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# An Overview of Adult Attachment Theory

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Bowlby and Ainsworth's attachment theory (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969/1982) is one of the most successful psychological theories of the past half century. It has generated thousands of published studies and scores of books. It has appealed to all kinds of psychologists, including developmentalists, clinicians, personality and social psychologists, and even psychologists who study groups and organizations (see Mikulincer & Shaver, 2007, for a broad overview). There are several reasons for the theory's success.

First, attachment theory has roots in psychoanalysis, cognitive-developmental psychology, control systems theory, and primate ethology. No other theory is so deeply and broadly grounded in earlier conceptualizations of the social aspects of the human and nonhuman primate mind.

Second, the theory was expounded unusually clearly and systematically by Bowlby in his *Attachment and Loss* trilogy (Bowlby, 1969/1982, 1973, 1980). Most other psychoanalytic theorists had written (perhaps deliberately) in a convoluted and opaque manner, and their concepts (e.g., the id, cathexes, the death instinct) were difficult for researchers to operationalize. Bowlby reviewed diverse bodies of research and theory, somehow integrating them seamlessly and retaining both the depth and complexity of psychoanalytic ideas without losing track of the need for empirical grounding. Even Bowlby's boldest speculations were solidly rooted in established science.

Third, although Bowlby was primarily a clinician and a clinical theorist rather than a researcher, his close collaboration with Ainsworth resulted in measures and research paradigms that appealed to less clinical but empirically oriented researchers. No other object relations clinical theorist established a partnership with an astute observer and laboratory researcher like Ainsworth. Hence most of the other object relations theorists' ideas (whether good or bad—a distinction that is impossible to draw without evidence) have fallen by the wayside as empirical psychology has advanced. In contrast, attachment theory has continued to guide creative research—and, with Bowlby's blessings (see, e.g., Bowlby, 1988), the theory has continued to evolve in response to new research paradigms and findings.

The present chapter is an attempt to boil down the current version of the theory, especially as it applies to adults, to a workable set of ideas and constructs that will recur throughout the remaining chapters. A much more detailed examination of the same large territory, including a nearly exhaustive literature review, can be found in our recent book (Mikulincer & Shaver, 2007). At the end of the present chapter, we briefly consider the ways in which Bowlby and Ainsworth's theory is compatible with but different from other psychological frameworks that have guided clinical practice, including Freudian psychoanalysis, behaviorism, cognitivism, and structural approaches to the analysis of social relationships.

#### THE ATTACHMENT BEHAVIORAL SYSTEM

We begin by covering the normative (species-universal) aspects of what Bowlby (1969/1982, 1973, 1980) called the *attachment behavioral system*. Attachment theorists and researchers are all familiar with a set of standard names for the theory's basic constructs, and we define and discuss these constructs in this section.

According to Bowlby (1969/1982), human infants are born with a repertoire of behaviors (attachment behaviors) "designed" by evolution to assure proximity to supportive others (attachment figures), who are likely to provide protection from physical and psychological threats, promote safe and healthy exploration of the environment, and help the infant learn to regulate emotions effectively. The child's proximity-seeking behaviors are organized by an adaptive behavioral system (the attachment behavioral system), which emerged over the course of evolution because it increased the likelihood of survival and reproduction in a species whose offspring are born with very immature abilities to acquire food, move about their environment, or defend themselves (from predators, stressors, and other dangers). This system is assumed to govern the choice, activation, and termination of proximity-seeking behaviors aimed at attaining protection and support from significant others in times of need. Although the attachment system is most important early in life, Bowlby (1988) claimed that it is active across the lifespan and is manifest in thoughts and behaviors related to proximity seeking in times of need. This claim provided the impetus for subsequent theorists and researchers to conceptualize and study adult attachment.

During infancy, primary caregivers (usually one or both parents, but also grandparents, neighbors, older siblings, day care workers, etc.) are likely to occupy the role of attachment figure. Ainsworth (1973) reported that infants tend to seek proximity to their primary caregiver when tired or ill, and Heinicke and Westheimer (1966) found that infants tend to be soothed in the presence of their primary caregivers. During adolescence and adulthood, other relationship partners often become targets of proximity seeking and emotional support, including close friends and romantic partners. Teachers and supervisors in academic settings or therapists in clinical settings can also serve as real or potential sources of comfort and support. Moreover, groups, institutions, and symbolic personages (e.g., God, the Buddha, the Virgin Mary) can be recruited as attachment figures. As a group, these real people and symbolic personages form what Bowlby (1969/1982) called a person's hierarchy of attachment figures.

In addition, mental representations of attachment figures and subroutines of the self that develop through the internalization of caring and soothing qualities of attachment figures can successfully provide a symbolic sense of comfort, support, and protection (Mikulincer & Shaver, 2004). They can also serve as internalized models of effective, loving behavior that guide a person in helping him- or herself in the absence of physically present attachment figures.

From an attachment perspective, a specific relationship partner is an attachment figure and a specific relationship is an attachment relationship only to the extent that a relationship partner accomplishes three important functions (e.g., Ainsworth, 1991; Hazan & Shaver, 1994; Hazan & Zeifman, 1994). First, the attachment figure should be viewed as a target for proximity seeking in times of stress or need, and unwanted separation from this person should elicit distress, protest, and efforts to achieve reunion. Second, the person should be viewed as a real or potential safe haven, because he or she provides comfort, support, protection, and security in times of need. Third, the person should be viewed as a secure base, allowing a child or adult to pursue non-attachment-related goals in a safe environment and to sustain exploration, risk taking, and self-expansion. In other words, interactions with attachment figures are not the same as other forms of social interaction. Attachment-related interactions are organized around the expectation of receiving protection, comfort, encouragement, or support from an attachment figure in times of need, and this protection or support is valued because it allows a person to restore emotional balance and return to effective behavior in the wider social and physical environment.

What attachment theory calls activation of the attachment system can be seen in the behavior of human infants, who tend to drop whatever they are doing (e.g., playing with interesting toys in a laboratory situation) and seek comfort and support from an attachment figure if an odd noise is heard or a stranger enters the room (Ainsworth et al., 1978). The same kind of activation is notable in the minds of adults who are subjected to conscious

or unconscious threats. For example, we (Mikulincer, Gillath, & Shaver, 2002) conducted several experiments in which we subliminally presented threatening words (e.g., *failure*, *separation*) to adults and then assessed indirectly (using reaction times in a word identification task or word-color-naming task) which names of relationship partners became more available for mental processing following the unconscious threat. It turned out that the names of attachment figures (identified with the WHOTO questionnaire, developed by Hazan & Zeifman, 1994, and adapted by Fraley & Davis, 1997, and Trinke & Bartholomew, 1997) became more available following unconscious exposure to a threatening word. The threatening words had no effect on the mental availability or accessibility of names of other people who were not viewed as attachment figures. That is, attachment figures are not just any relationship partners; they are special people to whom one turns, even unconsciously, when comfort or support is needed.

