Critical	M	1.87a	2.11ab	2.71b	1.71a	5.38**	7.35	1.61

Means within a row that have different subscripts differ significantly at the .05 level. *$p < .05$. **$p < .01$. *** $p < .001$.

Dimensional Analyses. Table 18 presents correlational analyses between attachment ratings and representations of mother, father, and self. In general, the correlational results parallel the MANOVA results, although they make even clearer that fearful and dismissing forms of avoidance have different associations with mental representations. As shown, secure attachment was positively correlated with mother benevolence, negatively correlated with mother and father ambivalence, and positively correlated with self representations of agency and relatedness. Fearful avoidance was positively correlated with mother and father punitiveness, father ambivalence, and father differentiation, as well as positively correlated with depression on the self narrative. Preoccupation was positively correlated with mother and father ambivalence and negatively correlated with mother benevolence (a trend). Preoccupation was also positively correlated with depression of the self narrative and negatively correlated with positive ideal. Dismissing avoidance was negatively correlated with mother and father ambivalence and mother differentiation and conceptual level.

Thus, secure and fearful individuals tended toward well differentiated and conceptually complex narrative descriptions of mother, father, and self. In contrast to secure subjects, fearful subjects tended to have more ambivalent and negative representations of self and others. Dismissing individuals tended toward lower levels of both self-other differentiation and conceptual level.

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Table 18

Correlations Between Attachment Style Ratings and Mental Representations of Mother.

	Attachment Style			
Parental Description	Secure	Fearful	Preoccupied	Dismissing
Mother Variables				
Benevolent	.11	-.01	-.14#	.10
Punitive	-.11	.15#	-.08	-.14#
Ambivalence	-.16*	.01	.14#	-.16*
Conceptual Level	.11	.03	-.10	-.12#
Differentiation	.22*	.02	-.08	-.17*
Father Variables				
Benevolent	.18*	-.09	-.12	.10
Punitive	-.11	.15*	-.08	.07
Ambivalence	-.25**	.32*	.21*	-.13#
Conceptual Level	.13#	.06	.07	-.08
Differentiation	.11	.18*	-.06	-.02
Self Variables				
Conceptual Level	.19*	.02	-.11	-.06
Differentiation	.25**	-.05	.04	-.06
Anxiety	-.13	.10	-.14	-.01
Depression	-.29***	.21*	.28**	-.06
Negative-Positive	.19*	.12	-.17#	-.11

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

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Relationship between Attachment-Style Categories and Dimensions Affect Regulation.

Categorical Analyses. A two-way (attachment style x gender) MANOVA was performed on the Affect Regulation Questionnaire Factors and the Affect Regulation Scale rating. The overall F value for the effect of attachment style was significant ($F(18,275) = 1.92$, $p < .001$). Means from univariate tests are shown in Table 19, with subscripts summarizing the results of Tukey B post-hoc comparisons. As shown in the table, the effect of attachment style was significant for the Oral-Somatic, Sex, Drugs, & Violent Fantasies and Behavior, and Self-Injurious Behaviors Factors. Anxious-ambivalent/preoccupied subjects scored significantly higher than the other three attachment styles on the Oral-Somatic and Self-Injurious Behaviors Factor of the ARQ, whereas dismissing avoidant subjects score significantly higher on the Sex, Drugs, and Violent Fantasy and Behaviors Factor. There were significant gender effects for all the ARQ scales except the Self-Injurious Behaviors Factor. In general, women reported higher levels than men did. There were also two significant gender by attachment style interactions–one for self-injurious behaviors and another for developmental level of affect regulation. As shown in Figure 7, anxious-ambivalent women reported using significantly more self-injurious behaviors than the other groups of women. In contrast, anxious-ambivalent men scored similarly to other groups of men. The only significant gender difference within an attachment-style category occurred for the anxious-ambivalent groups: Women scored significantly higher than men on the self-injurious behavior factor.

The interaction between attachment style and gender for developmental level of affect regulation is shown in Figure 8. As can be seen, dismissing and anxious-ambivalent

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women scored significantly lower on the developmental level of affect regulation than secure and fearful women, and dismissing men scored significantly lower than the other groups of men. There were two significant gender differences within an attachment-style category–one within the anxious-ambivalent group and one within the dismissing group. For anxious ambivalents, men scored significantly higher than women on the level of affect regulation. For dismissing avoidants, the pattern was reversed with women scoring higher than men.

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Table 19

Attachment Style Differences in Affect Regulation.

ARQ Factors		Attachment Style				F Ratio		
		Secure (n=49)	Fearful (n=34)	Preoccupied (n=18)	Dismissing (N=19)	Attachment	Gender	Interaction
Activities	M	2.53	2.59	2.48	2.70	0.28	15.29***	0.55
Contemplative	M	2.80	3.02	2.88	3.07	0.89	8.17**	0.14
Oral-Somatic	M	2.29a	2.73ab	2.96b	2.44a	4.17**	25.92***	0.11
Interpersonal	M	2.96	2.92	2.94	2.83	0.12	10.19***	0.23
Sex, Drugs, & Violent Fantasies & Behavior	M	1.82a	2.24b	2.20ab	2.33b	6.83**	5.31**	0.83
Self-Injurious Behaviors	M	1.19a	1.37ab	1.56b	1.31a	2.77*	1.28	3.20*
Affect Regulation Level	M	3.52a	3.35a	2.58b	2.17b	10.47***	0.21	3.64*

Means within a row that have different subscripts differ significantly at the .05 level. *p < .05. **p < .01. *** p < .001.

Figure 7.

Self Injurious Behaviors as a Function of Attachment Style and gender.

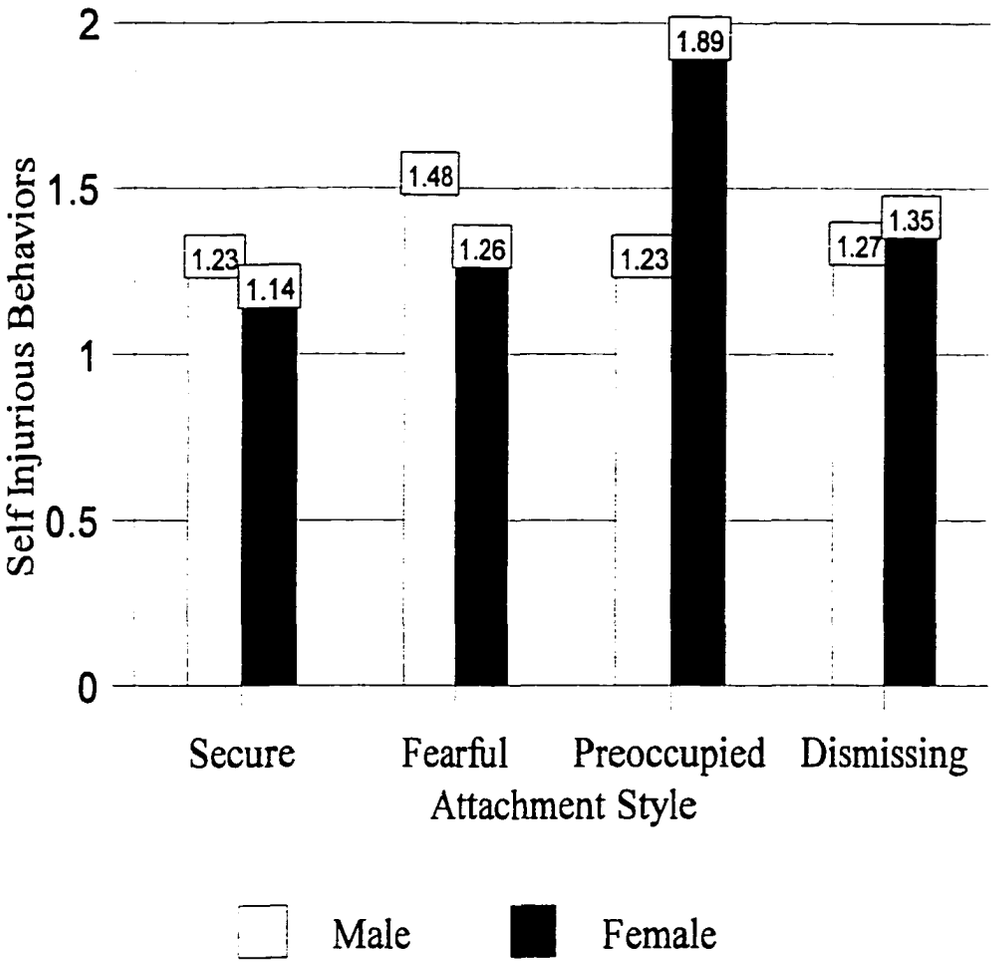

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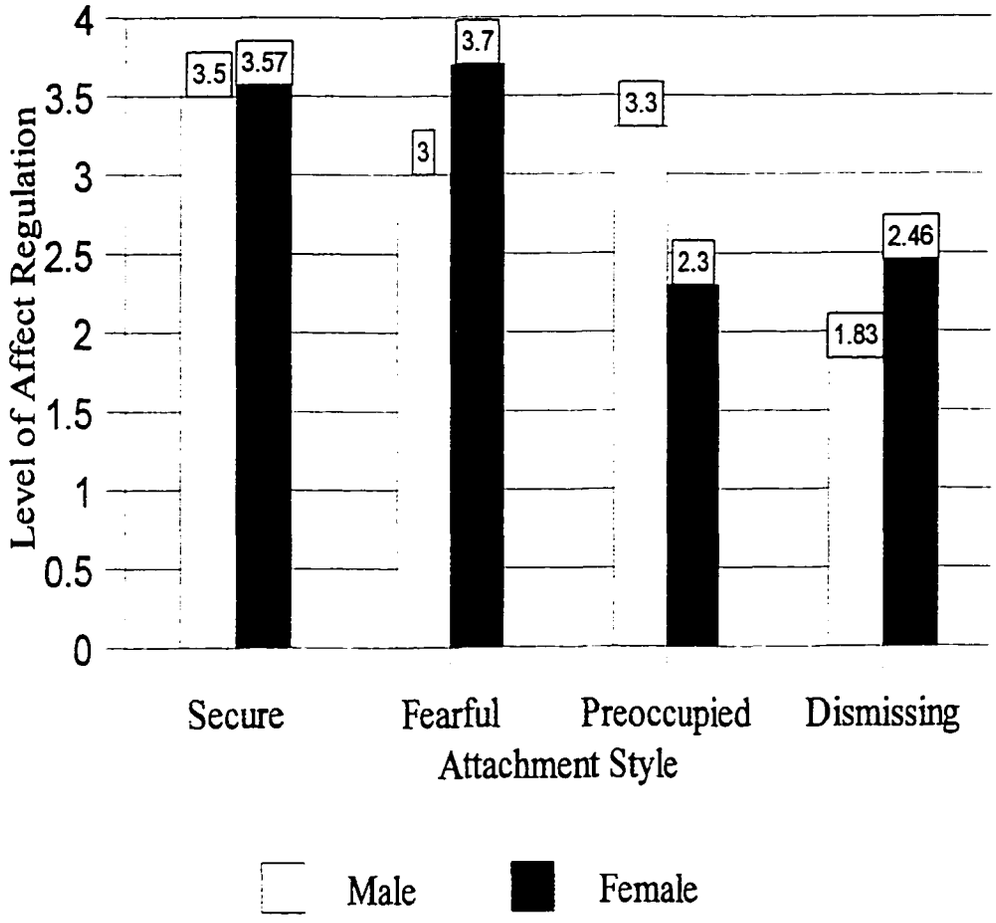
Figure 8.

