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Attachment Theory and Attachment Styles

Phillip R. Shaver   Mario Mikulincer

University of California, Davis   Interdisciplinary Center (IDC) Herzliya

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Author addresses: Phillip R. Shaver, Department of Psychology, University of California, Davis, One Shields Avenue, Davis, CA 95616-8686, e-mail: prshaver@ucdavis.edu.

Mario Mikulincer, New School of Psychology, Interdisciplinary Center (IDC) Herzliya, P. O. Box 167, Herzliya 46150, Israel, e-mail: mario@idc.ac.il

Attachment theory (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969/1982) was initially proposed as a way of understanding why close relationships in the family, and the loss of such relationships, are among the most important determinants of later social adjustment and mental health. The originator of the theory, John Bowlby, was a British psychoanalyst with an unusual interest in ethology and cognitive and developmental psychology. He was fortunate to form a working relationship with an American developmental psychologist, Mary Ainsworth, who added psychometric and research skills to Bowlby's astute clinical observations and exceptional ability to integrate diverse scientific literatures in the service of what, by today's standards, is a "grand theory."

The key components of the theory are few, and they are relatively easy to describe: (a) Humans and other primates evolved behavioral and motivational systems that allow them to survive and reproduce, despite vulnerabilities associated with being born prematurely, taking a long time to develop to maturity, and needing the protection, assistance, and cooperation of other species members across the lifespan. (b) One of these behavioral systems, the attachment system, is responsible for establishing primary social connections and calling upon them in times of stress or difficulty. (c) The history of a person's close relationships shapes the parameters of his or her attachment system, leaving an important residue in the form of "internal working models" of self, partners, and relationships. This developmental process results in each person having a measurable "attachment style" (Hazan & Shaver, 1987) which influences the nature and outcomes of subsequent relationships, including those with romantic/sexual partners, close friends, offspring, and even coworkers and subordinates in social organizations (e.g., Davidovitz, Mikulincer, Shaver, Ijzak, & Popper, 2007).

In this chapter we describe the theory in more detail, explain how its key constructs are measured in studies of adolescents and adults, and provide a brief summary of research findings. A much more detailed account of the theory and the research it has generated can be found in our book, *Attachment in Adulthood* (Mikulincer & Shaver, 2007b).

Attachment Theory: Basic Concepts

The Attachment Behavioral System

In *Attachment and Loss* – one of the most cited series of books in contemporary psychology – Bowlby (1969/1982, 1973, 1980) attempted to map and understand the profound impact that the quality of early relationships with primary caregivers has on personality development and individual differences in social behavior across the lifespan. As a psychoanalyst, Bowlby was well aware that Freud and his followers had already explored this issue, but he was also aware that his fellow psychoanalysts had not effectively integrated their work and their interpretive approach to human problems with the rest of scientific psychology and psychiatry. By considering a vast array of empirical and theoretical writings ranging from clinical observations of infants deprived of maternal care, to primate ethology and Piaget's theory of cognitive development, Bowlby came to the conclusion that a person's fundamental sense of safety, self-worth, coping efficacy, and well-being rests on the quality of his or her social interactions with close relationship partners, beginning with primary caregivers in infancy. He also concluded that when a person does not have reliable, trustworthy, supportive relationships with close others, personality development is distorted in ways that have serious negative consequences.

In explaining the motivational processes involved in personality development, which Freud attempted to do using concepts such as sexual and aggressive "drives" or "instincts," Bowlby (1969/1982) borrowed from primate ethology the concept of *behavioral system*s, species-universal, biologically evolved neural programs that organize behavior in ways that increase the likelihood of survival and reproduction. He portrayed these systems as similar to cybernetic control systems, which do not follow drive principles. According to Bowlby (1969/1982), one of the key behavioral systems is the *attachment system,* which has the biological function of protecting a person (especially during infancy and early childhood) from danger by assuring that he or she maintains proximity to caring and supportive others (whom Bowlby, 1969/1982 called *attachment figures*). In Bowlby's (1969/1982) view, the need to seek

out and maintain proximity to attachment figures evolved in relation to the prolonged dependence of human infants on "stronger and wiser" others (often, but not always, parents), who could defend them from predators and other dangers. Because human (and other primate) infants seem naturally to look for and gravitate toward *particular* others (those who are familiar and at least sometimes helpful), and to prefer them over alternative caregivers, Bowlby used the terms "affectional bond" and "attachment," which is the reason for calling his formulation *attachment theory*. Although the attachment system is most important and most visible in behavior during the early years of life, Bowlby (1988) claimed that it is active across the lifespan and is frequently manifested in seeking support and love from close relationship partners. This inspired various researchers (e.g., Main, Kaplan, & Cassidy, 1985; Shaver, Hazan, & Bradshaw, 1988) to extend the theory into the domain of adult relationships.

The purported goal of the attachment system is to maintain a sense of safety or security (called "felt security" by Sroufe & Waters, 1977). In Bowlby's (1969/1982) view, the attachment behavioral system is particularly activated by events that threaten the sense of security, such as encounters with actual or symbolic threats and noticing that an attachment figure as not sufficiently near, interested, or responsive. In such cases, a person is automatically motivated to seek and reestablish actual or symbolic proximity to an attachment figure (a process Bowlby, 1969/1982, called the attachment system's "primary strategy"). These bids for proximity persist until protection and security are attained. The attachment system is then deactivated and the person can calmly and coherently return to other activities, which Bowlby considered to be under the control of other behavioral systems (e.g., exploration, affiliation, caregiving). In infancy, attachment-system activation includes nonverbal expressions of distress, need, and desire for proximity (e.g., crying, calling) and locomotor behaviors aimed at reestablishing and maintaining proximity (Ainsworth et al., 1978). In adulthood, the primary attachment strategy does not necessarily require actual proximity-seeking behavior, although often such behavior is initiated; it can also involve the internal activation of comforting mental representations of relationship partners who regularly provide care and protection (Mikulincer & Shaver, 2004). These

cognitive representations can create a sense of safety and security and help a person deal successfully with threats.

Individual Differences in Attachment-System Strategies

Although nearly all children are born with a normal attachment system, which motivates them to pursue proximity and security from an attachment figure in times of need, the quality of attachment-system functioning also depends on the availability of such a figure in times of need; his or her sensitivity and responsiveness to bids for closeness, comfort, and support; and his or her ability and willingness to alleviate distress and provide a secure base from which to return calmly to other activities (Bowlby, 1973, 1988). As Cassidy (1999) noted, "Whereas nearly all children become attached (even to mothers who abuse them; Bowlby, 1956), not all are securely attached" (p. 7). According to attachment theory, the quality of interactions with attachment figures in times of need is the major cause of individual differences in attachment-system functioning. (There may also be genetic causes, as shown recently by Crawford et al., 2007, and Donnellan, Burt, Levendosky, & Klump, 2008, a possibility that was mentioned early on by Bowlby, 1969/1982.)