According to Bowlby (1969/1982), the natural goal of the attachment system is to increase a person's sense of security (which Sroufe & Waters, 1977, labeled *felt security*)—a sense that the world is a safe place, that one can rely on others for protection and support, and that one can confidently explore the environment and engage in social and nonsocial tasks and activities without fear of damage. This goal is made particularly salient by encountering actual or symbolic threats, or by appraising an attachment figure as not sufficiently available or responsive. In such cases, the attachment system is activated and the individual is driven to reestablish actual or symbolic proximity to an attachment figure (which attachment researchers call the *primary strategy* of the attachment system; Main, 1990). These bids for proximity persist until the sense of security is restored, at which time the attachment system is deactivated or turned down in "volume," and the individual calmly and skillfully returns to other activities. That is, the search for support, protection, and security is not only a goal in itself, but also an important foundation for attaining many non-attachment-related goals.

During infancy, the primary attachment strategy includes nonverbal expressions of neediness, such as crying and pleading, and movements (crawling, walking, extending arms) aimed at reestablishing and maintaining proximity to the caregiver (Ainsworth et al., 1978). In adulthood, this attachment strategy includes many other methods of establishing contact (e.g., talking, calling someone on the telephone, sending an e-mail or text message), as well as mentally activating soothing, comforting representations of attachment figures or even self-representations associated with these figures (Mikulincer & Shaver, 2004). Such cognitive–affective representations can infuse a person with a heightened sense of security and allow him or her to continue pursuing other goals without having to interrupt them to engage in actual bids for proximity and protection.

Indeed, several studies (e.g., Green & Campbell, 2000; Mikulincer, Hirschberger, Nachmias, & Gillath, 2001; Mikulincer & Shaver, 2001; Mikulincer, Shaver, Gillath, & Nitzberg, 2005) have shown that a variety of experi-

mental techniques designed to activate mental representations of attachment figures (e.g., subliminal presentation of the names of people nominated as attachment figures in the WHOTO questionnaire; visualization of the faces of these figures) infuse a person with positive affect; reduce hostility to outgroup members; facilitate empathy, compassion, and altruistic helping; and sustain relaxed and creative forms of exploration. They also reduce the stridency of hurt feelings among anxious individuals and open more avoidant individuals to such feelings that have been suppressed (Shaver, Mikulincer, Lavy, & Cassidy, in press), both of which are likely to be very useful clinically.

Bowlby (1988) summarized many of the adaptive benefits of proximity seeking. First, he viewed successful bids for proximity and the attainment of felt security as necessary for forming and maintaining successful relationships. Every attachment-related interaction that restores a person's sense of security reaffirms the value of closeness and strengthens affectional bonds with the relationship partner responsible for augmenting the sense of security. Moreover, successful bids for proximity and support play an important part in teaching a person how to regulate and deescalate negative emotions, such as anger, anxiety, and sadness (Bowlby, 1973, 1980). They therefore help a person maintain emotional balance and resilience in the face of stress. Bowlby (1973) also viewed attachment security as an important foundation for developing skills and competence of all kinds. A child or adult who feels threatened and inadequately protected or supported has a difficult time directing attention to free play, curious investigation of objects and environments, and affiliative relationships with peers. Extended over long periods of time, this kind of interference disrupts the development of selfefficacy, self-esteem, and positive, trusting social attitudes. Because of Bowlby's (1969/1982) emphasis on the value of felt security, he strongly rejected any theoretical formulation that equated attachment per se with excessive dependence or childishness. In his view, secure attachment provides a foundation for personal growth and mature autonomy, which should never be equated with a reduction in the importance of close relationships. In his estimation, claims that well-treated children are likely to be "spoiled" or overly dependent confuse anxious attachment with attachment per se.

### INDIVIDUAL DIFFERENCES IN ATTACHMENT SYSTEM FUNCTIONING

Attachment theory is a general theory of social and emotional development, but it would probably not have captured the attention of developmental, personality, social, and clinical researchers if it had been only that. What captured research psychologists' attention were the patterns or styles of attachment emphasized in Bowlby's theory and operationalized in Ainsworth's research on mother–infant dyads. Most of the research and clinical applications inspired by the theory deal with these individual differences.

## Attachment Figure Availability and Secondary Attachment Strategies

Besides possessing a species-universal set of operating characteristics, the attachment behavioral system includes various regulatory parameters that can be influenced by a person's history of interactions with key attachment figures. In early infancy, the effects of experience can be conceptualized in terms of simple learning principles. If a particular behavioral strategy (e.g., crying for help, protesting angrily, down-regulating distress signals) works with a particular caregiver, it will be reinforced. If a particular strategy results in punishment or caregiver withdrawal, it will become weaker and less visible (perhaps by being actively suppressed) in the infant's behavioral repertoire. The same is true for young mammals from many other species.

In the case of developing human children, however, what is learned includes not only automatic behavior patterns, but also a set of vivid memories, abstracted beliefs, and expectations about caregivers' reactions and the effectiveness or ineffectiveness of one's own possible behaviors. Because Bowlby and Ainsworth were writing at about the time of what has been called, in retrospect, the "cognitive revolution" in psychology, they were sensitive to the role played by memories, cognitive schemas, and other mental representations in regulating the attachment system. In attachment theory, these mental structures and processes are called *internal working mod*els of self and others (Bartholomew, 1990; Bowlby, 1969/1982). Over time, a person's working models, which contain both conscious and unconscious elements, become molded by the quality of interactions with attachment figures; that is, the system is "programmed" to fit these figures' characteristic behaviors, thereby increasing the likelihood of reliable expectations and effective reactions in those particular relational environments. Through this process, a person learns to adjust his or her attachment system to fit contextual demands and rely on expectations about possible access routes to protection and security. These working models are thought to be the basis of both current individual differences in attachment strategies, or styles, and within-person continuity in the operation of the attachment system over

According to Bowlby (1973, 1988), variations in working models, and hence in attachment system functioning, depend on the availability, sensitivity, and responsiveness of attachment figures in times of need. When one's key relationship partner is available, sensitive, and responsive to one's proximity- and support-seeking efforts, one is likely to experience felt security and to have greater confidence in proximity seeking as an effective distress regulation strategy. During such interactions one also acquires procedural knowledge about distress management, which we can imagine being organized around a relational script (Waters, Rodrigues, & Ridgeway, 1998). This secure-base script includes something like 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."