Developmental Level of Affect Regulation as a Function of Attachment Style and gender.



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Dimensional Analyses. Table 20 presents correlational analyses between attachment ratings and the various measures of affect regulation.

Table 20

Correlations Between Attachment Style Ratings and Affect Regulation Factors.

	Attachment Style			
ARQ Factors	Secure	Fearful	Preoccupied	Dismissing
Activities	.11	.03	-.14#	.04
Contemplative	.17#	.15#	.08	-.13
Oral-Somatic	-.16*	.22*	.18*	-.18*
Interpersonal	.23**	-.03	.02	-.23**
Sex, Drugs, & Violence	-.29***	.21*	.21*	-.02
Self-injurious Behaviors	-.27**	.21*	.25**	.01
Affect Regulation Level	.22*	-.03	-.09	-.14#

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

As can be seen in the table, secure attachment was positively correlated with contemplative and interpersonal methods of affect regulation and negatively correlated with oral/somaticization, the use of sex, drugs, and violent fantasy and behavior, and self injurious behaviors. Both fearful avoidance and preoccupation were positively correlated with oral/somatic and sexual and aggressive fantasy as methods of affect regulation. There were also notable trends between fearful avoidance and contemplative mode of affect regulation. Dismissing avoidance was negatively correlated with oral/somatic and

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interpersonal modes of affect regulation. Security of attachment was also positively correlated with the developmental level of affect regulation based on the narrative descriptions, while there was a negative correlation for dismissive subjects that reached the level of a trend.

Thus, secure attachment was associated with high levels of affect regulation and positive modes of affect regulation, whereas the insecure attachment styles were associated with maladaptive modes of affect regulation.

Relationship between Attachment-Style Categories and Dimensions and Measure of Depression

Categorical Analyses. A two-way (attachment style x gender) MANOVA was performed on the entire set of dimensions derived from the descriptions of mother, father, and self. The overall F value for the effect of attachment style was significant ($F(15, 274) = 4.19$, $p < .001$). Means from univariate tests are shown in Table 21, with subscripts summarizing the results of Tukey B post-hoc comparisons. As shown in table 21, the effect of attachment style was significant for all the DEQ factors and subscales, except the Dependency Factor. There were significant gender effects for the Dependency Factor and the Relatedness subscale. In both cases, women scored higher than men did. There were no significant gender by attachment style interaction.

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Table 21

Attachment Style Differences in DEQ Factors and Subscales.

DEQ Factors & Subscales		Attachment Style				F Ratio		
		Secure (n=49)	Fearful (n=34)	Preoccupied (n=18)	Dismissing (N=19)	Attachment	Gender	Interaction
Dependency	M	-0.68	-0.39	-0.38	-0.95	2.22#	8.82**	0.50
Relatedness	M	35.7	39.4	40.3	35.40	3.23*	6.13*	0.36
Anaclitic Neediness	M	36.71ac	42.33ab	44.13b	34.65c	5.82***	0.62	1.18
Self-Criticism	M	-0.99ac	0.14a	0.56ab	-0.54ac	11.91***	0.15	0.83
Efficacy	M	-0.22ab	-0.70a	-0.47a	0.46b	4.21**	1.25	2.07

Means within a row that have different subscripts differ significantly at the .05 level.

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

Dimensional Analyses. Table 22 presents correlational analyses between attachment ratings and the DEQ factors and subscales.

Table 22

Correlations Between Attachment Style Ratings and DEQ Factors and Subscales.

	Attachment Style			
Parental Description	Secure	Fearful	Preoccupied	Dismissing
Dependency	.04	.25*	.23*	-.33**
Relatedness	-.09	.19*	.01	-.22*
Anaclitic Neediness	-.08	.09	.26**	-.03
Self-Criticism	-.38**	.29**	-.32**	-.07
Efficacy	.20*	-.28**	-.13	.09

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

Note: Correlations between attachment styles and the relatedness and anaclitic neediness scales are partial correlations controlling for shared variance between the two subscales.

Secure attachment was positively correlated with efficacy, and negatively correlated with self-criticism. Both fearful avoidance and preoccupation were positively correlated with dependency, and self-criticism. Fearful avoidance was also negatively correlated with self-efficacy. Partial correlations revealed that fearful avoidance was associated with the relatedness subscale, while preoccupation was associated with anaclitic neediness. Dismissing avoidance was negatively correlated with dependency and relatedness.

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Thus, both the MANOVA and correlational results suggests that security of attachment was positively associated with efficacy and negatively related to all depression measures, whereas fearful avoidant and preoccupied individuals tended toward depression (with fearful avoidant subjects tending toward a higher level of depression and preoccupied subjects toward a less mature and more needy type of depression).

Relationship between attachment, mental representations, affect regulation, and depression.

In order to capture the gist of the relationship between the entire set of variables, three stepwise regression analyses were conducted predicting DEQ anaclitic neediness, relatedness, and self-criticism scores from subject gender, the attachment factors (discussed earlier in the results), affect regulation factors, and representation variables.

The relatedness score was predicted by a combination of two variables: Anxiety about Others and the use of Contemplative/Cognitive modes of affect regulation. As shown in Table 23, the multiple R was .51 ($F(3,125) = 21.77$, $p < .001$). The beta coefficients, all significant at less than $p = .05$, were as follows: Anxiety about Others = .43 and Contemplative/Cognitive modes of affect regulation = .23. Thus, the more related individuals, while depressed and anxious, tended to use more ideation/cognitive approaches to modulate negative affect.

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Table 23

Stepwise Multiple Regression Analysis Predicting Relatedness.

Predictor	Multiple R	β	R^2	R^2 Δ
Anxiety about Other	.45	.43	.21	----
Contemplative	.51	.23	.26	.05

$F(3,125) = 21.77, p < .001$.

The Anaclitic Neediness score was predicted by a combination of three variables: Oral passivity/Somatization, Anxiety about Others, Dismissing of Attachment. As shown in Table 24, the multiple R was .58 (F (3,125) = 21.62, p < .001). The significant beta coefficients were as follows: oral/somatization, .34; anxiety about others, .32; dismissing of attachment, -.21. Thus, the more anaclitic needy individuals tended towards somatization, high anxiety, and enmeshment in relationships.

Table 24

Stepwise Multiple Regression Analysis Predicting Anaclitic Neediness.

Predictor	Multiple R	β	R^2	R^2 Δ
Oral/Somatization	.45	.34	.20	----
Anxiety about Others	.55	.32	.30	.10
Dismissing of Attachment	.58	-.21	.34	.04

$F(3,125) = 21.62, p < .001$.

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The self-criticism score was predicted by a combination of four variables: Cannot Depend (beta = .32), Anxiety about others (beta = .26), Self-injurious Behaviors (beta = .21), and Fear of being Hurt (beta = .18). As shown in Table 25, the multiple R was .70 (F (4,124) = 29.59, $p < .001$). The more self-critical individuals tended to be unable to allow themselves to depend on others, even though they are anxious about possible abandonment by others and the associated hurt that comes with abandonment. They also tend to turn their aggression on themselves.

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Table 25

Stepwise Multiple Regression Analysis Predicting Self-Criticism

Predictor	Multiple R	β	R^2	R^2 Δ
Cannot Depend	.54	.32	.29	----
Anxiety about Other	.64	.26	.41	.12
Self-Injurious Behaviors	.68	.21	.46	.05
Fear of Hurt	.70	.18	.49	.03

$F(4,124) = 29.59, p < .001$.

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Chapter VI

Discussion

The findings from the present study are generally consistent with those of previous studies investigating the relationship between mental representations and attachment styles (Hibbard & White, 1999; Levy et al., 1998; Mikulincer, 1995), as well as studies investigating the relations among attachment and affect regulation (Brennan & Shaver, 1995; Cooper, Shaver, & Collins, 1998) and depression (Carnelley, Pietromonaco, & Jaffe, 1994; Hammen, Burge, Daley, Davila, Paley, & Randolph, 1995; Hazan & Shaver, 1990; Murphy & Bates, 1997; Kelly, Levy, & Blatt, 1996; Pettem, West, Mahoney, & Keller, 1993; Roberts, Gotlib, & Kassel, 1996; Styron & Janoff-Bulman, 1997; West, Rose, Verhoef, Spreng, & Bobey, 1998; Zuroff & Fitzpatrick, 1995). The findings from the present study extend previous research by demonstrating that the structure of both mental representations of self and others as well as the nature of affective experience itself are related to ways of modulating affect, at least as assessed by self-report. Moreover, in the present study it was shown that self reported modes of affect regulation mediate the relationship between attachment and the experience of dependent and self-critical depressions.

Attachment Style and Mental Representations.