When an attachment figure is available, sensitive, and responsive to an individual's proximity bids, he or she is likely to feel an inner sense of security – a sense that the world is a safe place, others are helpful when called upon, and it is possible to explore the environment curiously and confidently and engage rewardingly with other people. This sense is an inner signal that the attachment system is functioning well and that proximity seeking is an effective emotion-regulatory strategy. Moreover, people acquire important procedural knowledge about distress management, which becomes organized around a relational script (Waters, Rodrigues, & Ridgeway, 1998; Waters & Waters, 2006). This script includes the following if-then propositions: "If I encounter an obstacle and/or become distressed, I can approach a significant other for help; he or she is likely to be available and supportive; I will experience relief and comfort as a result of proximity to this person; I can then return to other activities."

When an attachment figure is not physically or emotionally available in times of need, not responsive to one's bids for proximity, or poor at alleviating distress or providing a secure base, attachment-system functioning is disrupted and the individual does not experience comfort, relief, or felt security. Rather, the distress that initially activated the system is compounded by serious doubts about the feasibility of attaining a sense of security: "Is the world a safe place or not? Can I trust others in times of need? Do I have the resources necessary to manage my own negative emotions?" These worries about self and others can maintain the attachment system in a continually activated state, keep a person's mind preoccupied with threats and the need for protection, and interfere drastically with other activities.

Frustrating interactions with inadequately available or unresponsive attachment figures indicate that the attachment system's operating parameters need to be adjusted. This implies that certain *secondary attachment strategies* need to be adopted rather than continuing to rely only on the primary strategy, confident proximity seeking. Attachment theorists (e.g., Cassidy & Kobak, 1988; Main, 1990) have emphasized two such secondary strategies: *hyperactivation* and *deactivation* of the attachment system. Hyperactivating strategies emerge from interactions with attachment figures who are sometimes responsive but only unreliably so, placing the attached person on a partial reinforcement schedule that seems to reward energetic, strident, noisy proximity bids, because they sometimes seem to succeed. In such cases, people do not easily give up on proximity seeking, and in fact they intensify it as a way to demand the attachment figure's love and support. The main goal of these strategies is to get an attachment figure, viewed as unreliable or insufficiently available and responsive, to pay attention and provide protection or support. The chosen way to pursue this goal is to maintain the attachment system in a chronically activated state. This involves exaggerating appraisals of danger and signs of attachment-figure unavailability, and intensifying demands for attention, affection, and assistance. When repeatedly practiced, this secondary strategy becomes what we call an anxious attachment style.

Deactivating strategies are another reaction to an attachment figure's unavailability, and they seem to arise in conjunction with attachment figures who disapprove of and punish

closeness and expressions of need or vulnerability. In such relationships, an individual learns to expect better outcomes if signs of need and vulnerability are hidden or suppressed, proximity bids are weakened or blocked, the attachment system is deactivated despite a sense of security not being achieved, and attempts are made to handle threats by oneself (a strategy Bowlby, 1969/1982, called "compulsive self-reliance"). The primary goal of deactivating strategies is to keep the attachment system down-regulated to avoid the distress caused by attachment-figure unavailability or rejection. This deactivation requires denying attachment needs, steering clear of closeness and interdependence in relationships, and distancing oneself from threats that might cause unwanted activation of the attachment system.

Attachment Working Models

Beyond characterizing individual differences in attachment-system functioning during interactions with attachment figures, Bowlby (1973) also proposed that such interactions can be incorporated into mental structures that eventually become relatively stable personality patterns. At the core of these mental structures are what Bowlby (1973) called internal working models. The term "working" has two meanings in attachment theory. One is that the models are not static representations, but rather area the basis of social expectations, inferences about the likely outcomes of alternative social behaviors, and behavioral programs that can be enacted in relationships. The other meaning of "working" is that the models are based on past experiences and can be revised based on new experiences. This is what makes personality change and successful relationship-oriented psychotherapy possible (Bowlby, 1988).

Bowlby (1969/1982) thought that interactions with attachment figures were stored in at least two kinds of working models: representations of attachment figures' responses (*working models of others*) and representations of the self's lovability and competence (*working models of self*). He argued that, "If an individual is to draw up a plan to achieve a set-goal not only does he have to have some sort of working model of his environment, but he must have also some working knowledge of his own behavioral skills and potentialities" (1969/1982, p. 112). Thus the attachment system, once it has been activated repeatedly during interactions with a specific

attachment figure, includes representations of the availability, responsiveness, and sensitivity of such a figure as well as representations of the self's own capabilities for mobilizing the attachment figure's support and one's feelings of being loved and valued by this figure.

Because working models, at least initially, are based on the internalization of specific interactions with a particular attachment figure, a person can hold multiple working models that differ in the outcome of the interaction (success or failure to attain security) and the strategy used to deal with the distress caused by attachment-figure unavailability (hyperactivating or deactivating, anxious or avoidant). Like other cognitive representations, these working models form excitatory and inhibitory associations with each other (e.g., experiencing or thinking about a security attainment activates memories of congruent episodes of successful proximity bids and renders memories of attachment-figure unavailability less accessible), and these associations favor the formation of more abstract and generalized representations of a relationship with a specific partner. Thus, models with a specific attachment figure (relationship-specific models) are created, and through excitatory and inhibitory links with models representing interactions with other attachment figures, even more generic working models are formed to summarize different kinds of relationships. The result of this process can be conceptualized as a hierarchical associative memory network that includes episodic memories, relationship-specific models, and generic models of security-attainment, hyperactivation, and deactivation. As a result, with respect to a particular relationship and across different relationships, most people can sometimes think about interpersonal relations in secure terms and at other times think about them in less secure terms. In a 2003 paper, Overall, Fletcher, and Friesen provided empirical support for this hierarchical structure of attachment working models.

Each working model within the hierarchical network differs in cognitive accessibility – that is, the ease with which it can be activated and used to guide the functioning of the attachment system in a given social interaction (Collins & Read, 1994). As with other cognitive representations, the strength or accessibility of each model is determined by the amount of experience on which it is based, the number of times it has been applied in the past, and the

density of its connections with other working models (e.g., Baldwin, 1992; Collins & Read, 1994; Shaver et al., 1996). At a relationship-specific level, the model representing the typical interaction with an attachment figure has the highest accessibility in subsequent interactions with that person. At a generic level, the model that represents interactions with major attachment figures (e.g., parents and romantic partners) becomes the most chronically accessible working model and has the strongest effect on attachment-system functioning across relationships and over time.