However, when a primary attachment figure proves not to be available, sensitive, or responsive, felt security is not attained, and the distress that initially activated proximity-seeking efforts is compounded by serious attachment-related doubts (e.g., "Can I trust others in times of need?"). These frightening, frustrating interactions also signal that the primary attachment strategy is failing to accomplish its goal and that alternative strategies must be adopted to deal with current insecurities and distress. Attachment theorists (e.g., Cassidy & Kobak, 1988; Main, 1990) have called these alternative tactics secondary attachment strategies, which (based on Ainsworth et al.'s [1978] research) are thought to take two major forms: hyperactivation and deactivation.

Hyperactivated strategies are what Bowlby (1969/1982) called protest reactions to the frustration of attachment needs. Protest often occurs in relationships in which the attachment figure is sometimes responsive but unreliably so, placing the needy individual on a partial reinforcement schedule that seems to reward persistence of energetic, strident, noisy proximity-seeking attempts, because such attempts sometimes seem to succeed. In such cases, the individual does not give up on frustrating proximity-seeking bids, but in fact intensifies them to demand or coerce the attachment figure's attention, love, and support. The main goal of these strategies is to make an unreliable or insufficiently available and responsive figure provide support and security. The way to pursue this goal seems, to the hyperactivating individual, to be to keep his or her attachment system in a chronically activated state until support and comfort is attained. This involves exaggerating appraisals of danger and signs of the attachment figure's unavailability, and intensifying one's demands for attention, care, and love. It can, paradoxically, lead to intensifying one's needs, and emotional reactions to frustrated needs, as a way of "regulating" them (even though the term emotion regulation in psychological writings usually refers to down-regulation of negative emotions).

Deactivating strategies, in contrast, are efforts to escape, avoid, or minimize the pain and frustration caused by unavailable, unsympathetic, or unresponsive attachment figures. This kind of response seems to occur in relationships with attachment figures who disapprove of and punish closeness and expressions of need, dependence, and vulnerability. In such relationships, a needy individual learns to expect better outcomes if proximity-seeking bids are suppressed, the attachment system is deactivated, and one attempts to deal with threats and dangers alone. Bowlby (1969/1982) called this strategy *compulsive self-reliance*. The primary goal of deactivating strategies is to keep the attachment system turned off or down-regulated to avoid recurring frustration and distress arising from interactions with cold, neglectful, or punishing attachment figures. Such deactivation requires

that a person deny attachment needs; avoid intimacy and interdependence in relationships; and distance him- or herself from threats that might cause unwanted and potentially unmanageable activation of attachment needs, thoughts, feelings, or behaviors.

#### INTERNAL WORKING MODELS

As mentioned earlier, Bowlby (1969/1982) theorized that important social interactions with attachment figures are internalized and stored as schemas in an associative memory network. This stored knowledge allows a person to predict the course and outcomes of future interactions with an attachment figure and to adjust future proximity-seeking bids. Repeated augmentation and editing of these models result, in most cases, in increasingly stable mental representations of self, attachment figures, and relationships. Bowlby (1969/1982) wrote about two major forms of working models: representations of attachment figures' responses and inclinations (working models of others) and representations of the self's lovability and competence (working models of self). Once the attachment system has operated for several years in the context of close relationships with key attachment figures, it includes complex representations of the availability, responsiveness, and sensitivity of these figures, as well as representations of the self's ability to elicit a partner's attention and affection when desired. These cognitive-affective structures organize a person's memories of interactions with attachment figures; guide future bids for proximity and support; and account for much of a person's sense of self, including his or her sense of being lovable and socially valuable.

During infancy and childhood, working models are based on the internalization of specific interactions, or kinds of interactions, with particular attachment figures. As a result, a child can hold multiple episodic (situationor person-specific) representations of self and others that differ with respect to an interaction's outcome (especially success or failure at gaining felt security) and with respect to the secondary strategy used to deal with insecurity during that interaction (hyperactivating, deactivating). With experience and cognitive development, these episodic representations form excitatory and inhibitory associations with each other (e.g., experiencing or thinking about an episode of security attainment activates memories of similar securityenhancing episodes and renders memories of attachment insecurities and worries less accessible), and these associations favor the formation of more abstract and generalized attachment representations with a specific partner. Then, through excitatory and inhibitory links with models representing interactions with other attachment figures, even more generic working models are formed to summarize relationships in general. This process of continual model building and integration results, over time, in a hierarchical associative network that includes episodic memories, relationship-specific models, and generic working models of self and others. Recently, Overall, Fletcher, and Friesen (2003) provided statistical evidence for the hierarchical nature of the cognitive network of attachment working models.

The attachment literature has sometimes made it seem that working models are simple and univocal with respect to important relationship issues. However, research evidence suggests—in line with Bowlby's (e.g., 1980) own ideas about multiple models, conflicting models, and conscious and unconscious models—that most people can remember and be affected by both security-enhancing interactions and security-eroding interactions with attachment figures (e.g., Baldwin, Keelan, Fehr, Enns, & Koh Rangarajoo, 1996; Mikulincer & Shaver, 2001). It therefore matters a great deal what a particular person is reminded of, or is thinking about, when attachment-related processes and outcomes are assessed by psychologists. The mental representation of one relationship may differ from the representation of another, and focusing on a particular issue (e.g., sexual infidelity) may make related previous experiences become more mentally accessible and psychologically influential than usual.

The notion that everyone has multiple attachment models organized within a hierarchical memory network raises questions about which model will be accessible (readily activated and used to guide attachment-related expectations, defenses, and behaviors) in a given situation. As with other mental representations, the accessibility of an attachment working model is determined by the amount of experience on which it is based, the number of times it has been applied in the past, the density of its neural connections with other working models, and the issues made salient in a particular situation (e.g., Baldwin, 1992; Collins & Read, 1994; Shaver, Collins, & Clark, 1996). At the relationship-specific level, the model representing the typical interaction with an attachment figure has the highest likelihood of being accessible and guiding subsequent interactions with that person. At the generic level, the model that represents interactions with major attachment figures (e.g., parents and romantic partners) typically becomes the most commonly available representation and has the strongest effect on attachment-related expectations, feelings, and behaviors across relationships and over time.