Based on attachment theory and previous research, it was expected that securely attached subjects' representations would be more positive in content and more conceptually complex and differentiated in structure than the representations of insecure subjects. As predicted and consistent with past research, both secure and fearful subjects

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had conceptually complex, highly differentiated representations of both self and others. However, it was also expected that the mental representations of secure subjects would be more benevolent, less punitive, and contain more scorable attributes. These expectations were not supported. Contrary to previous findings there were no significant differences between attachment groups in terms of the content of mental representations; however, the means were generally in the predicted direction.

Among the insecurely attached groups, it was hypothesized that the narratives of fearful avoidant individuals would be generally more differentiated and integrated than descriptions written by dismissive avoidant individuals. This expectation was generally supported--fearful avoidant individuals scored significantly higher than dismissing avoidant individuals on the following: mother and father self-other differentiation, mother conceptual level, and developmental level of affect regulation. In contrast to findings from Muklincer (1995), there were no signficant differences with regard to self representations; however, the means were in the hypothesized directions. Understanding why dismissing avoidance but not fearful avoidance is associated with relatively low-level conceptualizations of parents is an important topic for further study. One possibility is that the repressive, minimizing strategies employed by dismissing avoidant individuals impede their ability to think clearly, extensively, and empathically about their parents, resulting in less conceptually sophisticated mental representations of them.

Attachment Style and Affect Regulation

Affect regulation was associated with both attachment and depression; however, findings were mixed. As expected, securely attached subjects reported that they utilized

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oral-somatization, sex, drugs, and violent fantasies and behaviors, and self injurious behaviors less frequently than insecure subjects. Specifically, differences include preoccupied subjects' use of oral-somatization and self injurious behaviors and dismissive subjects' use of mood-altering substances and violent fantasies. Contrary to expectations there were no differences between the groups in employing action/activities, cognitive-contemplative, or interpersonal modes of affect regulation. There are a number of possible explanations for these lack of differences. First, the base rate for the behaviors represented in these three factors may be so common--regardless of attachment style. Therefore it is difficult to find differences between the two groups. Second, Schaffer (1993) as well as Kogan (1997) note that these three scales constitute healthy or adaptive modes of affect regulation. Consistent with this interpretation, all three of these affect regulation scales were significantly positively correlated with efficacy. Therefore, attachment categories may be better differentiated by the use of maladaptive modes of affect regulation rather than by the use of adaptive mechanisms. Third, differences may exist in these three domains, however, these differences can not be pick up through self-report measures. These ideas are discussed in more detail below.

Action/Activity and Contemplative/Cognitive Modes. It was hypothesized that there would be a significant difference between attachment types on the Action/Activity and Contemplative/Cognitive Factors: specifically dismissing avoidant subjects were expected to score higher on the Action/Activity Factor than secure subjects and preoccupied subjects to score significantly lower than the other three types on the Contemplative/Cognitive Factor. With regard to the findings with the Action/Activity

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Factor, it was expected that dismissing individuals would be more likely to use action and activity as a distracting strategy (Mikulincer et al., 1993). As for the Contemplative/Cognitive Factor, it was expected that dismissive avoidant individuals would use a variety of cognitive or ideational strategies to objectify feelings (e.g., defenses such as rationalization, denial or idealization). These two hypotheses were not supported.

Interpersonal Modes. It was expected that both secure and preoccupied individuals would seek social support in times of need to regulate affect. Past research (Mikulincer & Florian, 1995; Ognibene & Collins, 1998) indicates that both secure and preoccupied subjects seek out social support from friends and families, particularly in times of stress. In contrast, given that dismissing avoidant individuals avoid intimate contact and view others negatively, it was expected that they would be less likely to use interpersonal modes to regulate negative affect. Previous research has shown that avoidant individuals have less access to social support (Wallace & Vaux, 1993) and less ability to accept available support and care (Simpson, Rholes, & Nelligan, 1992). In one study, for example, securely attached women were found to use their partners as a source of comfort and reassurance in an anxiety-provoking situation, whereas avoidant women withdrew from their partners both emotionally and physically (Simpson et al.1992). Similarly, Mikulincer and colleagues (Mikulincer et al., 1993) found that securely attached adults used more support-seeking strategies in the aftermath of the Gulf War. In contrast to secure individuals, preoccupied individuals sought social support; however, similar to anxious-ambivalent children, they did not feel soothed by such support. In the present

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study; however, there was no main effect for attachment style on this factor. Ognibene & Collins (1998) also failed to find a difference on the self-report use of distancing as a coping mechanisms between attachment types. One reason for the discrepancy between the present findings and previous findings such as those of Simpson and Mikulincer, which have found an association between social support seeking and attachment style, may be that these previous studies have relied on observational data coded in an actual distressing situation (which is analogous to the strange situation), whereas the present study relies on self-report data. For insecure individuals there may be a discrepancy between what they report and their actual behavior. Thus, distressed secure and preoccupied individuals may use interpersonal modes of affect regulation while dismissive avoidant individuals rely less on interpersonal modes and more on cognitive and action oriented modes; however, in contrast to preoccupied and secure individual they are unable to report this. Support for this hypothesis is drawn from the findings of Bartholomew and Horowitz (1991) and Kobak and Sceery (1988). Bartholomew and Horowitz found that although dismissing avoidant subjects rated themselves high in self-esteem and social self-confidence, their peers saw them as hostile and socially autocratic. Similarly, Kobak and Sceery, using the Adult attachment Interview, found that avoidant subjects rated themselves as socially adept and psychologically sound, whereas their peers viewed them as more hostile and less ego-resilient.

Oral-Somatic Modes. The present study found that anxious-ambivalent/preoccupied subjects scored significantly higher than the other three attachment styles on the Oral-Somatic Factor of the ARQ. Items that load on the Oral-

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Somatic Factor include binging, overeating, headaches, stomach aches, and shopping. This finding is consistent with previous research which has found that anxious-ambivalent subjects report more physical complaints, somatic symptoms, and visits to health professions (Carnelley et al., 1994; Feeney & Ryan, 1994; Hazan & Shaver, 1990). Clinicians such as Schur (1955), Krystal (1988,1997), and McDougall (1974) have discussed the relationship between deficits in the capacity to represent feeling states and somatization. For Krystal desomatization occurs as affective development proceeds. Desomatization is the decoding of emotional experience from physical enactment. Winnicott (1949,1963, 1971) linked maternal sensitivity with the development of symbolic thinking and affective experience. He believed that the infant's somatic and emotional states were rendered coherent and comprehensible through the mother's sensitive response to these states. Similarly Traub-Werner (1990) suggested that deficits in the capacity for symbolic representation are tied to perception and expression of affect states that arise when the child's somatic experience are invalidated or not made sense of by the caregiver; the integrity of the bodily experience is not symbolically transformed into thoughts and feelings, and not integrated into self representations. Affects that lack symbolic or representational elaboration are experienced as diffuse, vague, lacking specific meaning and are thus prone to be experienced as "unbridled attacks" by the body. The findings of the present study are not a direct test of these ideas; however, they are consistent with them. For example, although the degree of differentiation and conceptual complexity of representations of self and others for anxious-ambivalent subjects was not significantly lower than secure and fearful subjects (except for father differentiation), they did score

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significantly lower with regard to the developmental level of their representation of affect regulation. These findings suggest that anxious-ambivalent subjects are unable to achieve the same level of representational complexity within the affective realm as they are with regard to representations of self and others.

Substance Use, Sexual and Violent Fantasies and Behavior. The present study's finding regarding the relationship between dismissive attachment and the Substance Use, Sexual and Violent Fantasies and Behavior Factor is consistent with prior theorizing that ties substance abuse to affect regulations deficits (Krystal & Raskin, 1970; Khantzian, 1985). These theorists have specifically implicated the role of impaired representations of self and others as leading to deficits in the capacity for self-care that create the need for substance use. Additionally, two studies have shown that insecure attachment is related to substance use (Brennan & Shaver, 1995; Senchak & Leonard, 1992). Senchak and Leonard found that men with avoidant attachment styles were more likely to be heavy drinkers than men with a secure or anxious-ambivalent attachment styles. Likewise, Brennan and Shaver(1995) also showed that insecurely attached students, especially those with avoidant attachment, more highly rely on alcohol consumption to regulate negative affects.

These studies, coupled with the findings from the present study, suggest substance use may result from failures in internal affect regulation. For those with insufficient emotion regulatory capacities, mood-altering substances, such as alcohol, may extend an seductive refuge from negative mood states. Avoidant individuals employ alcohol and drugs to stifle or minimize negative feelings in order to distance themselves from

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emotional experience. In this way, avoidantly attached individuals resemble Josephs and Steele's (1990) "alcohol myopic" subjects who likewise drink to induce a state of cognitive and affective impairment, the sequelae of which include inflated self-evaluation, blocked negative memories, and reduced anxiety and depression. It is important to note, however, this does not imply that these individuals are neither anxious nor depressed at some level. Often they do things that indicate a tremendous amount of unacknowledged anxiety or sadness.

This finding is also consistent with those of Shedler and Block (1990). Shedler and Block found a systematic relationship between patterns of drug use at age 18, personality as assessed by Q-sort at age 18, personality as assessed in childhood at ages 7 and 11, and the quality of parenting assessed at age five. Subjects who occasionally experimented with marijuana were the most well-adjusted in the sample, compared with those who never tried the drug, who were described as anxious, emotionally constricted, and lacking social skills. Those who frequently used marijuana, who were observed to be alienated and impulsive. Shedler and Block (1990) found that frequent substance users were significantly more interpersonally alienated, emotionally withdrawn, and manifestly unhappy, and expressed maladjustments through undercontrolled behavior. Similar to dismissing avoidant subjects, frequent substance users were unable to invest in or derive pleasure from meaningful personal relationships and were hostile, distrustful, and emotionally withdrawn in their relationships. Consistent with attachment theory, Shedler and Block were able to predict frequent substance use from the quality of the child-mother interactions at age 5 years. Mothers of both abstainers and abusers were previously rated

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as relatively cold and unresponsive.