Consolidation of a chronically accessible working model is the most important psychological process accounting for the enduring, long-term effects on personality functioning of attachment-relevant interactions during infancy, childhood, and adolescence (Bowlby, 1973; Fraley, 2002; Waters, Merrick, Treboux, Crowell, & Albersheim, 2000). Given a fairly consistent pattern of interactions with primary caregivers during childhood, the most representative or prototypical working models of these interactions become part of a person's implicit procedural knowledge, tend to operate automatically and unconsciously, and are resistant to change. Thus, what began as representations of specific interactions with a primary caregiver during childhood become core personality characteristics, tend to be applied in new situations and relationships, and shape the functioning of the attachment-system in adulthood.

The Concept of Attachment Style

According to attachment theory (Bowlby, 1988; Fraley & Shaver, 2000; Mikulincer & Shaver, 2007b), a particular history of attachment experiences and the resulting consolidation of chronically accessible working models lead to the formation of relatively stable individual differences in the operating parameters of the attachment system. These stable and generalized individual differences can be empirically examined by measuring a construct called *"attachment style"* – a person's characteristic pattern of expectations, needs, emotions, and behavior in social interactions and close relationships (Hazan & Shaver, 1987). Depending on how it is measured, attachment style characterizes the way people behave in a particular relationship (relationship-specific style) or across relationships (global attachment style).

The concept of attachment style, although not given that name, was first proposed by Ainsworth (1967) to describe infants' patterns of responses to separations from and reunions with their mother in a laboratory "strange situation" assessment procedure. Based on this procedure, infants were classified into one of three style categories: secure, anxious, or avoidant. Main and Solomon (1990) later added a fourth category, "disorganized/disoriented," which included odd, awkward behavior and unusual fluctuations between anxiety and avoidance. Ainsworth et al. (1978) noticed that the different infant attachment patterns can be arrayed in a two-dimensional space, based on the anxiety and avoidance dimensions. This possibility has also been pursued in subsequent studies of romantic and global attachment styles.

Infants classified as secure seem to possess chronically accessible working models of secure attachment, and their pattern of responses to separation and reunion reflects a stable sense of attachment security. Specifically, they react to separation from their mother with overt expressions of distress but then recover quickly and continue to explore the environment with interest. When reunited with mother, they greet her with joy and affection, respond positively to being held, and initiate contact with her (Ainsworth et al., 1978). Avoidant infants seem to hold chronically accessible working models of unsuccessful proximity bids organized around attachment-system deactivation. During separation and reunion episodes, they show little distress when separated from mother and seem to actively avoid her upon reunion (Ainsworth et al., 1978). Anxious infants also seem to hold chronically accessible working models of frustrated proximity bids, but these models seem to be organized around attachment-system hyperactivation. These infants show overt expressions of distress and despair during separation episodes and conflictual, angry responses toward mother upon reunion (Ainsworth et al., 1978). The two different insecure patterns can be viewed as defensive styles, one based on attempting to shut down or deactivate the attachment system in order to avoid punishment or frustration; the other based on attempting to escalate the expression of negative emotion until a more security-enhancing response from an attachment figure is attained.

In the 1980s, researchers from different psychological fields (developmental, clinical, personality, and social psychology) constructed new measures of attachment style in order to extend attachment research into adolescence and adulthood. Based on a developmental and clinical approach, Main and her colleagues (George, Kaplan, & Main, 1985; Main et al., 1985; see Hesse, 1999, for a review) devised the Adult Attachment Interview (AAI) to study adolescents and adults' mental representations of attachment to their parents during childhood. In the AAI, interviewees answer open-ended questions about their childhood relationships with parents and are classified into three categories paralleling Ainsworth's infant typology: "secure" (or free and autonomous with respect to attachment), "dismissing" (of attachment), or "preoccupied" (with attachment). A person is classified as secure if he or she describes parents as available and responsive and his or her memories of relationships with parents are presented in a clear, convincing, and coherent manner. Dismissing individuals play down the importance of attachment relationships and tend to recall few concrete episodes of emotional interactions with their parents. Preoccupied people are entangled in worries and angry feelings about parents and, although they can easily retrieve negative memories, they have trouble discussing them coherently without becoming overwhelmed and disorganized by anger or anxiety. In recent years, new categories have been added to the AAI coding system, because some adults seem either to be unresolved with respect to traumas or losses or to be unclassifiable into any of the major attachment categories. These patterns, which would take us beyond our space limitations to discuss, are associated with having a child with the new fourth attachment pattern, "disorganized/disoriented" (Main & Solomon, 1990), which in turn is most strongly related to later psychopathology. These issues are among the most actively studies by clinically oriented attachment researchers because of their applied significance.

Despite the great value of the AAI as a method of studying adults' attachment patterns, the interview is difficult to administer and score, and it focuses almost exclusively on an adult's early relationships with parents. Taking a different path into the domain of adult attachment, Hazan and Shaver (1987; Shaver et al., 1988) applied Bowlby's ideas to the study of romantic

relationships. Because they developed their ideas within the framework of personality-social psychology, they began with a simple self-report measure of adult attachment style. This measure consisted of three brief descriptions of feelings and behaviors in romantic relationships that were intended to be adult analogues of the three infant attachment styles identified by Ainsworth et al. (1978). Participants were asked to read the three descriptions and then place themselves into one of the three attachment categories according to their predominant feelings and behavior in romantic relationships. The three descriptions were:

Secure: I find it relatively easy to get close to others and am comfortable depending on them and having them depend on me. I don't worry about being abandoned or about someone getting too close to me.

Avoidant: I am somewhat uncomfortable being close to others; I find it difficult to trust them completely, difficult to allow myself to depend on them. I am nervous when anyone gets too close and often, others want me to be more intimate than I feel comfortable being.

Anxious: I find that others are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't want to stay with me. I want to get very close to my partner and this sometimes scares people away.