According to Bowlby (1973), consolidation of a regularly available working model is the most important psychological process accounting for the enduring, long-term effects of attachment interactions during infancy, childhood, and adolescence on attachment-related cognitions and behaviors in adulthood. Given a fairly consistent pattern of interactions with primary caregivers during infancy and childhood, the most representative working models of these interactions become part of a person's implicit procedural knowledge about close relationships, social interactions, and distress regulation. They tend to operate automatically and unconsciously and are resistant to change. Thus what began as representations of specific interactions with particular primary caregivers during childhood tend to be applied in new sit-

uations and relationships, and eventually they have an effect on attachment-related experiences, decisions, and actions even in adulthood.

Beyond the pervasive effects of attachment history on the accessibility of working models, attachment theory also emphasizes, as we have mentioned, the importance of contextual factors that influence the availability of particular models or components of models (e.g., Collins & Read, 1994; Shaver et al., 1996). Recent studies have shown that contextual cues related to the availability and responsiveness of attachment figures, as well as actual or imagined encounters with supportive or unsupportive figures, can affect which working models become active in memory, even if they are incongruent with a person's more general and more typically available working models (e.g., Mikulincer & Shaver, 2001; Mikulincer et al., 2005). In other words, the generally accessible and more generic models coexist with less typical working models in a person's associative memory network, and the less typical models can be influenced by contextual factors and become crucial to understanding a person's behavior in a particular situation. This suggests that in a clinical setting, a therapist would be wise to hold in mind both a client's general attachment orientation and the client's particular memories and reactions when specific issues become contextually salient.

### AN INTEGRATIVE MODEL OF ATTACHMENT SYSTEM FUNCTIONING IN ADULTHOOD

We have proposed a three-component theoretical model of attachment system dynamics in adulthood (e.g., Mikulincer & Shaver, 2003, 2007; Shaver & Mikulincer, 2002) as a way to integrate the immense and still growing empirical research literature on the topic (see Figure 2.1). The first component concerns the monitoring and appraisal of threatening events and is responsible for activation of the attachment system (along with associated memories, feelings, expectations, and actions). The second component concerns the monitoring and appraisal of the availability, sensitivity, and responsiveness of attachment figures and is responsible for variations in the sense of attachment security. Once the attachment system is activated, an affirmative answer to the question "Is an attachment figure available and likely to be responsive to my needs?" results in a sense of security, fosters the application of the secure-base script mentioned earlier (Waters et al., 1998), and facilitates calm and confident engagement in other life activities. The third component concerns the appraisal of the viability of proximity seeking as a means of coping with attachment insecurity and is responsible for variations in the use of hyperactivating or deactivating secondary attachment and affect-regulation strategies.

The three components can be summarized in three "if-then" propositions. First, if threatened, seek proximity and protection from an attachment figure (or some temporarily equivalent stronger, wiser, and supportive

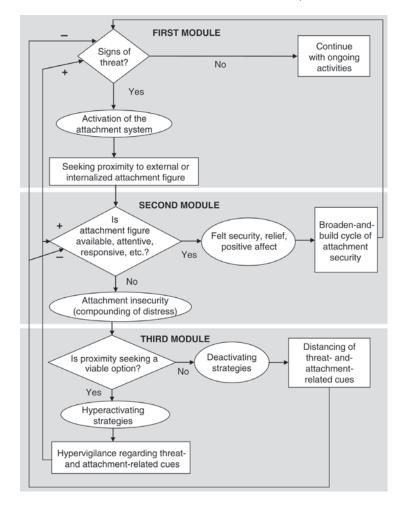


FIGURE 2.1. An integrative model of the activation and dynamics of the attachment system in adulthood. From Mikulincer and Shaver (2007). Copyright 2007 by The Guilford Press. Reprinted by permission.

actual person or symbolic personage). Second, if an attachment figure is available and supportive, relax, enjoy, and appreciate the feeling of being loved and comforted, and confidently return to other activities. Third, if an attachment figure is unavailable or unresponsive, either intensify efforts to achieve proximity and comfort (i.e., hyperactivate the attachment system) or deactivate the system, suppress thoughts of vulnerability or need, and rely steadfastly on oneself. As we explain in subsequent sections of this chapter, these propositions are crucial for understanding the relevance of attachment theory to counseling and psychotherapy.

The model is sensitive to both context and personality. On the one hand, each component of the model can be affected by specific contextual factors (e.g., actual threats, information about the availability of a specific attachment figure), which initiate a bottom-up process in a person's cognitive network of working models, activating congruent attachment representations and producing immediate changes in attachment-related cognitions and behaviors. On the other hand, each component of the model is affected by chronically accessible working models, which bias the appraisal of and reactions to threats, attachment figure availability, and proximity-seeking viability. In sum, we acknowledge the importance of both the context in which attachment cognitions, emotions, and behaviors are activated, and chronic dispositions (which can be conceptualized as personality traits) resulting from a person's attachment history.

### CONCEPTUALIZATION AND MEASUREMENT OF ATTACHMENT PATTERNS OR STYLES

According to attachment theory (Bowlby, 1988; Fraley & Shaver, 2000; Shaver & Hazan, 1993), 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 *attachment style*—the habitual pattern of expectations, needs, emotions, and behavior in interpersonal interactions and close relationships (Hazan & Shaver, 1987). Depending on how it is measured, attachment style characterizes a person's typical attachment-related mental processes and behaviors in a particular relationship (*relationship-specific* style) or across relationships (*global* style).

The concept of attachment patterns was first proposed by Ainsworth (1967) to describe infants' patterns of responses to separations from and reunions with their mothers in the Strange Situation, a laboratory procedure designed to activate the infants' attachment systems. Based on this procedure, infants were originally classified into one of three categories: secure, anxious-ambivalent, or anxious-avoidant. Main and Solomon (1990) later added a fourth category, disorganized/disoriented, characterized by odd, awkward behavior and unusual fluctuations between anxiety and avoidance.

Infants classified as secure in the Strange Situation typically react to separation from their mothers with observable signs of distress, but they recover quickly upon reunion with their mothers and return to exploring the many interesting toys provided in the Strange Situation room. They greet their mothers with joy and affection, initiate contact with them, and respond positively to being picked up and held (Ainsworth et al., 1978). Avoidant infants' reactions are quite different and seem to indicate attachment system deactivation. These infants express little distress when separated from their

mothers and may actively turn away from or avoid them upon reunion. Anxious infants' reactions are hyperactivated. These infants cry and protest angrily during separation and show angry, resistant, hyperaroused reactions (i.e., protest) upon reunion, making it difficult for them to be soothed and return to creative play.