Of particular interest is the findings concerning sexual behavior. First, the fact that sexual behavior loaded on the sex, drugs, and violent fantasy and behavior factor is interesting in itself. One might have expected that sexual behavior would have loaded on the interpersonal factor (Brennan & Shaver, 1995). However, past research has shown that securely attached individuals use sexual behaviors as an attempt to achieve physical and psychological intimacy. In contrast, this same research indicates that dismissing subjects use sexual behavior as a way of regulating affect and "getting back" at others. Anxious ambivalent individuals often use sexual behavior as an a way of coercing or manipulating others. In an investigation of the relationship between adult attachment and sexual behavior, Brennan and Shaver (1995) found that while secure individuals employed relatively conservative sexual practices (e.g., few sexual partners, the need for emotional closeness in order to have sexual activity), avoidant subjects, particularly avoidant men were more likely to engage in casual sexual encounters with multiple partners. Feeney and colleagues (Feeney et al., 1993) also examined the sexual behavior of college students in relation to attachment, and likewise, they found that avoidant individuals were significantly more accepting of uncommitted sex than secure individuals. Diary data further suggested that avoidant individuals were the most likely to have sexual relationships with acquaintances. Among those involved in romantic relationships, secure individuals were more likely than either avoidant or ambivalent participants to have sex with their romantic partners. These findings suggest that for secure individuals, sex seems more likely to be an expression of intimacy while for avoidant individuals, sex appears more likely to be a

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way of maintaining emotional distance from partners. Along these lines, Brennan, Clark, and Shaver (1999) found that following sex, secure individuals were also more likely than insecure individuals to experience positive emotions, and less likely to experience negative emotions. Taken together, these findings along with those of the present study indicate that avoidantly attached individuals use sex to regulate negative affect rather than to achieve and express intimacy. The use of sex by avoidant subjects is similar to the way frequent substance users use alcohol and drugs.

Self Injurious Behaviors. In contrast to Schaffer's original study (1993), which found five factors of modes of affect regulation, the present study identified a sixth factor: the use of self-injurious or self-destructive behaviors to regulate affect. These behaviors included making parasuicidal attempts, misusing prescription medication, self-cutting, using diuretics/purging, and engaging in reckless behavior. In the present study anxious-ambivalent/preoccupied subjects, especially anxious-ambivalent women, were significantly more likely to engage in these types of behaviors.

Although, the study subjects in the present study are from a non-clinical sample, these type of self harm behaviors are central aspects of borderline personality patholgy (DSM-IV; APA, 1994). Both the DSM and clinical theorists posit that these self injurious/destructive behaviors derive from a basic affective instability that is often a response to identity diffusion and difficulties in interpersonal relationships. In terms of specific dynamics, borderline patients often employ self-destructive behaviors as a way of manipulating significant others and garnering attention (Leibenluft, Gardner, & Cowdry, 1987). Additionally, numerous clinical investigators have noted that self-mutilation is

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often used as a way of relieving anxiety/tension (Kemperman, Russ, & Shearin, 1997; Leibenluft, Gardner, & Cowdry, 1987; Russ, Shearin, Clarkin, Harrison, et al., 1993; Schaffer, Carroll, & Abramowitz, 1982; Simeon, Stanley, Frances, Mann, et al., 1992). Binging and the use of diuretics/purging have similarly been tied to affect regulation. For example, Shearin and co-workers' (Shearin, Clarkin, Russ, Hull, & Smith, 1994) findings suggest that a common dynamic of the binging and purging cycle in borderline patients centers around needing to binge in order to counter feelings of being psychologically empty and alone, followed by the need to purge due to feeling intruded upon by a sense of a significant other.

The present findings suggest an association between anxious-ambivalent/preoccupied attachment and borderline personality disorder, in that they identify behaviors associated with borderline personality disorder. This finding is consistent with prior clinical theorizing and research (Shaver & Rubinstein, 1980, Megles & Swartz, 1989; Sperling, Sharp & Fishler, 1991) which has connected anxious-ambivalent/preoccupied attachment with borderline personality disorder. In addition, a number of empirical studies, using both interview and/or self-report attachment measures, have recently linked borderline disorders to preoccupied attachment (Adam, 1994; Adam, Keller, & West, 1995; Diamond & Doane, 1994; Fonagy et al, 1996; Levy, 1993; Patrick, Hobson, Castle, Howard, & Maughan, 1994; Sack, Sperling, Fagen, & Foelsch, 1996; Rosenstein & Horowitz, 1996; Saltzman, Saltzman & Wolfson, 1997; Sperling, Sharp & Fishler, 991; West, Keller, Links & Patrick, 1993). Additionally, numerous news reports have noted that self destructive behaviors are on the rise among college age men and

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women. The findings from the present study suggest that this behavior may be related to anxious-ambivalent/preoccupied attachment.

Attachment Style and Depression.

Consistent with Bowlby's hypotheses, a number of studies with children, adolescents, and adults have found that insecure attachment is related to increased levels of depression (Carnelley, Pietromonaco, & Jaffe, 1994; Hammen, Burge, Daley, Davila, Paley, & Randolph, 1995; Hazan & Shaver, 1990; Garber, Cohen, Bacon, Egeland, & Sroufe, 1985; Murphy & Bates, 1997; Kelly, Levy, & Blatt, 1996; Pettem, West, Mahoney, & Keller, 1993; Roberts, Gotlib, & Kassel, 1996; Styron & Janoff-Bulman, 1997; West, Rose, Verhoef, Spreng, & Bobey, 1998; Zuroff & Fitzpatrick, 1995). Some of these studies have tied different patterns of attachment to subtypes of depression (Murphy & Bates, 1997 Kelly, Levy, & Blatt, 1996; Zuroff & Fitzpatrick, 1995).

The findings from the present study generally are consistent with previous research and support theoretical expectations. Secure attachment, as hypothesized, was negatively correlated with self-criticism and positively correlated with efficacy. Fearful avoidant attachment, as expected, was related to self-criticism and dependency. Preoccupied attachment was also related to both dependency and self-criticism. Also consistent with expectations, both fearful avoidant and preoccupied attachment were negatively related to efficacy. Dismissing avoidant attachment was unrelated to self-criticism, and as expected, was counterdependent and negatively related to dependency. Blatt and colleagues (Behrends & Blatt, 1985; Blatt, 1974; Blatt & Homann, 1992) posit, as does Bowlby, that the relation between insecure attachment and vulnerability to depression is rooted in

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early development. Inconsistent, neglectful, punitive, and judgmental parenting practices result in impaired mental representation of self and others, leaving these individuals vulnerable to dependent and /or self-critical depression. The present study was cross-sectional, however, and therefore can only document the associations between dependent and self-critical depression and adult attachment styles, rather than etiology. There may be additional mechanisms involved in the subsequent development of depression in insecurely attached individuals. For instance, the alienation and excessive self-reliance of dismissing and fearful avoidant individuals may result in less access to social support (Wallace & Vaux, 1993), less ability to accept available support and care (Simpson, Rholes, & Nelligan, 1992), and a lower incidence of seeking treatment for depressive feelings and/or symptoms. Indeed, in this manner avoidant individuals may confirm and perpetuate their expectations that others are unavailable and unable to help (Swann, Wentzlaff, Krull, & Pelham, 1992) and thus, increase their vulnerability to depression. Preoccupied individuals, on the other hand, are especially vulnerable to dysphoria in response to relationship difficulties, especially, the dissolution of close relationships. The preoccupied individual has a tendency to make excessive demands on others and to vacillate between anxious clinginess and and angry ambivalence when these demands are not met. This frustration may results in feelings of intense loneliness, emptiness and depression (Hazan & Shaver, 1990).

The most interesting finding regarding the association of attachment style to depression concerns the findings with the newly developed DEQ subscales. First, while fearful and preoccupied subjects scored higher on the relational subscale than secure and

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dismissive subjects, the difference was not significant. However, on the anaclitic dependency subscale, secure and dismissing subjects scored similarly. Dismissive subjects scored significantly lower than fearful subjects, while secure subjects did not differ from fearful subjects. Both dismissing and secure subjects scored significantly lower than anxious-ambivalent/preoccupied subjects; fearful subjects scores did not significantly differ from those of anxious-ambivalent subjects. Thus, anxious-ambivalent/preoccupied subjects scored significantly higher on anaclitic neediness than did secure and dismissive subjects and while fearful subjects scored higher than secure subjects, the difference was not significant. While this finding needs to be replicated, it is highly congruent with the theorizing of Blatt and others with regard to anxious-ambivalent attachment (Blatt, 1974; Blatt & Homman, 1992; Levine & Tuber, 1993).

Summary of Findings Regarding Attachment, Affect Regulation, and Depression.

In sum, securely attached individuals are characterized by the use of interpersonal, contemplative, and action oriented modes of regulating affect. Fearfully attached individuals employ interpersonal, action oriented, contemplative, somatic, and sex, drugs, and violent fantasy and behaviors to regulate affect. Preoccupied individuals are characterized by interpersonal, contemplative, somatic and self-injury oriented modes of regulating affect. And finally, dismissing attachment is characterized by interpersonal, contemplative and action oriented modes of regulating affect as well as sex, drugs, and violent fantasies and behaviors. Moreover, secure and fearful attachment was associated with higher developmental levels of affect regulation than anxious-ambivalent and dismissing individuals. These findings suggest that in terms of modes of affect regulation,

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secure and insecure subjects are differentiated not in their self-reported use of adaptive modes of affect regulation (interpersonal, contemplative, and action), but instead their report of maladaptive modes (somatization, self-injurious behaviors, and sex, drugs, and violent fantasy and behavior). These findings are consistent with studies on defense mechanisms which indicate psychiatrically disturbed individuals, like less disturbed individuals use higher level defenses, but can be differentiated in their use primitive defenses.

The analyses of the present study suggest that interactions between attachment organization and affect regulation strategies may result in depression. Differentiated and integrated representations of self and other appear to be important to a general pattern of affect and self-regulation. These differences in the structure and content of mental representation in the various attachment styles in young adults parallel findings reported with infants, children, and adolescents (Kobak & Sceery, 1985; Main, 1990; Matas et al., 1978; 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 either anxious-ambivalent or avoidant individuals. In addition, these results are consistent with research in social cognition concerning the relation of representations to affect regulation (e.g., Dodge, Price, Bachorowaski, & Newman, 1990; Higgins et al., 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

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to be strongly related to patterns of affect and self regulation. However, an important unresolved issue in interpreting the data concerns the direction of causation between mental representations, affect regulation, and depression.

Additional Important Issues.