Hazan and Shaver's (1987, 1990) initial studies were followed by hundreds of others that used the simple forced-choice self-report measure to examine the interpersonal and intrapersonal correlates of adult attachment style (see Mikulincer & Shaver, 2007b, for a review). Over time, attachment researchers made methodological and conceptual improvements to the original self-report measure, improvements that included using Likert (agree-disagree) scales to rate the extent to which each of the three prototypes described one's experiences in romantic relationships (e.g., Levy & Davis, 1988); decomposition of the descriptions into separate items that formed multi-item scales (e.g., Collins & Read, 1990; Feeney & Noller, 1990); splitting the avoidant category into "dismissing" and "fearful" subtypes, thus moving from a 3- to a 4-category classification scheme (Bartholomew & Horowitz, 1991); and re-wording the

instructions and items to examine global attachment style in close relationships generally (not just romantic relationships) as well as relationship-specific styles (e.g., Baldwin et al., 1996; LaGuardia, Ryan, Couchman, & Deci, 2000). (The history of this kind of measurement is spelled out in detail in Chapter 4 of our 2007 book.)

Today, adult attachment researchers working from a personality-social perspective largely agree that attachment styles are best conceptualized as regions in a two-dimensional (anxiety-by-avoidance) space. The two dimensions are consistently obtained in factor analyses of attachment measures (e.g., Brennan, Clark, & Shaver, 1998). Moreover, Fraley and Waller (1998) demonstrated that dimensional representations of attachment style are more accurate than categorical representations. The first dimension, attachment-related *anxiety*, is concerned with a strong desire for closeness and protection, intense worries about partner availability and one's own value to the partner, and the use of hyperactivating strategies for dealing with insecurity and distress. The second dimension, attachment-related *avoidance*, is concerned with discomfort with closeness and dependence on relationship partners, preference for emotional distance and self-reliance, and the use of deactivating strategies to deal with insecurity and distress. People who score low on both dimensions are said to be secure or to have a secure attachment style. They enjoy a chronic sense of attachment security, trust in partners and expectations of partner availability and responsiveness, comfort with closeness and interdependence, and constructive ways of coping with threats and stressors.

The two attachment-style dimensions can be measured with the 36-item Experiences in Close Relationships inventory (ECR; Brennan et al., 1998), which is reliable in both the internal-consistency and test-retest senses and has high construct, predictive, and discriminant validity (Crowell, Fraley, & Shaver, 1999). Eighteen items tap the avoidance dimension (e.g., "I try to avoid getting too close to my partner," "I prefer not to show a partner how I feel deep down"), and 18 tap the anxiety dimension (e.g., "I need a lot of reassurance that I am loved by my partner," "I resent it when my partner spends time away from me"). (Slightly revised but similar versions of the scales, labeled the ECR-R, were created by Fraley, Waller, & Brennan, 2000.)

The two scales were conceptualized as independent and have been found to be empirically uncorrelated in most studies. Hundreds of studies using self-report measures of adult attachment style, some based on three categories, some on four categories, and some on two dimensions, have found theoretically coherent attachment-style variations in relationship quality, interpersonal behavior, self-esteem, social cognitions, emotion regulation, ways of coping with stress, and mental health. In the remaining sections of this chapter, we provide brief examples of these studies (for a comprehensive review, see Mikulincer & Shaver, 2007b).

Individual Differences Related to Attachment Style

Relationship Quality

In the original studies of adult attachment style, Hazan and Shaver (1987) provided initial evidence for an association between a person's attachment style (measured with the 3-category measure reproduced earlier in this chapter) and the way he or she construes experiences of romantic love. Specifically, they found that people who classified themselves as securely attached reported that their love relationships were friendly, warm, trusting, and supportive; they emphasized intimacy as the core feature of these relationships; and they said they believed in the existence of romantic love and the possibility of maintaining intense love over a long time period. People with an avoidant style described their romantic relationships as low in warmth, lacking friendly interactions, and low in emotional involvement; and they said that romantic love fades with time. In contrast, people who reported an anxious attachment style described their romantic relationships in terms of obsession and passion, strong physical attraction, desire for union with the partner, and proneness to fall in love quickly and perhaps indiscriminately. At the same time, they characterized their lovers as untrustworthy and inadequately supportive; they confessed to intense bouts of jealousy and anger toward romantic partners as well as worries about rejection and abandonment. Subsequent studies have replicated and extended these initial findings, indicating that anxious individuals are less confident of than their more secure counterparts about being able to establish a successful relationship (e.g., Carnelley & Janoff-

Bulman, 1992; Pietromonaco & Carnelley, 1994) and more likely to emphasize potential losses when thinking about relationships (Boon & Griffin, 1996).

There is good evidence that secure individuals tend to maintain more stable romantic relationships than insecure people (either anxious or avoidant) and report higher levels of relationship satisfaction and adjustment (see Mikulincer & Shaver, 2007b, for a review). This pattern has been consistently obtained in studies of both dating and married couples and cannot be explained by other personality factors, such as the "Big Five" personality traits or self-esteem (Mikulincer, Florian, Cowan, & Cowan, 2002; Noftle & Shaver, 2006). For example, Davila, Karney, and Bradbury (1999) collected data every six months for three years from newlywed couples and found that changes in husbands' and wives' reports of secure attachment predicted concurrent changes in both partners' reports of marital satisfaction. Studies of have also linked attachment security with greater intimacy (e.g., Collins & Read, 1990; Feeney & Noller, 1990), stronger relational commitment (e.g., Shaver & Brennan, 1992, Simpson, 1990), and stronger relational cohesion (Mikulincer & Florian, 1999).

Attachment style seems to be involved in several interpersonal processes that facilitate or hinder the maintenance of a satisfactory couple relationship. For example, several studies have found that higher scores along the attachment anxiety or avoidance dimensions are associated with less constructive, mutually sensitive patterns of dyadic communication (e.g., J. Feeney, 1994; Fitzpatrick, Fey, Segrin, & Schiff, 1993). Moreover, secure partners have been found to maintain more positive patterns of nonverbal communication (expressiveness, pleasantness, attentiveness) than less secure partners (e.g., Guerrero, 1996; Tucker & Anders, 1998) and to be more accurate in expressing their feelings and coding their partner's nonverbal messages (e.g., Feeney, 1994). A person's attachment style has been also found to be related to the methods couples adopt to manage interpersonal tensions and conflicts (e.g., Gaines et al., 1997; Scharfe & Bartholomew; 1995). Specifically, secure people rely more heavily on effective conflict resolution strategies – compromising and integrating their own and their partner's positions. They also display greater accommodation when responding to a partner's anger or criticism. In

contrast, insecure people tend to rely on less effective conflict resolution strategies, which leave conflicts unresolved and may even lead to conflict escalation. Whereas anxious hyperactivating strategies lead people to intensify conflict, avoidant deactivating strategies lead people to distance themselves from conflictual interactions and avoid engaging with their partner.