In the 1980s, researchers from different psychological subdisciplines (developmental, clinical, personality, and social) constructed new measures of attachment style to extend attachment research into adolescence and adulthood. Taking a developmental and clinical approach, Main and her colleagues (George, Kaplan, & Main, 1984, 1985, 1986; Main, Kaplan, & Cassidy, 1985; see Hesse, 1999, 2008 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 provide oral answers to open-ended questions about their childhood relationships with parents. The interview transcripts are then used to classify respondents into three categories paralleling Ainsworth's infant typology: secure or autonomous (with respect to attachment), dismissing (of attachment), or preoccupied (with attachment). Using the AAI coding system (Hesse, 1999; Main & Goldwyn, 1984; Main, Goldwyn, & Hesse, 2003), a person is classified as secure if he or she substantiates descriptors of parents as available and responsive, and/or if his or her memories of relationships with parents are presented in a clear and coherent manner even when the memories are negative. An adult is classified as dismissing of attachment if he or she downplays the importance of attachment relationships and tends to recall few concrete experiences with parents. Adults are classified as preoccupied with attachment if they are still angry with parents and can easily retrieve negative memories, but have trouble discussing them coherently without anger or anxiety.

In addition to the three main classification categories, there is also a way to note that a person seems *unresolved* with respect to trauma or abuse, which has proven to be especially important clinically (e.g., Lyons-Ruth, Yellin, Melnick, & Atwood, 2005), and there are categories for interviews that cannot be simply classified (see Hesse, 1999). An adult's AAI classification has been shown to predict his or her infant child's attachment pattern in the Strange Situation (see van IJzendoorn, 1995, for a review), even if the interview is completed well before the infant is born. In other words, there is good empirical evidence for the intergenerational transmission of attachment patterns, and this transmission seems not to be primarily attributable to heritable aspects of personality (e.g., O'Connor, 2005).

In an independent line of research, Hazan and Shaver (1987), who wished to apply Bowlby and Ainsworth's ideas to the study of adolescent and adult romantic relationships, developed a self-report measure of attachment style. In its original form, the measure consisted of three brief descriptions of constellations of feelings and behaviors in close relationships that were intended to parallel the three infant attachment patterns identified by

Ainsworth et al. (1978). College student and community adults were asked to read the three descriptions and then place themselves in one of the three attachment categories according to their predominant feelings and behavior in romantic relationships. (See also Table 7.1 of Fraley & Phillips, Chapter 7, this volume, for additional discussion.) The three descriptions were as follows:

*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) study was 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 reviews by Shaver & Hazan, 1993; Shaver & Mikulincer, 2002). Over time, attachment researchers made methodological and conceptual improvements to the original self-report measure and reached the conclusion that attachment styles are best conceptualized as regions in a two-dimensional space (e.g., Bartholomew & Horowitz, 1991; Brennan, Clark, & Shaver, 1998; Simpson, 1990). The first dimension, which we call attachment-related avoidance, is concerned with discomfort with closeness and dependence on relationship partners and a preference for emotional distance and self-reliance. Avoidant individuals identified with self-report measures use deactivating attachment and affect-regulation strategies to deal with insecurity and distress. The second dimension, attachment-related anxiety, includes a strong desire for closeness and protection, intense worries about one's partner's availability and responsiveness and one's own value to the partner, and the use of hyperactivating strategies for dealing with insecurity and distress. People who score low on both dimensions are said to be secure or to have a secure attachment style.

The two attachment style dimensions can be measured with the 36-item Experiences in Close Relationships (ECR) scale (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 the remaining 18 items 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"). The two scales were conceptualized as independent and have been found to be empirically uncorrelated, or only weakly correlated, in most studies. Studies based on self-report measures of adult attachment style—some based on three categories, some on four categories (including two kinds of avoidance, labeled *fearful* and *dismissive*), and some on two dimensions—have confirmed theoretically predictable attachment style variations in relationship quality, mental health, social adjustment, ways of coping, emotion regulation, self-esteem, interpersonal behavior, and social cognitions (see Mikulincer & Shaver, 2003, 2007, for reviews; see Fraley & Phillips, Chapter 7, this volume, for an overview of self-report measures of adult attachment).

There is relatively little research on the heritability of the forms of attachment insecurity measured with self-report scales or the AAI, but Crawford et al. (2007) reported preliminary evidence for the heritability of attachment anxiety and no evidence for the heritability of avoidant attachment. And Torgersen, Grova, and Sommerstad (2007) reported preliminary evidence for a genetic contribution to adult twins' concordance on the AAI. This is a topic that will receive heightened attention over the next few years, because it is now possible to measure particular genes (e.g., specific polymorphisms of particular genetic alleles that affect brain development and performance).

There is still no agreement on the degrees of association between the different measures of adult attachment (e.g., Shaver, Belsky, & Brennan, 2000; Shaver & Mikulincer, 2004). Nevertheless, in our review of the broad literature on adult attachment (Mikulincer & Shaver, 2007), we have noted many cases in which similar results were obtained with the AAI and with one of the major self-report measures. For the time being, the differences between measures and associated theoretical conceptions have to be kept in mind when one applies attachment theory and research clinically. The AAI has been validated mainly through its ability to predict the quality of attachment an adult's child has to that adult in the Strange Situation. The selfreport measures have been validated mainly through their ability to predict processes and qualities related to adult relationships. The measures differ, in other words, in both their focus and their method, and some are more appropriate for particular clinical purposes than others. For clinicians interested in using the self-report measures, they can be found in the appendices of the Mikulincer and Shaver (2007) book.

### ATTACHMENT FIGURE AVAILABILITY AND THE BROADEN-AND-BUILD CYCLE OF ATTACHMENT SECURITY

We have now outlined attachment theory's main constructs, the operating characteristics of the attachment system, major individual differences in sys-

tem functioning, and methods of assessing these differences in adolescence and adulthood. We turn now to some of the personal, dyadic, and social-systemic consequences of variations in attachment system functioning. We are especially interested in this section in positive effects of attachment figure availability and the resulting sense of security on social judgments, self-image, personality development, mental health, and relationship quality. In the following section, we consider defensive biases produced by secondary attachment strategies, as well as emotional and adjustment problems resulting from these biases (see also Mikulincer, Shaver, Cassidy, & Berant, Chapter 12, this volume, for a detailed discussion of defenses).