There are four other issues that emerged from the findings that warrant discussion. The first concerns the importance of representations of both parents. The second concenrs the difference between men and women on the affect regulation measure. The third concerns differences between men and women in the distribution of attachment styles. The fourth issue concerns the differentiation between fearful and dismissing avoidance.

Importance of Father as an Attachment Figure. A number of prior studies of college students have found that maternal characteristics are stronger predictors of attachment style than paternal characteristics. Main, Kaplan, & Cassidy (1985) found a correlation of .76 ($p < .001$) between security of attachment to mother at one year and security of attachment at six years of age. The correlation between security of attachment to the father at 18 months and at age six years was .30 ($p < .05$). In contrast to the usual emphasis on the mother as the central figure in attachment and object relations theories, the present findings, consistent with those of other investigators (Lamb, 1982; Phares, 1992), indicate important associations between attachment styles and representations of both parents. In the present study, representations of fathers were generally as well differentiated and conceptually complex as representations of mothers. In addition, in the present study, there were important differences between attachment style with regard to father differentiation. Secure and fearful individuals' representations of fathers were more

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highly differentiated than those of preoccupied and dismissing individuals. This finding highlights the importance of the father's role as an discussed the role of the father as an alternate attachment figure who supports individuation (Loewald, 1960). The present findings are also consistent with the view that from early childhood through adolescence, both parents play central roles (Blatt, 1990).

Sex Differences in Affect Regulation. The second issue concerns sex differences in affect regulation. In the present study, men and women differed on all ASQ factors except self-injurious behaviors. In each case women scored higher. In addition, although there was no sex difference found on the self-injurious behaviors factor, within the anxious-ambivalent attachment type, women score significantly higher than men. These findings are consistent with previous research which has found, with few exceptions, that men and women differ in their experience of emotion in terms of the frequency, intensity, and in their ability to express emotion and recognize emotion in others (for reviews, see Ashmore, 1990; Brody, 1985; Brody & Hall, 1993). Women report experiencing emotions with a greater frequency (Johnson & Shulman, 1988; Sprecher & Sedikides, 1993), greater intensity (Fujita, Harper, & Wiens, 1980), and report greater expressiveness than men (Gross & John, 1995; Kring, Smith, & Neale, 1994) and show more extreme physiological responses on electromyograph measurement (Grossman & Wood, 1993). Also of note, there was no gender difference found with regard to the developmental level of affect regulation. This finding suggests that although women may self report more emotional expressiveness and frequent and intense feelings, men are able to organize their emotional experience at similar developmental levels.

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Sex Differences in Attachment Style. The third issue concerns sex differences in attachment style. Many of the previous studies using Bartholomew's measure have found significant sex differences in the distribution of attachment types--typically in the dismissing category, where men are more likely than women to endorse dismissing attachment (Brennan, Shaver, & Tobey, 1991; Brennan & Morris, 1997; Coe, Dalenberg, Aransky, & Reto, 1995; Duggan & Brennan, 1994; Guerrero, 1998; Levy et al., 1998; Ognibene & Collins, 1998; Shaver, Papalia, Clark, Koski, Tidwell, & Nalbone, 1996). Attachment studies using interview measures based on Bartholomew's four-category system also find men are disproportionately dismissing (Bartholomew & Horowitz, 1991). In the present study, contrary to previous studies using the Bartholomew measure of attachment styles, there was no gender difference in the distribution of attachment types. This finding was mainly due to the high number of dismissing women in the present sample. Previous studies have found dismissing subjects to be almost exclusively made up of men. However, three other studies using Bartholomew's relationship questionnaire have reported not finding sex differences in the distribution of attachment style (Kunce & Shaver, 1994; Levy & Kelly, in review; Zuroff & Fitzpatrick, 1995). None of the three studies discuss possible reasons for failing to find the more typical sex differences.

The Zuroff and Fitzpatrick sample was a predominately Caucasian Canadian sample at McGill University and the reasons for the absence of sex differences in their sample is not clear. However, Levy and Kelly do note that their sample was predominately urban-inner city, African-America and Latino college students of lower socioeconomic status. Some African-American writers have noted that due to pervasive

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racism and both subtle and overt societal roadblocks, African-American men interested in advanced study often have to become almost exclusively focused on their studies to the exclusion of relationships in order to complete their goals (Jenkins, 1995; West, 1993). These kinds of pressures may be similar, or in some cases more intense for minority women, and may explain the lack of sex differences in the Levy and Kelly study. That is, poor minority college women may more likely be dismissive of attachment relationships in an effort to focus on their academic and career goals. In contrast to Levy and Kelly's sample, the sample in the present study is predominately Caucasian and working middle-class (as was the Kunce & Shaver study) and it is not clear what the reason is for the absence of the typical sex differences that are found using the Bartholomew measures. The present sample is very similar demographically to many of the other studies that have found sex differences (Brennan et al., 1991; Brennan & Morris, 1997; Coe, Dalenberg, Aransky, & Reto, 1995; Duggan & Brennan, 1994; Guerrero, 1998; Levy et al., 1998; Ognibene & Collins, 1998; Shaver et al., 1996).

It seems possible that the lack of sex differences in the present study might reflect ongoing change in societal sex roles, where women, who are less constrained by pressures to conform to traditional gender role norms of femininity, are moving toward more masculine gender roles, which stress increased independence, suppression of emotions, and a de-emphasis on close relationships. However, the fact that other studies collecting data during the same time period found sex differences somewhat mitigates against this interpretation.

The most important question raised by the relatively high number of dismissing

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women concerns whether or not the present sample represents an anomaly that undermines the confidence of the findings in general. However, given the overall consistency of the present findings with previous studies coupled with the consistency between the study hypotheses and pattern of results suggest the sample is appropriate and the findings are valid. It is also important to reiterate that other studies have also failed to find sex differences in the distribution of attachment types.

In addition, it is interesting to note that Bowlby's (1973, 1980, 1969/1982) writings on attachment theory did not include gender differences, suggesting that both men and women have equal likelihood of developing secure and insecure working models and attachment styles. Consistent with Bowlby's writings, attachment research has invariably failed to find gender differences in attachment classifications for infants or very young children (Ainsworth et al., 1978; Bretherton, 1985). Likewise research with adults using both the Adult Attachment Interview and Hazan and Shaver's three category measure consistently find no gender differences in the distribution of attachment types.

Fearful and Dismissive Avoidance. The third issue concerns the importance of differentiating fearful from dismissing avoidance. As mentioned earlier, Bartholomew (1989; 1990; Bartholomew & Horowitz, 1991) noticed an incongruence between Main's and Hazan and Shaver's conceptions of avoidance. Bartholomew's key insight was that Main's prototype of the adult avoidant style (assessed in the context of parenting) is more defensive, denial-oriented, and overtly unemotional than Hazan and Shaver's avoidant romantic attachment prototype, which seems more vulnerable, conscious of emotional pain, and "fearful." Thus, Main's avoidant style is predominately dismissing, whereas

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Hazan and Shaver's avoidant style is predominately fearful. While both dismissing and fearful individuals are behaviorally avoidant in intimate relationships, fearfully attached individuals avoid intimacy because they consciously fear being hurt, whereas dismissing individuals do so because they devalue relationships. The findings of the present study support Bartholomew's (1990) distinction between two kinds of avoidant attachment, fearful and dismissing. However, not only do these individuals' models of self differ in positivity as noted by Bartholomew (1990), they differ in the structure of their representations of self and others as well. This difference appears to be more important than the differences in positive-negative valence.

Previous research has portrayed fearful-avoidants as opposite to secures on many dimensions, leading them to be viewed as the least secure of the three insecure groups (e.g., Shaver & Hazan, 1993). Moreover, fearful-avoidants are often seen as the most distressed and least healthy. (They are the least trusting, the least assertive, and so on.) Along these lines, some investigators have tied the fearful avoidant style, with their mixture of avoidant and anxious styles to Crittenden's (1988) A/C infant attachment style (Brennan, Shaver, & Tobey, 1991), while others have related the fearful avoidant style to Main's unresolved style in adulthood (Crowell, Treboux, & Waters, 1999; Holtzworth-Monroe, Stuart, & Hutchinson, 1997). However, others have suggested that the fearful avoidant style represents a healthier level of avoidant attachment (Bartholomew & Horowitz, 1991; Levy et al., 1998). These investigators have noted fearful avoidant attachment, in contrast to dismissive avoidance, is characterized by the desire for close relationships and suggest that this desire for relatedness is sign of psychological health.

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Bartholomew and Horowitz (1991) also note that although fearful subjects generally rated themselves negatively on a number of dimensions, their peers saw them more positively. In contrast, dismissing avoidant individuals, like secure individuals, hold positive views of the self, and studies have found that they show similarly high levels self-esteem as secure individuals; however, their peers perceived them as hostile and autocratic. Bartholomew & Horowitz (1991) note that although fearful subjects, like dismissing subjects, report parental rejection (low parental acceptance and involvement), they are no more likely to idealize their parents or be incoherent during an attachment interview than secure subjects. Likewise, Levy et al. (1998) also found that fearful avoidant subjects have complex, well differentiated and integrated representations. Levy et al (1998) suggested that fearful avoidants may be analogous to "earned secures" (Pearson, Cohn, Cowen, & Cowen, 1994; earned secures describe difficult early relationships with parents but are also highly coherent). Support for Levy's hypothesis comes from a recent comparison of 30 bereaved women that had AAI and Bartholomew scoring systems coded by well-trained and independent sets of AAI and Bartholomew coders. There were five disagreements--all five cases involved subjects coded as secure on the AAI and coded as fearful on Bartholomew's interview. Clearly this issue needs further investigation. It may be that the fearful group comprises individuals of various levels of functioning ranging from those who are unresolved to those who are earned secure. In the present study, fearful avoidant subjects endorsed levels of depression and distress similar to that of anxious-ambivalent subjects; however, in terms of degree of differentiation, conceptual complexity, and developmental level of affect regulation, fearful subjects were more like secure subjects.