Attachment style is also associated with sexual motivation and sexual behavior, as would be expected based on Bowlby's (1969/1982) contention that the attachment behavioral system and the sexual behavioral system are intertwined in romantic/sexual relationships (e.g., Brennan & Shaver, 1995; Mikulincer & Shaver, 2007a; Tracy, Shaver, Albino, & Cooper, 2003). Attachment security is associated with sexual satisfaction and is conducive to genuine intimacy in sexual situations, including sensitivity and responsiveness to a partner's wishes and openness to mutual sexual exploration. In contrast, avoidant individuals tend to remain emotionally detached during sexual activities and anxiously attached individuals tend to hyperactivate sex-related worries and engage in sex primarily to placate a partner, feel accepted, and avoid abandonment (Brassard, Shaver, & Lussier, 2007; Davis, Shaver, & Vernon, 2004; Schachner & Shaver, 2004).

Insecure people's approach to sexual activities can also hinder marital satisfaction by fostering relational tensions related to fidelity, betrayal, and jealousy. For example, Schachner and Shaver (2002) found that avoidant attachment is associated with "mate poaching" – attempts to attract someone who is already in a relationship, and being open to being "poached" by others – and to low scores on a relationship exclusivity scale. In contrast, the tendency of anxious individuals to hyperactivate vigilance and concern regarding the possibility of losing their sexual partner can lead to intense bouts of jealousy, which in turn endanger relationship stability and quality. There is extensive evidence that anxiously attached individuals are prone to jealousy and tend to be overwhelmed by jealous feelings (e.g., Guerrero, 1998; Sharpsteen & Kirkpatrick, 1997). Furthermore, they tend to report high levels of suspicion and cope with them by engaging in intensive partner surveillance (Guerrero, 1998).

Interpersonal Interactions

People differing in attachment style seem to differ in the way they construe and experience interpersonal exchanges. Six studies used the Rochester Interaction Record (RIR; Reis & Wheeler, 1991) and examined attachment-style differences in daily interpersonal interactions over the course of 1 to 2 weeks (Kafetsios & Nezlek, 2002; Kerns & Stevens, 1996; Pierce & Lydon, 2001; Pietromonaco & Barrett, 1997; Sibley et al., 2005; Tidwell, Reis, & Shaver, 1996). As compared with secure people, avoidant ones reported lower levels of satisfaction, intimacy, self-disclosure, supportive behaviors, and positive emotions during daily interactions as well as higher levels of negative emotions (e.g., boredom, tension). In addition, Tidwell et al. (1996) found that more avoidant people interacted less often and for shorter times with opposite-sex partners. As compared to secure people, anxious people reported higher levels of negative emotions and feelings of rejection, especially when interacting with opposite-sex partners. Tidwell et al. (1996) also found that attachment anxiety was associated with more variability or lability in emotional responses and closeness-promoting behavior. Thus, whereas avoidant people seemed to steer clear of intimate exchanges and feel uninvolved, tense, and bored during daily interactions, more anxious people experienced and displayed greater levels of distress and more ups and downs across interactions. This finding fits well with other evidence concerning anxious people's ambivalence and the strong influence of perceived availability or unavailability of attachment figures on their emotional reactions (e.g., Bartz & Lydon, 2006; Pierce and Lydon, 2001).

Interestingly, Gallo and Matthews (2006) recently showed that insecurely attached people's negative experiences of daily interpersonal interactions tend to be manifested in cardiovascular responses. Attachment anxiety was associated with less pleasant and more conflictual interpersonal exchanges and, more important, with heightened ambulatory diastolic and systolic blood pressure during interactions with friends. Avoidant attachment was associated with heightened ambulatory diastolic blood pressure during conflictual interpersonal interactions. These findings suggest that attachment insecurities amplify stress-related physiological reactions to daily interpersonal interactions.

A person's attachment style also shapes his or her reactions to specific kinds of interpersonal exchanges. For example, there is extensive evidence documenting attachment-style differences in the ways people react to others' offenses and hurtful behaviors. These studies have consistently linked attachment security with functional, constructive expressions of anger (non-hostile protests) and attachment insecurity with less functional forms of anger, such as animosity, hostility, vengeful criticism, or vicious retaliation (e.g., Mikulincer, 1998a, Rholes, Simpson, & Orina, 1999; Shaver, Mikulincer, Lavy, & Cassidy, in press; Simpson, Rholes, & Phillips, 1996). In addition, more avoidant people tend to be less inclined to forgive to a hurtful partner and more likely to withdraw or seek revenge (Mikulincer, Shaver, & Slav, 2006). They also reported more intense feelings of vulnerability or humiliation, a stronger sense of relationship deterioration, and less empathy and understanding associated with forgiving the offending partner (Mikulincer et al., 2006).

In a recent study, Mikulincer et al. (2006) provided initial evidence that people differing in attachment style also differ in the way they react to episodes in which another person behaves positively toward them. Compared to less avoidant people, those scoring high on avoidance were less disposed to feel gratitude. Moreover, when avoidant people were asked to recall a time when they felt grateful to a relationship partner, they tended to remember more negative experiences, involving more narcissistic threats (e.g., "I felt I was risking my personal freedom," "I thought I was giving up my dignity") and distrust, and less happiness and love. These negative responses reflect avoidant people's unwillingness to depend on or be supported by others or to express emotions, such as gratitude, that can be interpreted as indicating relational closeness or interdependence.

Attachment style is also associated with a person's attitudes and behaviors during episodes in which another person expresses signs of distress and neediness. Several studies have shown that attachment security is associated with higher scores on self-report scales tapping responsiveness to a relationship partner's needs (e.g., Feeney, 1996; Kunce & Shaver, 1994) and more supportive actual behaviors toward a distressed partner (e.g., Fraley & Shaver, 1998;

Simpson, Rholes, & Nelligan, 1992). In addition, Westmaas and Silver (2001) found that attachment avoidance was associated with negative attitudes toward a person who had been diagnosed with cancer, and attachment anxiety was associated with high levels of distress during an interaction with the ill person. Mikulincer et al. (2001) and Mikulincer, Shaver, Gillath, and Nitzberg (2005) found that both dispositional and situationally augmented attachment security were associated with heightened empathy and compassion for a suffering individual.

There is also evidence that attachment security promotes prosocial values. Mikulincer, Gillath, et al. (2003) reported that chronic and contextually augmented attachment security was associated with stronger endorsement of personal values reflecting concern for other people's welfare. In addition, Gillath et al. (2005) found that avoidant attachment was negatively associated with engagement in various altruistic activities such as caring for the elderly and donating blood. Although attachment anxiety was not related to overall involvement in such volunteer activities, it was associated with more self-enhancing or self-soothing motives for volunteering (e.g., to feel better about oneself, to enjoy a sense of belonging). Overall, these studies indicate that attachment insecurities interfere with prosocial feelings and behaviors.