According to our model of attachment system functioning in adulthood, discussed earlier and diagrammed in Figure 2.1, the physical and emotional availability of an actual security provider, or access to mental representations of supportive attachment figures, results in a sense of felt security and fosters what we (following Fredrickson, 2001) call a broadenand-build cycle of attachment security. This cycle is a cascade of mental and behavioral events that augment a person's resources for maintaining emotional stability in times of stress, encourage intimate and deeply interdependent bonds with others, maximize personal adjustment, and expand the person's perspectives and capacities. In the long run, repeated experiences of attachment figure availability have an enduring effect on intrapsychic organization and interpersonal behavior. At the intrapsychic level, such experiences act as a resource for resilience, sustaining emotional well-being and personal adjustment, and they create positive working models of self and others that are highly accessible in memory. At the interpersonal level, repeated experiences of attachment figure availability create a secure attachment style, which facilitates the formation and maintenance of warm, satisfying, stable, and harmonious relationships. We suspect that this process is partly responsible for the well-documented association between a good therapeutic alliance and positive psychotherapy outcomes (e.g., Martin, Garske, & Davis, 2000).

The most immediate psychological effects of having reliable access to an available, sensitive, and responsive attachment figure in times of need are effective management of distress and restoration of emotional equanimity. As a result, secure people remain relatively unperturbed during times of stress and experience longer periods of positive affect, which contribute to mental health. Indeed, several studies have found that secure attachment is positively associated with measures of well-being (e.g., Berant, Mikulincer, & Florian, 2001; Birnbaum, Orr, Mikulincer, & Florian, 1997) and negatively associated with measures of negative affect, depression, and anxiety (e.g., Cooper, Shaver, & Collins, 1998; Mickelson, Kessler, & Shaver, 1997; Roberts, Gotlib, & Kassel, 1996).

Experiences of attachment figure availability also contribute to an extensive network of positive mental representations, which plays an important role in maintaining emotional stability and adjustment. The first set of

beliefs concerns the appraisal of life problems as manageable, which helps a person maintain an optimistic and hopeful stance toward life's inevitable difficulties. Relatively secure people can appraise and reappraise stressful events in positive ways and thereby deal more effectively with them. Studies have consistently yielded positive associations between self-reports of attachment security and constructive, optimistic appraisals of stressful events (e.g., Berant et al., 2001; Birnbaum et al., 1997).

Another set of security-related mental representations concerns other people's intentions and traits. Numerous studies have shown that more securely attached people possess a more positive view of human nature (e.g., Collins & Read, 1990; Hazan & Shaver, 1987), use more positive trait terms to describe relationship partners (e.g., Feeney & Noller, 1991; Levy, Blatt, & Shaver, 1998), perceive relationship partners as more supportive (e.g., Davis, Morris, & Kraus, 1998; Ognibene & Collins, 1998), and are more likely to trust their partners (e.g., Collins & Read, 1990; Hazan & Shaver, 1987). In addition, securely attached people have more positive expectations concerning their partners' behavior (e.g., Baldwin et al., 1996) and tend to explain a partner's hurtful behavior in less negative ways (e.g., Collins, 1996).

Interactions with available and sensitive relationship partners reduce worries about being rejected, criticized, or abused. Such interactions indicate that a caring partner is unlikely to betray one's trust, react coldly or abusively to expressions of need, or respond unfavorably to bids for closeness and comfort. Numerous studies have shown that more secure individuals score higher on measures of self-disclosure, support seeking, intimacy, trust, open communication, pro-relational behavior, and relationship satisfaction (for reviews, see Feeney, 1999; Mikulincer, Florian, Cowan, & Cowan, 2002; Shaver & Mikulincer, 2006).

Interactions with security-enhancing attachment figures also strengthen a person's authentically positive sense of self-worth (Mikulincer & Shaver, 2003). That is, secure individuals generally feel safe and protected and perceive themselves as valuable, lovable, and special, thanks to being valued, loved, and regarded as special by caring relationship partners. Research consistently shows that more secure individuals have higher self-esteem (e.g., Bartholomew & Horowitz, 1991; Mickelson et al., 1997) and view themselves as more competent and efficacious (e.g., Cooper et al., 1998). Attachment security is also associated with possessing a coherent and well-organized model of self (Mikulincer, 1995). That is, attachment security not only encourages positive self-appraisals; it also seems to allow people to tolerate their own inevitable weaknesses and integrate them within a generally positive and coherent self-concept.

A relatively secure person's rich resources for dealing with stress make it less necessary to rely on psychological defenses that distort perception, limit coping flexibility, and generate interpersonal conflict. A secure person can devote mental resources that otherwise would be employed in preventive,

defensive maneuvers to growth-oriented activities. Such people can attend to other people's needs and feelings rather than (or in addition to) their own. Moreover, being confident that support is available when needed, secure people can take calculated risks and accept important challenges; doing so contributes to the broadening of perspectives and skills and facilitates personal growth. Indeed, research has shown that attachment security is associated with enhanced curiosity and learning; encourages relaxed exploration of new, unusual information and phenomena; and favors the formation of open and flexible cognitive structures, despite the uncertainty and confusion that broadening experiences might entail (e.g., Elliot & Reis, 2003; Green & Campbell, 2000; Mikulincer, 1997).

Studies have documented the "broadening" effect of attachment security on a person's willingness to provide support and care to others who are chronically dependent or temporarily in need. Specifically, attachment security is associated with higher scores on self-report measures of responsiveness to a relationship partner's needs (e.g., Kunce & Shaver, 1994) and with more supportive reactions to a distressed partner (e.g., Fraley & Shaver, 1998; Simpson, Rholes, & Nelligan, 1992). In a series of studies, Mikulincer et al. (2005) found that both dispositional and situationally augmented attachment security were associated with heightened compassion for a suffering individual and willingness to relieve the person's distress.

Overall, studies have shown that both actual and symbolic (i.e., internalized) relationships with supportive attachment figures move a person toward the ideal advocated by "positive" psychologists (e.g., Maslow, 1968; Rogers, 1961; Seligman, 2002): a calm, confident person with a genuine, deep sense of personal value; a person who is willing and able to establish intimate, caring relationships and take risks to help others and broaden his or her skills and perspectives. In other words, attachment figure availability and responsiveness act as growth-enhancing catalysts—fostering prosocial motives and attitudes, and promoting personal development and improved relationships.

As explained in subsequent chapters, the broaden-and-build cycle of attachment security and its causes, especially attachment figure availability and responsiveness, are the building blocks of Bowlby's (1988) model of therapeutic change. He believed that a therapist should serve as an available, responsive, and hence security-enhancing attachment figure for his or her clients by providing a reliable safe haven and secure base. A good therapist effectively promotes the client's felt security within the therapeutic setting. The therapist's behaving as a good attachment figure allows the client to muster the courage for self-exploration: to delve deeply into partially occluded memories and distorted wishes and feelings, while developing greater self-understanding, revising working models of self and others, and getting back on the path to personal growth. Self-exploration in psychotherapy is bound to be difficult and painful, because clients must confront conflictual and distressing experiences, recall long-forgotten or heavily

defended memories, encounter strong emotions, and explore perplexities that they have not been able to understand or cope with alone. Only with the support of an available attachment figure—in this case, taking the form of a skillful and caring therapist—can clients explore and understand deepseated fears, well-practiced defenses, and distorted perceptions that interfere with revising working models and creating the conditions for more positive self-representations, more satisfying relationships, and a more creative and enjoyable life.