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With regard to dismissing avoidance, theorists have suggested that the high self-esteem of the dismissing-avoidant individuals derives more from their ability to inhibit, deny, or ignore negative feelings about themselves than from true feelings of self-worth (Bartholomew & Horowitz, 1991; Cassidy & Kobak, 1990; Fraley, Davis, & Shaver, 1998; Cassidy & Kobak, 1988; Main, 1991). It may be, for example, that dismissing avoidant individuals are responsible for the hotly contested view that 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). Thus, it seems likely that dismissing avoidant individuals, who scored high on the Efficacy factor of the DEQ and reported low levels of depression similar to secure individuals, are more defensive than secure individuals (Fraley et al., 1998).

Study Limitations

There are a number of limitations of the present study that should be noted. First, given that subjects were predominantly Caucasian, working middle-class, with English as their primary language, the generalizability to other racial, ethnic, and social class groups awaits further study. It should be noted, however, that studies using the Hazan and Shaver three-category measure have not found differences in the distribution of attachment style or patterns of findings based on race (Cooper, Shaver, & Collins, 1998; Mickelson, Kessler, & Shaver, 1998). However, neither of these studies used Bartholomew's four-category scheme. Levy and Kelly (in review), in a sample of predominately inner-city, African-American, and Latino young adult college students

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found a trend for men to be fearful avoidant and women to be disproportionately dismissive in comparison to previous samples. Moreover, neither mental representations nor affect regulation has been extensively studied in diverse samples. Second, the results are not intended to provide information about parents' actual behavior (e.g., were they benevolent or punitive). There may be a substantial gap between representations of parents and the way they actually behave. Although attachment researchers believe representations are derived from childhood experiences of actual parental behaviors, the connection needs to be documented empirically. Third, except for the narrative data, the present study relied exclusively on self-report measures. It is possible that the some of relationship between the constructs assessed by self report is an artifact of method variance. Fourth, although self-report measures of adult romantic attachment have been shown to have considerable reliability and construct validity (Shaver & Hazan, 1993), as well as a moderate degree of convergence with interview ratings (Bartholomew & Horowitz, 1991; Bartholomew & Shaver, 1998; Crowell, Fraley, & Shaver, 1999), studies of representations that use interview-based measures of adult attachment are desirable. The fifth limitation of the present study concerns that fact that there was no direct measure of affect regulation behavior. There may be a substantial gap between what subjects self reports of how they behave in regulating their affect.

Implications for Future Research.

Although the present study has identified attachment style differences in terms of representation, affect regulation, and depression, additional cross-sectional research examining the relationship of these differences to manifestations of behavior. It is also

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particularly important that context dependent research (e.g., examining attachment style differences in affect regulation in different situations, such as when under stress . Additionally, experimental designs that strategically manipulate stress and that employ observational, interview and qualitative methodologies to assess the impacts of this manipulation on respondents' defensive strategies and behaviors could be especially fruitful. Moreover, future longitudinal research is also needed to assess the relationship between the mother-child dyad and the development and organization of affective experience. These studies need to be relate both attachment and affective organization to behaviors and developmental outcomes.

Future research should explore the relationship between concept of fearful avoidance derived from social psychological research and the concept of earned security from developmental research. It is possible that some fearful avoidants are on the way to becoming earned secures, perhaps first as parents, and then in their own adult relationships. It would be worthwhile to determine how they achieve high conceptual levels and greater degrees of differentiation and relatedness and how these capacities can lead to increase security in interpersonal relationships.

Implications for Child Development.

The present findings are consistent with recent theoretical and empirical work on young children's emotional development, which have highlighted the role of verbal and narrative organization of experiences of self and others in the development of emotion organization and regulation (Cicchetti, 1996; Dunn, 1993; Harris, 1989; Stern, 1985; Thompson, 1994). These theorists suggests that narrative capacities introduce a new level

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of self and emotional organization (Stern, 1985, 1989; Wolf, 1991). Wolf, for example, has suggested that the development of narrative abilities increases children's capacity to view complex interpersonal situations from multiple perspectives, including seeing their own selves as having multiple sides or "narrative voices." In addition, the narrative mode provides children with new and rich forms of communication that expand their ability to share personal experience (Wolf, 1991). The importance of narrative organization of emotional experiences has also been described by clinical writers, particularly those of play therapy (e.g., Sandler, Kennedy, & Tyson, 1980; Slade, 1994) For example, Slade (1994) argues that processing emotional experiences in conversation and joint play with children helps them learn to regulate their emotions and results in improved adaptation and emotional well-being. Slade (1994) further suggests that for many children much of therapy involves attempts by the child and therapist to co-construct, out of children's conflictual and often chaotic experiences, emotionally coherent narratives. Once such narratives are formed, Slade argues, children are more capable of regulating their emotions, as well as their behavior. This view is consistent with social-cognitive and neuropsychological theories of self-regulation which note poor internal language mediation results in impaired regulation of impulse, affect, and behavior (Burke, Crenshaw, Green, Schlosser, & Strocchia-Rovera, 1989; Tarter, Hegedus, Winsten, &lterman, 1984) and misperception and misinterpretation of socially relevant cues (Dodge et al., 1990; Milich & Dodge, 1984).

Implications for Clinical Theory and Application.

Main et al., (1985) note that some adults endure unfavorable early attachment

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experiences but subsequently develop working models consistent with secure attachment. Ricks (1985) suggest that working models of attachment may undergo change when early models of attachment are disconfirmed in the context of significant emotional relationships. Ricks notes three principle types of emotional experience that may result in the alteration of mental models: First, experiences of change within the same early relationships across time (e.g., redefining relationships with parents or through the development of resolve); second, through repeated experience in other important relationships that disconfirm earlier acquired models (e.g., with respected peers, with secure romantic partners, or a long-term therapeutic relationship; third, through especially strong emotional experience within a single relationship that, similarly, disconfirm earlier implicit models.

Along these lines, Bowlby (1988) discussed the potential for the therapy relationship to provide the conditions in which the patient can explore and reassess working models of relationships. This occurs to a substantial degree in the exploration of feelings arising in the context of the patient-therapist relationship, and the emotional communication arising between them. Bowlby (1988) formulated five key tasks for psychotherapy: (1) establishing a secure base; (2) exploring past attachments; (3) exploring the therapeutic relationship; (4) linking past experiences to present ones; and (5) revising internal working models. Along these lines, Dorpat (1974) suggests that therapy can help patients with impairments in self-regulatory functions through a process whereby the patient replicates in fantasy the regulatory functions that occur in the therapy relationship, and then identifies with the representation of the therapy relationship, gaining

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autonomous regulatory functions. The therapeutic relationship should create a process through which impaired and/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. For more severely personality disordered patients, therapists may need to modify Bowlby's ideas. For example, Kernberg's confrontational and interpretive method in the transference may be necessary to correct the present time distortions and preserve the therapeutic alliance. Diamond and colleagues (Diamond, Clarkin, Levine, Levy, Foelsch, and Yeomans, in press) report findings from two patients with borderline personality disorder treated in Kernberg's transference focused psychotherapy (TFP; Clarkin, Yeomans, & Kernberg, 1999; Kernberg, Selzer, Koenigsberg, Carr, & Appelbaum, 1989) who moved from insecure to secure states of mind regarding attachment with one year of treatment.

Main and Ricks both contend that secure individuals have a more accurate perception of their parents, more readily come to a resolution regarding difficult experiences, and they find it easier to reconcile with a parent with whom they have had confrontations. Likewise, Fonagy notes that those high in Reflective Function may actually be able to mentalize and integrate new and potentially disconfirming information into their representational worlds that help them work through and resolve difficult emotional experiences. Recently, Fonagy et al. (1996) showed that attachment status can change in response to psychotherapy, suggesting that internal working models may be

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malleable. Clearly, more research and preferably prospective studies with representative samples and multiple methods of assessment are needed to address issues of stability and change of adults' attachment styles in more detail.

Another compelling implication of the findings of this study concern the importance of focusing on both the content and structure (e.g., differentiation and integration) of narrative material in clinical material, both for diagnosis and for understanding the phenomenology of an individual's experience.

Summary and Conclusions

This research sought to examine the relation between attachment patterns, the content and structure of mental representations of self and others, and their relationship to modes of affect regulation and depression. The findings from the present study support the notion that the degree of differentiation and integration of mental representations of self and others mediates the relationship between attachment style and affect regulation. The findings of the present study extend our understanding of adult attachment patterns by elaborating the content and structure of representations of self and others associated with each style, as well as their association to affect regulation. Delineating the developmental level of the structure of these representations is particularly important, because differences in cognitive and affective organization may be as important for social behavior as the content differences emphasized in previous social psychological research on adult attachment.

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Appendix A: Consent Form

IV. Consent For Participation in a Research Project

Yale University School of Medicine

You are invited to participate in a study about experiences and beliefs of young adults. The purpose of this study is to look at experiences and beliefs that young adults have and to explore any patterns that may exist. In order to decide whether or not you wish to be part of this study you should know enough about its risks and benefits to make an informed judgment. This consent form provides detailed information regarding this study.

We are looking for people who will fill out a series of questionnaires which we believe to be related to general experiences and beliefs. From you we need careful, thoughtful, honest answers.

The battery of questions is divided into several parts: a brief section concerning your background (age, sex, race, etc.), then descriptions of important people in your life and some experiences you have had, a short measure of relationship style, a few questions about your relationships and several general measures of personality.

There are no known risks associated with participation in this study. This study should take about one hour. Although you will not be paid for participation, we hope this experiment proves interesting to you. Participation offers the opportunity to become involved in a scientific project that may advance knowledge about young adulthood. You will also have the opportunity to learn about the final results of the study if you so desire.

All your responses will be kept confidential. Your name will be known only to the

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researchers and will not be on the questionnaire itself. Code numbers will be used in the questionnaires instead of names. Thus, all records will be identified by a code number and all information will be entirely anonymous. Your name will only be kept to keep a record of who participated in this experiment. No one but the experimenters will have access to that information. Additionally, we are not looking at individual responses but at responses of groups of people. This means we combine all data in looking at the results.

You are free to choose not to participate and if you do become a subject you are free to withdraw from the study at any time during its course. If you choose not to participate or if you withdraw it will not adversely affect your relationship with the doctors (instructor) or the hospital (university).

Please feel free to ask about anything you don't understand and to consider this research and the consent form carefully--as long as you feel necessary--before you make a decision.