Attachment Sources of Self-Esteem

As mentioned earlier, Bowlby (1973) argued that children construct a model of themselves while interacting with attachment figures in times of need. During episodes of attachment-figure availability, children can easily perceive themselves as valuable, lovable, and special, thanks to being valued, loved, and regarded as special by a caring attachment figure. Moreover, they learn to view themselves as active, strong, and competent, because they can effectively mobilize a partner's support and restore emotional equanimity. In this way, interactions with responsive others and the resulting sense of attachment security become primary sources of feelings of self-worth and mastery.

Adult attachment research consistently shows that attachment security is strongly associated with positive self-representations. As compared with anxiously attached persons, secure persons report higher self-esteem (e.g., Bartholomew & Horowitz, 1991; Mickelson,

Kessler, & Shaver, 1997), view themselves as more competent and efficacious (e.g., Cooper, Shaver, & Collins, 1998), and possess more optimistic expectations about their ability to cope with stressful events (e.g., Berant, Mikulincer, & Florian, 2001; Cozarelli, Sumer, & Major; 1998). Attachment security is also associated with having a coherent, balanced, and well-organized model of self. In a series of studies, Mikulincer (1995) found that, although participants with a secure attachment style tended to recall more positive than negative self-relevant traits, they had ready cognitive access to both positive and negative self-attributes in a Stroop Task. In addition, they revealed a highly differentiated and integrated self-organization in trait-sorting tasks, and had relatively small discrepancies between actual-self representations and self-standards (ideal-self and ought-self representations). That is, attachment security not only encourages positive self-appraisals but also seems to allow people to tolerate weak points in the self and integrate them within a coherent and overall positive self-structure.

According to attachment theory, secondary attachment strategies can defensively bias insecure persons' sense of self-worth (e.g., Bowlby, 1988; Main, 1990; Mikulincer & Shaver, 2003). Whereas hyperactivating strategies negatively bias anxious people's sense of self-esteem, deactivating strategies favor defensive processes of self-enhancement and self-inflation. On the one hand, anxious hyperactivating strategies cause attention to be directed to self-relevant sources of distress (e.g., thoughts about personal weaknesses) and exacerbate by self-defeating self-presentational tendencies, which involve emphasizing helplessness and vulnerability as a way of eliciting other people's compassion and support (Shaver & Mikulincer, 2002). On the other hand, avoidant deactivating strategies divert attention away from self-relevant sources of distress and encourage the adoption of a self-reliant attitude, which requires exaggeration of strengths and self-worth.

In a direct examination of these defensive biases, Mikulincer (1998b) examined the way people differing in attachment style differ in their self-appraisals following threatening and neutral situations. Participants with an avoidant attachment style made more positive self-appraisals following threatening than neutral situations. In contrast, anxiously attached

participants reacted to threat with self-devaluation, making more negative self-appraisals following threatening than neutral conditions. Mikulincer (1998b) also noted that introducing contextual factors that inhibited defensive tendencies (e.g., a "bogus pipeline" device that measures "true feelings about things") inhibited avoidant participants' self-inflation response as well as anxious participants' self-devaluation response. That is, insecure people's self-appraisals seemed to be strategic defensive maneuvers aimed at convincing other people of the strength of the avoidant self or the neediness of the anxious self.

Attachment Sources of Person Perception

There is extensive evidence linking attachment security to positive perceptions of relationship partners. As compared to insecure individuals, securely attached people have more positive views of their romantic partners (e.g., Collins & Read, 1990), perceive their partners as more supportive (e.g., Collins & Read, 1990), and feel more trusting and affectionate toward their partners (e.g., Collins & Read, 1990; Simpson, 1990). Attachment security is also associated with positive expectations concerning partner behaviors (e.g., Baldwin et al., 1993; Baldwin et al., 1996). For example, Baldwin et al. (1993) examined the cognitive accessibility of expectations concerning partner's behaviors in a lexical-decision task and found that secure people had poorer access to negative partner behaviors (e.g., partner being hurtful) than anxious and avoidant people. Attachment security is also associated with more positive explanations of a relationship partner's behavior (e.g., Collins, 1996; Mikulincer, 1998a). Collins (1996) asked participants to explain hypothetical negative behaviors of a romantic partner and found that more secure individuals were more likely to attribute partner's negative behaviors to unintentional, unstable, and highly specific causes and less likely to provide explanations that had negative implications for relationship stability.

In contrast, insecure people tend to describe specific friends and romantic partners in negative terms and also hold negative views of humanity in general. For example, Collins and Read (1990) reported that anxiously attached people were more likely to believe that others are difficult to understand and that they have little control over their lives. These authors also found

that avoidant individuals were less likely than other people to believe that human beings are altruistic, willing to stand up for their beliefs, or able to control their lives. Subsequent studies have found that these negative views are also manifested in insecure people's lack of esteem for and acceptance of others (e.g., Luke, Maio, & Carnelley, 2004; Shaver et al., 1996), doubts about other people's trustworthiness (e.g., Cozzarelli, Hoekstra, & Bylsma, 2000), and disrespect for relationship partners (Frei & Shaver, 2002).

Secondary attachment strategies are also likely to bias person perception. Avoidant individuals, who want to maintain distance from others and view themselves as strong and perfect, are likely to increase distinctiveness, uniqueness, and devaluation of others. In contrast, anxiously attached people, who want to be loved and accepted, are likely to increase the sense of connectedness and belongingness and create a false sense of consensus. Indeed, Mikulincer, Orbach, and Iavnieli (1998) found that whereas anxious individuals were more likely than their secure counterparts to perceive others as similar to themselves, and to exhibit a false consensus bias in both trait and opinion descriptions, avoidant individuals were more likely than secure individuals to perceive others as dissimilar to them and to exhibit a false distinctiveness bias. Mikulincer et al. (1998) also found that anxious individuals reacted to threats by generating a self-description that was more similar to their partner's self-description. Avoidant individuals, in contrast, reacted to the same threats by generating self-descriptions that were less similar to their partner's self-description and by forgetting more traits that they and their partner shared.

Emotion Regulation, Coping with Stress, and Mental Health

According to attachment theory, interactions with available attachment figures and the resulting sense of attachment security provide actual and symbolic contexts in which to learn constructive emotion regulation strategies (Mikulincer & Shaver, 2003). Beyond strengthening a person's confidence in the effectiveness of proximity bids and support seeking, episodes of attachment-figure availability facilitate the adoption of other constructive regulatory strategies embodied in the "secure base script" mentioned earlier in this chapter: acknowledgment and

display of distress, positive reappraisal of the distress-eliciting situation, and engagement in instrumental problem solving.