## SECONDARY ATTACHMENT STRATEGIES, EMOTIONAL PROBLEMS, AND MALADJUSTMENT

According to attachment theory (Main, 1990; Mikulincer & Shaver, 2003, 2007; Shaver & Mikulincer, 2002), secondary attachment strategies (hyperactivation and deactivation) are defenses against the frustration and pain caused by attachment figures' unavailability in times of need (see Mikulincer et al., Chapter 12, this volume, for a more complete analysis of these defenses). Although these secondary strategies are initially aimed at achieving a workable relationship with an inconsistently available or consistently distant or unavailable attachment figure, they end up being maladaptive when used in later social situations where proximity, intimacy, and interdependence would be more productive and rewarding. Moreover, these strategies support distorted or constraining working models and affect-regulation techniques that are likely to interfere with psychological health, personal growth, and social adjustment.

According to Bowlby (1980, 1988), attachment insecurities are risk factors that reduce resilience in times of stress and contribute to emotional problems and poor adjustment. Anxious attachment encourages distress intensification and an uncontrollable stream of negative memories, thoughts, and emotions, which in turn interferes with cognitive organization and in some cases precipitates serious psychopathology (Mikulincer & Shaver, 2003). Although avoidant people can maintain a defensive façade of security and imperturbability, they ignore, misinterpret, or misunderstand their own emotions and have difficulty dealing with prolonged, demanding stressors that require active problem confrontation and mobilization of external sources of support (Mikulincer & Shaver, 2003). In addition, although avoidant people are able to suppress or ignore distress consciously, the distress can still be indirectly manifested in somatic symptoms, sleep problems, and other physical health problems. Moreover, avoidant individuals can transform unresolved distress into feelings of hostility, loneliness, and estrangement from others (Shaver & Hazan, 1993).

Many studies have shown that attachment-related anxiety is inversely related to well-being, and positively associated with global distress, depression, anxiety, eating disorders, substance abuse, conduct disorder, and

severe personality disorders (see Mikulincer & Shaver, 2007, for a review). With regard to avoidant attachment, many studies have found no significant associations between avoidant attachment and self-report measures of wellbeing and global distress (see Mikulincer & Shaver, 2007, for a review). However, several studies indicate that avoidant attachment is associated with particular patterns of emotional and behavioral problems, such as a pattern of depression characterized by perfectionism, self-punishment, and self-criticism (e.g., Zuroff & Fitzpatrick, 1995); somatic complaints (e.g., Kidd & Sheffield, 2005); substance abuse and conduct disorder (e.g., Brennan & Shaver, 1995; Cooper et al., 1998; Mickelson et al., 1997); and schizoid and avoidant personality disorders (e.g., Brennan & Shaver, 1998; Levy, Meehan, Weber, Reynoso, & Clarkin, 2005). In addition, whereas no consistent association has been found in community samples between avoidant attachment and global distress, studies that focus on highly demanding and stressful events (e.g., giving birth to a seriously disabled infant) reveal that avoidance is related to higher levels of distress and poorer long-term outcomes (e.g., Berant et al., 2001).

These effects of secondary attachment strategies are also important for understanding differences across clients in the client-therapist relationship and for understanding why this relationship sometimes produces therapeutic failures. As explained in more detail in subsequent chapters, attachment insecurities tend to color the client-therapist relationship—and, as in other relationships between adults, the attachment styles of both parties (client and therapist) can affect the quality of the therapeutic alliance, the client's transference reactions to the therapist, and the therapist's countertransference reactions to the client and his or her personal disclosures. Evidence is accumulating (see detailed reviews in subsequent chapters) that attachment insecurities of either the anxious or avoidant type interfere with the development of a strong and stable therapeutic alliance, intensify destructive and hostile forms of transference and countertransference, and reduce the likelihood of favorable therapeutic outcomes. Adult attachment studies also show, however, that skilled and caring therapists can work around these attachment insecurities, create a satisfactory alliance with insecure clients, increase the clients' sense of felt security, and help them achieve better adjustment and enhanced personal growth.

#### **CONCLUSIONS**

We hope this chapter provides a useful foundation for the chapters that follow. As already mentioned, the attachment literature is large and still mushrooming, so the best one can do, when wishing to clinically apply the theory and the studies it has generated, is to master the core ideas, terms, and constructs in the theory; read some of the overviews of attachment research (e.g., Cassidy & Shaver, 1999, 2008; Grossmann, Grossmann, &

Waters, 2005; Mikulincer & Goodman, 2006; Mikulincer & Shaver, 2007; Rholes & Simpson, 2004; Simpson & Rholes, 1998); and consider how the other chapter authors in this volume are using attachment theory and research in clinical practice.

One of the reasons for attachment theory's remarkable popularity and influence is that Bowlby and his successors acknowledged insights from other therapeutically useful theories, integrated them conceptually, and illustrated the value of empirical research for clinical theory and practice. In closing, we wish to say something about the compatibility of attachment theory and other classical theoretical frameworks that have influenced clinical work.

First of all, Bowlby was a psychoanalyst; although he eventually reworked much of psychoanalytic theory, he continued to emphasize the childhood origins of personality and psychopathology, the reality of unconscious defenses, and the importance and complexity of close relationships. In our own work (e.g., Banai, Mikulincer, & Shaver, 2005; Berant, Mikulincer, Shaver, & Segal, 2005; Mikulincer et al., 2004), we have found good empirical support for some of Bowlby's more psychodynamic hypotheses. Thus attachment theory and research continue to benefit from the insights of generations of psychoanalysts. It should be possible for psychoanalytically oriented clinicians to benefit from what has been learned so far by attachment researchers.

Second, Bowlby and Ainsworth's insights about how attachment patterns arise in infancy, as the infant adapts to its primary caregiver's (or caregivers') parenting behavior, are highly compatible with a behavioral approach to clinical work. The secure attachment pattern or style is rooted in experiences in which a caregiver responded favorably to a child or adult's primary attachment strategy—seeking protection, comfort, or encouragement in response to difficulties or threats. During infancy, this pattern clearly arises before a child has much in the way of cognitive or linguistic capacities, so it is likely to be due to a combination of natural (instinctual) behavioral tendencies and reinforcement contingencies.