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Appendix B: Statement of Feedback

Statement of Feedback

Thank you for taking the time to fill out these questionnaires. As mentioned in the consent form this study concerns individual's experiences and beliefs, particularly (as you may have guessed) in romantic relationships and relationships with parents.

Again thank you for your participation, we really appreciate your help. We hope it was interesting for you; it was certainly helpful to us. If you are interested in learning more about these topics, you may wish to read:

Blatt, S.J., & Homann, E. (1992). Parent-child interaction in the etiology of dependent and self-critical depression. Clinical Psychology Review, 1992, 12 (1), 47-92.

Hazan, C., & Shaver, P. (1987). Romantic Love Conceptualized As An Attachment Process. Journal of Personality and Social Psychology, 1987, 52, 511-524.

Kobak,R.R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and representation of self and others. Child Development, 59, 135-146.

The theory behind this study is explained in these articles. You are also welcome to call and talk to, or make an appointment to talk in person with, a staff member on the project. Call Dr. Blatt's office: 785-2090. Thanks again for your help!

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Appendix C: Demographic Information

Age: _____ Date of Birth _____

Sex: Male Female (circle one)

Ethnicity: _____

Religion: _____

Best Known Language: _____

Class Year: Fr So Jr Sr

Marital Status (circle one): single married separated divorced

Parents' Marital Status: _____

Father's highest level of education_____

Father's occupation_____

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Mother's highest level of education_____

Mothers's occupation_____

Your highest level of education_____

Your occupation (you may put student)_____

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Appendix D/1: Object Representation Inventory

Please describe your mother (check if your describing your stepmother__).

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Appendix D/2: Object Representation Inventory

Please describe your father (check if your describing your stepfather_).

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Appendix D/3: Object Representation Inventory

Please describe yourself.

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Appendix D/4: Object Representation Inventory

Please describe the person with whom your most closest to (other then your parents).

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Appendix D/5: Object Representation Inventory

Please describe an important experience that you had with your mother.

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Appendix D/6: Object Representation Inventory

How did you feel during this experience?

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Appendix E: Bartholomew Attachment Measure

1. Following are descriptions of four general relationship styles that people often report. Please **place a checkmark** next to the letter corresponding to the style that **best** describes you or is **closest** to the way you are.

____A. It is relatively easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don't worry about being alone or having others not accept me.

____B. I am somewhat uncomfortable getting close to others. I want emotionally close relationships, but I find it difficult to trust others completely, or to depend on them. I sometimes worry that I will be hurt if I allow myself to become too close to others.

____C. I want to be completely emotionally intimate with others, but I often find others are reluctant to get as close as I would like. I am uncomfortable being without close relationships, but I sometimes worry that others don't value me as much as I value them.

____D. I am comfortable without close relationships. It is very important to me to feel independent and self-sufficient, and I prefer not to depend on others or have others depend on me.

2. Now please rate each of the relationship styles above according to the extent to which you think each description corresponds o your general relationship style.

	Not at all like me		Somewhat like me		Very much like me		
Style A:	1	2	3	4	5	6	7
Style B:	1	2	3	4	5	6	7
Style C:	1	2	3	4	5	6	7
Style D:	1	2	3	4	5	6	7

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Appendix F: The Multi-Item Relationship Questionnaire

Please rate the next 14 questions using the scale directly below and place your ratings on the corresponding line to the far right.

Not at all like me			Somewhat like me	Very much like me		
1	2	3	4	5	6	7

1. It is relatively easy for me to become emotionally close to others. _____
2. I am comfortable depending on others and having others depend on me. _____
3. I don't worry about being alone or having others not accept me. _____
4. I am somewhat uncomfortable getting close to others. _____
5. I want emotionally close relationships _____
6. I find it difficult to trust others completely, or to depend on them. _____
7. I sometimes worry that I will be hurt if I allow myself to become too close to others. _____
8. I want to be completely emotionally intimate with others. _____
9. I often find others are reluctant to get as close as I would like. _____
10. I am uncomfortable being without close relationships. _____
11. I sometimes worry that others don't value me as much as I value them. _____
12. I am comfortable without close emotional relationships. _____
13. It is very important to me to feel independent and self-sufficient. _____
14. I prefer not to depend on others or have others depend on me. _____

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Appendix G: Depressive Experiences Questionnaire

Listed below are a number of statements concerning personal characteristics and traits. Read each item and decide whether you agree or disagree and to what extent. If you strongly agree, circle 7; if you strongly disagree, circle 1; if you feel somewhere in between, circle and one of the numbers between 1 and 7. The midpoint, if you are neutral or undecided, is 4.

	Strongly Disagree						Strongly Agree
1. I set my personal goals and standards as high as possible.	1	2	3	4	5	6	7
2. Without support form others who are close to me, I would be helpless.	1	2	3	4	5	6	7
3. I tend to be satisfied with my current plans and goals, rather than striving for higher goals.	1	2	3	4	5	6	7
4. Sometimes I feel very big, and other times I feel very small.	1	2	3	4	5	6	7
5. When I am closely involved with someone, I never feel jealous.	1	2	3	4	5	6	7
6. I urgently need things that only other people can provide.	1	2	3	4	5	6	7

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	Strongly Disagree						Strongly Agree
7. I often find that I don't live up to my own standards or ideals.	1	2	3	4	5	6	7
8. I feel I am always making full use of my potential abilities.	1	2	3	4	5	6	7
9. The lack of permanence in human relationships doesn't bother me.	1	2	3	4	5	6	7
10. If I fail to live up to expectations, I feel unworthy.	1	2	3	4	5	6	7
11. Many times I feel helpless.	1	2	3	4	5	6	7
12. I seldom worry about being criticized for things I have said and done.	1	2	3	4	5	6	7
13. There is a considerable difference between how I am now and how I would like to be.	1	2	3	4	5	6	7
14. I enjoy sharp competition with others.	1	2	3	4	5	6	7
15. I feel I have many responsibilities that I must meet.	1	2	3	4	5	6	7
16. There are times I feel "empty" inside.	1	2	3	4	5	6	7
17. I tend not to be satisfied with what I have.	1	2	3	4	5	6	7
18. I don't care whether or not I live up to what							

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	Strongly Disagree						Strongly Agree
other people expect of me.	1	2	3	4	5	6	7
19. I become frightened when I feel alone.	1	2	3	4	5	6	7
20. I would feel like I'd be losing an important part of myself if I lost a very close friend.	1	2	3	4	5	6	7
21. People will accept me no matter how many mistakes I have made.	1	2	3	4	5	6	7
22. I have difficulty breaking off a relationship that is making me unhappy.	1	2	3	4	5	6	7
23. I often think about the danger of losing someone who is close to me.	1	2	3	4	5	6	7
24. Other people have high expectations of me.	1	2	3	4	5	6	7
25. When I am with others, I tend to devalue or "undersell" myself.	1	2	3	4	5	6	7
26. I am not very concerned with how other people respond to me.	1	2	3	4	5	6	7
27. No matter how close a relationship between	1	2	3	4	5	6	7
28. I am very sensitive to others for signs of rejection.	1	2	3	4	5	6	7
29. It's important for my family that I succeed.	1	2	3	4	5	6	7

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	Strongly Disagree						Strongly Agree
30. Often, I feel I have disappointed others.	1	2	3	4	5	6	7
31. If someone makes me angry, I let him (her) know how I feel.	1	2	3	4	5	6	7
32. I constantly try, and very often go out of my way, to please or help people I am close to.	1	2	3	4	5	6	7
33. I have many inner resources (abilities, strengths).	1	2	3	4	5	6	7
34. I find it very difficult to say "No" to the requests of friends.	1	2	3	4	5	6	7
35. I never really feel secure in a close relationship.	1	2	3	4	5	6	7
36. The way I feel about myself frequently varies: there are times when I feel extremely good about myself and other times when I see only the bad in me and feel like a total failure.	1	2	3	4	5	6	7
37. Often, I feel threatened by change.	1	2	3	4	5	6	7
38. Even if the person who is closest to me were to leave, I could still "go it alone."	1	2	3	4	5	6	7
39. One must continually work to gain love from							

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	Strongly Disagree						Strongly Agree
another person: that is , love has to be earned.	1	2	3	4	5	6	7
40. I am very sensitive to the effects my words or actions have on the feelings of other people.	1	2	3	4	5	6	7
41. I often blame myself for things I have done or said.	1	2	3	4	5	6	7
42. I am a very independent person.	1	2	3	4	5	6	7
43. I often feel guilty.	1	2	3	4	5	6	7
44. I think of myself as a very complex person, one who has "many sides."	1	2	3	4	5	6	7
45. I worry a lot about offending or hurting someone who is close to me.	1	2	3	4	5	6	7
46. Anger frightens me.	1	2	3	4	5	6	7
47. It is not "who you are," but "what you have accomplished" that counts.	1	2	3	4	5	6	7
48. I feel good about myself whether I succeed or fail.	1	2	3	4	5	6	7
49. I can easily put my won feelings and problems aside, and devote my complete attention to the feelings and problems of someone else.	1	2	3	4	5	6	7

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	Strongly Disagree						Strongly Agree
50. If someone I cared about became angry with me, I would feel threatened that he (she) might leave me.	1	2	3	4	5	6	7
51. I feel uncomfortable when I am given important responsibilities.	1	2	3	4	5	6	7
52. After a fight with a friend, I must make amends as soon as possible.	1	2	3	4	5	6	7
53. I have a difficult time accepting weaknesses in myself.	1	2	3	4	5	6	7
54. It is more important that I enjoy my work than it is for me to have my work approved.	1	2	3	4	5	6	7
55. After an argument, I feel very lonely.	1	2	3	4	5	6	7
56. In my relationships with others, I am very concerned about what they can give to me.	1	2	3	4	5	6	7
57. I rarely think about my family.	1	2	3	4	5	6	7
58. Very frequently, my feelings toward someone close to me vary: there are times when I feel completely angry and other times I feel all-loving towards that person.	1	2	3	4	5	6	7