Interactions with emotionally accessible and responsive others provide the context in which a child learns that acknowledgment and display of emotions are functional steps toward restoring emotional equanimity, and that one can feel comfortable exploring, acknowledging, and expressing one's own emotions (Cassidy, 1994). In adult attachment research, there is extensive evidence that secure people, as compared to less secure ones, tend to score higher on self-report and behavioral measures of emotional expressiveness (e.g., Feeney, 1995; Searle & Meara, 1999) and self-disclosure (e.g., Keelan, Dion, & Dion, 1998; Mikulincer & Nachshon, 1991). For example, Mikulincer and Nachson (1991) content-analyzed participants' face-to-face verbal disclosure of personal information to another person and found that secure participants disclosed more intimate and emotion-laden information than avoidant participants. Moreover, using a biographical memory task in which participants were asked to recall specific, early memories of positive and negative emotions, Mikulincer and Orbach (1995) found that secure participants had more ready mental access to painful memories of anger, sadness, and anxiety than avoidant people. However, as compared to anxious people, secure people still had better access to positive memories of happiness and experienced less automatic spread of memories of other negative emotional experiences.

According to attachment theory (Bowlby, 1988; Mikulincer & Shaver, 2003), interactions with available and supportive attachment figures promote and reaffirm optimistic and hopeful appraisals of person-environment transactions. During positive interactions with good attachment figures, children gradually become convinced that distress is manageable, external obstacles can be overcome, and restoration of emotional equanimity is only a matter of time. As a result, secure people can make self-soothing reappraisals of aversive events that help them resolve distressing episodes with less strain than experienced by less secure people. Indeed, as compared to anxious and avoidant people, secure people have been consistently found to hold more optimistic appraisals of stressful events (e.g., Berant et al., 2001; Birnbaum et al., 1997;

Mikulincer & Florian, 1998). For example, Berant et al. (2001) found that securely attached mothers of infants who were diagnosed with congenital heart defects reported more positive appraisals of motherhood-related tasks, both immediately after the diagnosis and one year later, than anxious or avoidant mothers. Six years later, the effects of insecure mothers on their children with congenital heart defects were evident in both objective and projective measures administered to the then 7-year-old children (Berant, Mikulincer, & Shaver, 2008).

Experiences of attachment-figure availability also offer opportunities to learn that one's own instrumental actions are often able to reduce distress. For example, a child learns that his or her bids for proximity alter a partner's behavior and result in the restoration of emotional equanimity. As a result, security-providing interactions strengthen a person's reliance on active, instrumental approaches to problem solving. In support of this view, secure people have been found to rely on problem-focused strategies while coping with stressful events (e.g., Lussier, Sabourin, & Turgeon, 1997; Mikulincer & Florian, 1998). This constructive approach to emotion regulation was illustrated by Mikulincer (1998a), who found that secure participants' recollections of personal experiences of anger were characterized by adaptive problem-solving actions aimed at repairing the relationship with the instigator of anger.

Attachment security promotes what Lazarus (1991) called a "short circuit of threat," sidestepping the interfering and dysfunctional aspects of emotions while retaining their functional, adaptive qualities. Efficient management of distress results in more and longer periods of positive mood, thereby rendering mood disorders, maladjustment, and psychopathology less likely. Indeed, several studies have documented positive associations between secure attachment and measures of well-being (e.g., Berant et al., 2001; Birnbaum et al., 1997) and negative associations between security and symptoms of depression, anxiety, and hostility (e.g., Cooper et al., 1998; Mickelson et al., 1997). Mikulincer, Shaver, and Horesh (2006) also found that both dispositional measures of attachment security and contextual manipulations of the sense of attachment security are associated with lower levels of post-

traumatic symptoms (e.g., intrusion of traumatic thoughts) among people who were exposed to the traumas of war or terrorism.

Unlike relatively secure people, those who are avoidant cannot readily engage in optimal problem solving because this often requires opening knowledge structures to new information, admitting frustration and possible defeat, dealing with uncertainty and confusion, and running freely through one's memories without attempting to block attachment-system activation (Mikulincer, 1997). Avoidant people often prefer to dissociate their emotions from their thoughts and actions, using what Lazarus and Folkman (1984) called "distancing coping." This requires suppression of emotion-eliciting thoughts, repression of painful memories, diversion of attention from emotion-related material, and inhibition of verbal and non-verbal expressions of emotion. For anxiously attached people, in contrast, negative emotions can be congruent with their goal of attachment-system hyperactivation. In the process of emotion regulation, anxious people tend to engage in effortful attempts to generate and intensify emotional states (Mikulincer & Shaver, 2003). These states include every emotion that plays a role in activating the attachment system – threats, dangers, and negative interactions with attachment figures. They also include emotions that emphasize a person's wounds and incompetence, such as sadness, anxiety, shame, and guilt, because these make it natural to insist on attachment figures' attention and care (Cassidy, 1994).

These tendencies of emotion regulation have now been extensively documented in empirical studies of attachment style and ways of coping with stressful events (see Mikulincer & Florian, 1998; Shaver & Mikulincer, 2002, for reviews). In these studies, higher avoidance scores are associated with higher scores on measures of coping by distancing, and attachment anxiety is associated with higher scores on measures of emotion-focused coping. For example, Mikulincer and Orbach (1995) reported that attachment avoidance was associated with a repressive coping style, Feeney (1995) reported that avoidance was related to behavioral blunting (seeking distractions when dealing with stress), and Mikulincer and Florian (1998) found that people who classified themselves as anxiously attached tended to report more frequent task-

related, ruminative worries after failing cognitive tasks than were reported by their secure and avoidant counterparts.

These emotion regulation strategies are also manifested in the ways people cope with attachment-related threats (see Mikulincer & Shaver, 2003; Shaver & Mikulincer, 2002, for reviews). For example, Fraley and Shaver (1997) found attachment-style differences in the suppression of separation-related thoughts. Participants wrote continuously about whatever thoughts and feelings they were experiencing while being asked to suppress thoughts about their romantic partner leaving them for someone else. Attachment anxiety was associated with poorer ability to suppress separation-related thoughts – more frequent thoughts of breakup following the suppression task and higher skin conductance during the task. In contrast, more avoidant people were better able than less avoidant individuals, not only to stop thinking about separation, but also to reduce the intensity of their autonomic responses to these thoughts.