The avoidant attachment pattern or style is rooted in experiences in which the natural, instinctual tendency to seek proximity and protection when distressed was met with punishment, distancing, or neglect. The avoidant infant is forced to learn, without complex thoughts or language, to suppress his or her attachment behavior in order to receive adequate or minimal care. With development, this suppressive, avoidant, self-reliant style takes on cognitive richness, but it would be a mistake to think of it as overly cognitive at, say, the age of 10 months.

The anxious attachment pattern or style is rooted in parental anxiety and inconsistency. The anxious infant feels rewarded for hyperactivating its attachment system—protesting loudly when a caregiver is self-preoccupied, distracted, or inattentive; crying loudly and persistently; being vigilant about possible separations and loss of support. Again, this pattern can be greatly elaborated during social and cognitive development, but the core behavioral

tendencies were probably acquired before much in the way of thought or language was available. Thus therapeutic change may be partly a matter of extinction, relearning, and new reinforcement patterns that do not necessarily require thought or linguistic formulations.

To the extent that the adult forms of the major attachment patterns, or styles, involve cognitive "working models," ideas advanced by cognitive therapists beginning with Ellis (1962) and Beck (1976) are easy to integrate with attachment theory. Each major attachment pattern is characterized by a particular kind of self- and other-appraisal, and changing the pattern can be accomplished in part by changing key beliefs and schemas through identifying dysfunctional cognitions, teaching constructive alternatives, roleplaying the alternatives, modeling them in one's own therapeutic comments, and so on (Mikulincer & Shaver, 2007).

One other approach to psychotherapy has evolved from basic researchers' analyses of the structure of dyadic interactions. Many different theorists and researchers (e.g., Benjamin, 1994; Kiesler, 1996; Leary, 1957) have noticed that dyadic interactions can be characterized in terms of two bipolar dimensions: warm–cold and dominant–submissive. Similarly, important personality traits can also be arrayed in a circular pattern (called a *circumplex*; Wiggins, 1979), such that people can be described as relatively dominant or submissive, warm or cold, dominant and cold versus warm and submissive, and so on. Moreover, interpersonal difficulties that cause people to enter psychotherapy can be arrayed around the same circumplex. Some people are too dominant or too submissive for their own good, and being too warm and expressive or too cool can damage relationships both at home and in the workplace.

Bartholomew and Horowitz (1991) used a circumplex model of interpersonal problems in conjunction with an early four-category measure of adult attachment style to see what kinds of interpersonal problems were associated with particular patterns of adult attachment. They found that secure individuals had relatively few interpersonal problems, and that the problems they did have were fairly evenly distributed around the circumplex. In contrast, avoidant people generally had problems with nurturance (being overly cold, introverted, or competitive), and anxious people had problems related to their insistent demands for love and support (being overly expressive). Fearfully avoidant participants (those who were high on both the anxious and avoidant attachment dimensions) had problems associated with lack of dominance (i.e., being overly submissive and exploitable). In other words, there was a systematic pattern of interpersonal problems associated with each attachment style.

To us, the scientific and therapeutic advantages of attachment theory are numerous. First, while clarifying psychoanalytic insights by translating them into testable propositions about cognition, emotion, and behavior, attachment theory continues to take childhood antecedents and psychodynamic defenses seriously. This recovers much of the viable psychodynamic "baby" thrown out with the cloudy theoretical "bathwater" by behavioral and cog-

nitive theorists and researchers. Second, attachment theory is inherently social. Unlike behaviorally oriented clinical theories, which arose primarily from laboratory experiments involving rats and pigeons, attachment theory resulted from looking carefully at human and nonhuman primate infant—mother dyads. Its key concepts—attachment, emotion regulation aided by attachment figures, working models of self and relationship partners—are therefore easy to apply in dyadic psychotherapy and couple therapy. Unlike cognitive therapies (which arose during the "cognitive revolution," before cognitive insights were adopted by social psychologists), the cognitions emphasized in attachment theory are ones that arise and derive from dyadic interactions. They are therefore not just cool, "dry" beliefs or cognitions; they are emotionally hot, hormonally "wet" beliefs, worries, and expectations generated in the context of highly charged social relationships. These cognitions are likely to be of utmost importance in psychotherapy.

Third, unlike circumplex analyses of dyadic relationships, which (like attachment theory) are highly social in focus, attachment theory emphasizes relationships and interactions in which one person seeks proximity, protection, comfort, and support from another. These relationships and interactions are likely to have special features that make them somewhat distinct from other kinds of relationships and interactions. Moreover, circumplex models do not explain why the two dimensions of dyadic interactions are important. Attachment theory, rooted in primate ethology and infant cognitive-developmental psychology, emphasizes the human need for affection and support and the fundamental influence of one person on another—not because one person is submissive and the other is dominant, but because one is vulnerable, at least at the moment, and the other is a potential safe haven and secure base.

Finally—perhaps because of Bowlby's eclecticism, amazingly broad reading, and interest in a wide range of empirical studies (ranging from infant cognitive-developmental studies to community psychiatry studies of adult depression)—attachment research has been methodologically diverse and has benefited from the use of projective, observational, self-report, and physiological measures, as well as from cognitive and social-cognitive research paradigms. The research literature on attachment is exceptionally rich and conducive to diverse clinical applications. We hope that this book encourages such applications, which can then be rigorously assessed with appropriate research methods. Eventually we will have theoretically sound and truly evidence-based clinical practices, working in harmony with a research literature that is sensitive to clinical discoveries and applications.

#### RECOMMENDATIONS FOR FURTHER READING

Cassidy, J., & Shaver, P. R. (Eds.). (2008). Handbook of attachment: Theory, research, and clinical applications (2nd ed.). New York: Guilford Press.—The

- second edition of this handbook summarizes classic and recent contributions to attachment theory, and provides up-to-date reviews of many basic and applied research areas influenced by the theory.
- Grossmann, K. E., Grossmann, K., & Waters, E. (Eds.). (2005). Attachment from infancy to adulthood: The major longitudinal studies. New York: Guilford Press.—A major accomplishment of attachment researchers has been tracking the correlates and sequelae of attachment orientations from infancy through childhood and into adulthood; this volume summarizes the major longitudinal studies, some spanning 20 years.
- Mikulincer, M., & Shaver, P. R. (2007). Attachment in adulthood: Structure, dynamics, and change. New York: Guilford Press.—This book summarizes research on adult attachment and contains an in-depth discussion of ideas and findings mentioned in this chapter.

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