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	Strongly Disagree						Strongly Agree
59. What I do and say has a very strong impact on those around me.	1	2	3	4	5	6	7
60. I sometimes feel that I am "special."	1	2	3	4	5	6	7
61. I grew up in an extremely close family.	1	2	3	4	5	6	7
62. I am very satisfied with myself and my accomplishments.	1	2	3	4	5	6	7
63. I want many things from someone I am close to.	1	2	3	4	5	6	7
64. I tend to be very critical of myself.	1	2	3	4	5	6	7
65. Being alone doesn't bother me at all.	1	2	3	4	5	6	7
66. I very frequently compare myself to standards or goals.	1	2	3	4	5	6	7

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Appendix H: Affect Regulation Scale

When you are experiencing anxiety or other painful feelings that are particularly hard for you to cope with:

	Which of the following do you do, and/or which of the following seems to happen? 1=never 2=rarely 3=sometimes 4=often 5=usually 6=always	If you do this or it happens to you, to what extent does it help you to feel better emotionally? 1=not at all 2=a little bit 3=moderately 4=a lot
1-phone a relative	___	___
2-have a cigarette	___	___
3-daydream	___	___
4-meditate	___	___
5-watch TV	___	___
6-bite my nails	___	___
7-read	___	___
8-visit a friend	___	___
9-take a bath or shower	___	___

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10-help someone else	___	___
11-have a good cry	___	___
12-go shopping	___	___
13-think positive thoughts	___	___
14-clean	___	___
15-get a headache	___	___
16-go for a car ride	___	___
17-think about someone who cares about you	___	___
18-try to understand the feeling	___	___
19-drink alcohol	___	___
20-try to be logical	___	___
21-pray	___	___
22-get a stomachache	___	___
23-think about suicide	___	___
24-overeat	___	___
25-stay away from or avoid people	___	___
26-get lost in a fantasy world	___	___
27-organize things in your life (schedule, room, desk, etc.)	___	___
28-engage in sexual activity with someone	___	___
29-listen to music	___	___

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30-make social plans for the future ___ ___

31-write in a diary or journal ___ ___

32-exercise (alone) ___ ___

33-talk yourself into a calmer state ___ ___

34-take prescription medication ___ ___

35-go to sleep ___ ___

36-binge on food ___ ___

37-find someone who can help take your mind off your feelings ___ ___

38-act child-like ___ ___

39-develop a rash ___ ___

40-engage in a hobby ___ ___

41-masturbate ___ ___

42-take non-prescription drugs(pot, cocaine LSD, etc) ___ ___

43-try to think about things in a different way ___ ___

44-think about the happiness of others ___ ___

45-talk it over with God ___ ___

46-spend time with your pet ___ ___

47-think about your therapist ___ ___

48-find it impossible to eat ___ ___

49-pull your hair ___ ___

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50-focus on your breathing	___	___
51-stay busy	___	___
52-take a walk	___	___
53-think of other times you felt this way	___	___
54-cut your skin	___	___
55-think about someone you care about	___	___
56-try to take your mind off the feeling	___	___
57-fantasize about disappearing	___	___
58-think of others who are worse off	___	___
59-put yourself down	___	___
60-pinch or hit yourself	___	___
61-ask someone for help	___	___
62-try to put the feelings in a separate compartment so they don't affect you	___	___
63-imagine talking to your therapist	___	___
64-begin twitching	___	___
65-engage in reckless behavior	___	___
66-use laxatives or diuretics	___	___
67-ridicule others	___	___
68-have fantasies about sex with someone	___	___
69-focus on the feeling until it passes	___	___
70-create something	___	___
71-cook or bake	___	___

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72-plan the future ___ ___

73-view yourself as if you are outside of yourself ___ ___

74-sit down to relax ___ ___

75-figure out who is to blame for the way you feel ___ ___

76-try to see the humor in what you feel ___ ___

77-remind yourself that you've gotten through it before ___ ___

78-have fantasies about hurting someone ___ ___

79-think about your superiority over others ___ ___

80-try to figure out what others do when they feel this way ___ ___

81-try to change the situation that led up to the feelings ___ ___

82-Wait for your feelings to go away ___ ___

83-write letters ___ ___

84-Vent your feelings ___ ___

85-give yourself a treat ___ ___

86-do chores/errands ___ ___

87-try to be around children ___ ___

88-get into nature ___ ___

89-drink coffee or tea ___ ___

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90-get some sun ___ ___

91-avoid activity ___ ___

In general, when you are anxious or upset, are you able to soothe or comfort yourself so that you feel better? (Circle one)

never rarely sometimes often usually always

Overall, how do you feel you compare to the average person on being able to soothe or comfort yourself? (Circle one)

much worse somewhat worse about the same somewhat better much better

How well do you feel you can soothe yourself when you're feeling:

	Not very well		Moderately well			Quite well		
	1	2	3	4	5	6	7	
anxious								___
angry								___
lonely								___
sad								___
frustrated								___
frightened								___
jealous								___
shameful								___
guilty								___

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Appendix I: Developmental Level of Affect Regulation Scale for Descriptions of Feelings

Level 1-Sensorimotor Affective States

Feelings and emotions are described as global undifferentiated states of arousal, often subjects offer no description ("I can't say," "I don't know," "It is hard for me to say.") or description of bodily sensations ("I feel tired," "I feel sick," " I just felt terrible") Emotions appear reflexive, outward, and symbiotic, as well as overstimulating. Affect tolerance is achieved mainly through avoidance, dedifferentiation and somatization of affects. Since emotions are not clearly differentiated, at times there is confusion of who's emotion's are being discussed. Additionally, emotions are attributed more to the situation as a whole rather than to any individual facet of the situation (e.g., "it was sad," "just sadness," "it was the best,"), and thus have an atmospheric or mood-like quality. The tone is usually extremely one-sided, polarized and malevolent (example) or artificially idealized ("it was great.")

Level 2-Action Tendency Affects

Individuals at this level describe global arousal, but in contrast to Level 1 Subjects who are passive recipients of emotions, subjects at level 2 are able to induce change in these undifferentiated emotional state through actions on the environment (thus descriptions of action tendencies). These action tendencies are enacted outward and are externalized motorically, indicating a projection of internal states and feelings onto the environment. Likewise, feelings appear to disrupt self-cohesion and soothing comes from the outside world (e.g., through others--symbiotic behaviors, sexual acting out or drugs & alcohol). Feeling are often represented in a polarized fashion--good/bad/all/nothing and are tolerated through highly polarized or simple unidimensional emotive experiences that

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focus on action. These actions are either of an anaclitic or a symbiotic nature (e.g., wanting to hug, be feed, be stroked, to merge, or to be filled up) or self-assertive, overly self-reliant, fighting intrusion (e.g., pushing, punching) and threats to one's sense of integrity, where emotions are draining and depleting. The emotional tone is global, univalent, event like and often hostile or empty or global hedonistic states that are enacted, are outward, emotion identification through behavior (motor mimicry)."I feel like punching a wall" or "I'd feel like squeezing him." "I punched him" I just wanted to hug him"

Level 3-Stereotypical Affects

Subjects describe for the most part, but not exclusively, unidimensional global emotional reactions; with a tendency toward a global and diffuse either or quality that focus on experiences of emotional extremes. Subjects have a stable use of emotion terms, but display a limited emotional repertoire, where descriptions of emotions are unidimensional, stereotypical, and with a veiled and tenuous sense of being internal. Moreover, an appreciation for nuances of one's emotional life is still lacking. Thus emotions are often described in less differentiated emotional terms, "good," "Bad," "Happy," "angry," in contrast to more differentiated emotional terms like "resentment," and "jealousy." There is minimal recognition of differences in emotions and emotions are described mainly in external characteristics with only idiosyncratic or inconsistent awareness of other's experience. Responses involve the use of one word to convey typical, differentiated emotions (e.g., "We'd both feel happy"), or contain only minor elaborations of emotions. These mixed emotions occur but not in the same happening or person the tone can be ambivalent and descriptions may contain both positive and negative emotions (e.g., "I'd

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feel bad, my friend would feel good"). Additionally, the ambivalence is mainly expressed through contradictory emotional expressions that are juxtaposed with little or no effort for synthesis. Feelings are often in the service of maintaining illusions and splits and are attributed to people in a rudimentary manner, where responses can be either dramatic and strong, overemotional reactions, yet vague and shallow (e.g., Yeah! it was really great!) or conversely may be overly objective, detached, or intellectualized, appearing stilted and blunted, like the reading off of emotions.

Level 4-Internal and Differentiated Affects

At this level affects are clearly attributed as psychological states to individual persons, and the affect is a more individualized expression of the person's characteristics. Contradictory and ambivalent emotions are attributed to the individuals involved and are brought in juxtaposition to each other so that there is some recognition of the contradiction and internal conflict, with some attempt to resolve it.

Level 5-Integrated and Empathic Affects.

Individual's descriptions indicate that they are able to experience many nuances of emotions; that their own experience does not limit empathic awareness of another's experience. Moreover, they are able to affectively share and cognitively understand others perspectives, to show a generative empathy (Shafer, 1959) in terms of complexity of both conscious and unconscious motivations. This is similar to Anna Freud's concept of an observing ego individuals where one is able to reflectively step outside themselves and fully experience the interaction between themselves and others. Consequently emotions are shared through generative empathy, and communicated to others through well articulated, reflective, and coherent descriptions of experience that convey the essence of

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the emotive experience. Additionally, there is an acknowledgment of consistencies and contradictions which are grappled with and integrated with ease and eventual resolve. Mixed and contradictory emotions can not only be experienced, but the conflicting emotions modify each other and may be placed in a wider perspective, where states of the self or relationship are seen as contributing to the affect. There are descriptions of more complex and differentiated states with peak differentiation of quality and intensity of emotions and yet richer blendings. Emotions are internal as opposed to projected out there in the environment, are metaphorical, advanced recognition of integrated separate feelings, multifaceted awareness of other's state based on ability to imagine in other's context. empathic and introspective, appropriate grief, internal mediator of verbalized frustrations and real dangers. Minimal ambivalence around conflict, rather increasing resolve. There is a sense of containment, self-cohesiveness, and integrity deriving from one's realistic appraisal of a place and role in the world, as opposed to previous levels where containment is derived through avoidance, isolation, acting out or somatization. Nuances of one's emotional life are expressed and emotions are integrated, modulated, and accepted, there is a sense of benevolence and conflict resolution is the rule rather than the exception. Individuals show evidence of a reflective self-awareness concerning feelings.

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