In a series of studies examining the experience and management of death anxiety (e.g., Mikulincer & Florian, 2000; Mikulincer, Florian, & Tolmacz, 1990), anxious individuals were found to intensify death concerns and keep death-related thoughts active in memory. In contrast, avoidant individuals tended to suppress death concerns and dissociate their conscious claims from their unconscious anxiety. Although avoidance was related to low levels of self-reported fear of death, it was also related to heightened death anxiety on projective TAT stories.

Avoidant people's dissociative tendencies were also documented by Mikulincer (1998a), who found that avoidant individuals, as compared with secure ones, reacted to anger-eliciting episodes with lower levels of self-reported anger and higher levels of physiological arousal (heart rate). Two other studies examined access to emotions during the AAI, finding that avoidant people expressed fewer negative feelings during the interview but displayed higher levels of physiological arousal (heightened electrodermal activity; Dozier & Kobak, 1993).

Attachment theorists view insecure people's modes of emotion regulation as risk factors that reduce resilience in times of stress and contribute to emotional problems and poor adjustment (Bowlby, 1988; Mikulincer & Shaver, 2003). Indeed, a large number of studies have

shown that attachment anxiety is positively associated with global distress, depression, anxiety, eating disorders, substance abuse, conduct disorders, and severe personality disorders (see Mikulincer & Shaver, 2007b, for a review). However, for avoidance, the findings are more complex. On the one hand, a host of studies yielded no significant associations between avoidant attachment and self-report measures of well-being and global distress (see Mikulincer & Shaver, 2007b, for a review). On the other hand, several studies indicate that avoidant attachment is associated with a pattern of depression characterized by perfectionism, self-punishment, and self-criticism (e.g., Zuroff & Fitzpatrick, 1995), heightened reports of somatic complaints (e.g., Mikulincer et al., 1993), a hostile view of other people (e.g., Mikulincer, 1998a), substance abuse and conduct disorders (e.g., Brennan & Shaver, 1995; Cooper, Shaver, & Collins, 1998; Mickelson et al., 1997), and schizoid and avoidant personality disorders (e.g., Brennan & Shaver, 1998).

In addition, whereas no consistent association has been found in community samples between avoidant attachment and emotional problems, studies that focus on highly demanding and distressing events reveal that avoidance is related to greater reported distress. For example, in studies assessing mothers' long-term reactions to the birth of an infant with a congenital heart defect, avoidance, as assessed at the time of the initial diagnosis of the infant's disorder, was the most potent predictor of maternal distress 1 and 7 years later (Berant et al., 2001; Berant et al., 2008). It seems that avoidant attachment may contribute to mental health under fairly normal circumstances characterized by only mild encounters with stressors. Under highly demanding conditions, however, deactivating strategies seem to collapse, and in such cases avoidant individuals may exhibit high levels of distress and emotional problems. This conclusion is supported by two of our recent laboratory studies (Mikulincer, Dolev, & Shaver, 2004), which showed that the addition of a demanding cognitive task, which had previously been shown to interfere with mental suppression (e.g., Wegner, Erber, & Zanakos, 1993), impaired avoidant individuals' ability to block the activation of attachment-related worries. Specifically, under

high-load conditions, avoidant participants resembled their anxiously attached counterparts, exhibiting high accessibility of separation-related thoughts and negative self-representations.

Concluding Remarks

As we hope to have shown in this relatively brief but jam-packed trip through the large and still exploding adult attachment literature, Bowlby and Ainsworth's theory has been an extremely rich and seminal source of ideas for empirical research in personality and social psychology. Despite the many lines of research we have summarized, the attachment field is much broader than we have indicated, including impressive longitudinal studies running from infancy to adulthood (Grossmann, Grossmann, & Waters, 2005). The entire field is analyzed in the *Handbook of Attachment* (Cassidy & Shaver, 1999), which will be issued in a new edition in 2008. Anyone wishing to gain a reasonably complete picture of the field has a great deal of reading to do.

Although there are many well-replicated research findings in the various streams of attachment research, there are still numerous controversies and conundrums in the field. For example, a recent review of studies (Roisman et al., 2007) based on both the AAI and self-report measures of adult attachment, such as the ECR, found little convergence between the two kinds of measures, even though some of the studies revealed substantial associations (e.g., Shaver, Belsky, & Brennan, 2000). Given that both kinds of measures are based on the same theory, it is not yet clear why both yield coherent support for the theory without being strongly related to each other.

Second, it is still unclear whether categorical or dimensional measures of adult attachment make the most sense, theoretically and psychometrically. The AAI uses a categorical classification system, but the ECR and similar self-report measures are based on continuous dimensions. Roisman, Fraley, and Belsky (2007) recently showed that the AAI, especially the distinction between secure and avoidant attachment, should be scored dimensionally, an argument Fraley and Spieker (2003) made earlier with respect to Ainsworth's Strange Situation.

Third, there has always been controversy about the possible role of genes, rather than social experience alone, in determining adult attachment patterns. There is now preliminary evidence that classifications and scores on both the AAI (Torgerson, Grova, & Sommerstad, 2007) and the ECR (Crawford et al., 2007) are influenced by genetic factors, as are classifications based on the Strange Situation (Bakermans-Kranenburg & van IJzendoorn, 2007). The degree of genetic influence remains to be clarified.

Fourth, measures like the ECR are related to scores on the "Big Five" personality factors (e.g., Donnellan et al., 2008; Noftle & Shaver, 2006), and those relations are due in part to shared genetic influences (Crawford et al., 2007; Donnellan et al., 2008). Attachment anxiety, not surprisingly, is substantially correlated with neuroticism, and avoidance is often significantly negatively correlated with agreeableness and extraversion. Yet many studies of associations between attachment styles, or attachment-style dimensions, and other variables find predicted attachment effects even when scores on Big Five trait measures are statistically controlled (e.g., Erez, Mikulincer, van IJzendoorn, & Kroonenberg, 2008; Noftle & Shaver, 2006), so attachment insecurities and major personality factors are not simply redundant.

Given these controversies and many as yet unaddressed questions about personality and relationships, the future of adult attachment research seems bright. Bowlby and Ainsworth's theory is an example of the utility of grand theories even in a field that is increasingly guided by discrete, focused research questions. By putting together several key theoretical innovations and research advances of his era, Bowlby was able to retain some of the insights of Freudian psychoanalytic theory while building bridges to other theories and to empirical research findings. The same kinds of innovations and advances have been repeatedly demonstrated in post-Darwinian biology, which is perhaps the best professional model for empirical psychology. It seems likely that the broad swath of phenomena addressed by attachment theory – that is, the formation of personality in the crucible of interpersonal relationships and the shaping of such relationships by personality factors – will be repeatedly reconceptualized in future versions of what is currently called attachment theory.

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