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Attachment Theory Applied: Fostering Personal Growth through Healthy Relationships.
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CHAPTER 1

An Overview of Attachment Theory and Research

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Attachment theory—a psychological theory concerning the formation, maintenance, and breaking of emotional bonds between people—has had an enormous influence on psychological research in the areas of child–parent relationships and other kinds of close relationships, including friendships and romantic relationships. More recently it has been extended into domains as diverse as education, organizational management, and religion. The measures and basic research methods created in the attachment field are being adapted for practical use in a variety of therapeutic, educational, and management settings.

The purpose of this book is to examine a diverse set of examples of such applications, evaluating them in relation to both the present state of the theory and the goals of the application designers. In each area of application, we also examine evidence (whether existing or still needed) regarding the quality of the applications' results. We begin this chapter with a brief history of attachment theory and research, which should allow the reader to understand how each kind of application is rooted in basic theory and research, and how all of the diverse applications share a core framework, which can be used to create future applications.

Plan of the Book

In his exposition of attachment theory, John Bowlby (1973, 1980, 1969/1982) emphasized the importance of positive interactions with caring, loving relationship partners that, over time, create a persisting sense of attachment security (confidence that one is worthy of love and respect, and that other people will be available and supportive if needed). Bowlby viewed this sense of security as important for physical and mental health, interpersonal relationship quality, and ethical, prosocial behavior. Building on his ideas and on research begun by Mary Ainsworth and her students (Ainsworth, 1967; Ainsworth et al., 1971, 1978), we (Mikulincer & Shaver, 2003) proposed that interactions with caring, loving relationship partners foster a *broaden-and-build* cycle of attachment security, which increases resilience and expands a person's perspectives and capabilities. (The term *broaden-and-build* is

borrowed from Barbara Fredrickson's 2001 theory of the evolutionary function of positive emotions.)

By relying on socially sensitive, responsive, and supportive relationship partners, a secure person can remain relatively unperturbed in times of stress, relying on a reservoir of positive beliefs about other people's benevolence and one's own competence and worth. Feeling safe and protected (having a "safe haven," in attachment theory's terms), a secure person can devote mental and physical resources to constructive, useful purposes (e.g., exploration, play, learning) rather than expend them on worry and psychological defenses. Moreover, being confident that support is available when needed (what attachment theorists call a "secure base for exploration"), secure individuals can take calculated risks, experiment with alternative possibilities and make mistakes, and engage in challenging activities that broaden their skills and perspectives.

During the past 30 years, attachment researchers have provided extensive cross-sectional, prospective–longitudinal, and laboratory-experimental evidence concerning the psychological benefits of possessing a sense of attachment security and of experiencing the broaden-and-build effects of actual and imagined interactions with caring, loving others. (We include "imagining" such interactions because people often think about, reminisce about, and dream about interactions with security providers, including ones who are no longer around or who "exist" in a spiritual realm or dimension; Mikulincer & Shaver, 2007.) Studies conducted around the world have largely supported the universality of the broaden-and-build effects of attachment security (see Erdman et al., 2010, for review chapters), but much of the research, beginning with Bowlby, has been based on White European and North American samples (Dawson, 2018), so we still need more research involving non-White nations and minorities, especially African Americans, in the United States (Stern et al., 2022). (It's worth mentioning that Ainsworth's first book, published in 1967, was based on an observational study in Uganda, so her understanding of attachment, elaborated in studies of White American mother–infant dyads, was informed by research in Africa.)

The large body of subsequent research on attachment, especially in its adolescent and adult forms, was reviewed and integrated in our 2016 book *Attachment in Adulthood* (Mikulincer & Shaver, 2016; see also Cassidy & Shaver, 2016). This body of research and its contribution to the further elaboration of attachment theory has encouraged researchers and practitioners in various fields to apply the theory in the development of interventions to foster people's well-being and successful relationships across the lifespan.

The proposed interventions are intended to enhance people's sense of attachment security and support the resulting broaden-and-build effects. These interventions expose people to positive interactions with a responsive and caring relationship partner either by priming thoughts and memories of such interactions or by training an actual relationship partner to become more responsive, compassionate, and caring in times of need (i.e., to serve as a "safe haven") and to provide a "secure base" for exploration. Evidence is accumulating that such interventions can produce positive changes in mental health, relationship quality, prosocial behavior, and the pursuit of personal goals.

Attachment theory and research have been successfully applied in diverse interventions in the domains of parent–child relationships, friendships, couple and family relationships, teacher–student relationships, and therapist–client relationships. Numerous studies indicate, or at least suggest, that the same principles and methods can be applied in other life domains such as health and medicine, management and organizational behavior, and intra- and intergroup relations. The time has arrived, therefore, for a book that integrates the growing body of knowledge concerning applications of attachment theory, organizes

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this knowledge for a diverse audience, and provides a foundation for new investigators and professionals in various fields who wish to apply what has been learned so far. In this book, we systematically survey and evaluate existing attachment-based interventions and provide a theoretical and empirical foundation for applying what has been learned to the many life domains that can benefit from security-enhancing interventions.

After briefly reviewing attachment theory's core concepts in the present chapter, and then summarizing evidence for the broaden-and-build cycle of attachment security in the next chapter, we devote the remaining chapters to analyzing and evaluating existing attachment-based interventions and proposals for new applications, including ones relevant to higher levels of social organization (e.g., businesses, governments).

Specifically, in Chapter 3, we review laboratory interventions, labeled "security priming" interventions, which momentarily enhance a person's sense of attachment security and thereby improve emotion regulation, personal well-being, goal pursuit, and prosocial behavior. In Chapters 4–10, we consider interventions designed to enhance attachment security in parent–child relationships, couple and marital relationships, counseling and psychotherapy relationships, group relationships, and teacher–student relationships. In all of these domains, the goal is to encourage a key relationship partner (e.g., parent, spouse, psychotherapist, teacher) or a group to be more effective at providing security. With respect to each of these domains, we explain the theoretical and research foundation for the interventions, review existing intervention programs, evaluate the evidence for their effectiveness, and propose new avenues for research and application. In Chapters 11 and 12, we turn to additional life domains in which applications of attachment theory may be useful, such as medicine and health care, and business management and organizational behavior.

Our goals are to showcase what has been accomplished so far in applying attachment theory and research, and to encourage experts and practitioners in the fields of counseling, psychotherapy, education, medicine, social work, public health, leadership, and business administration to develop additional or improved attachment-based interventions.

But before examining the many promising applications of attachment theory, we need to provide, in the remainder of this chapter, a brief overview of attachment theory and research so readers can understand the theory that is being put into application. We begin with an account of the origins of attachment theory during the 1960s and 1970s in the work of John Bowlby and Mary Ainsworth. We then explain how we became involved with extensions of the theory in the 1980s. Next, we describe the theory itself, placing special emphasis on both (1) its normative (species-general) components (e.g., the attachment behavioral system, the interplay of this system with other behavioral systems) and (2) its individual-differences components (e.g., working models of self and others, attachment orientations or styles). Finally, we consider the development of a person's attachment orientation or style from infancy to adulthood, and its stability and change across the lifespan.

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The Origins of Attachment Theory

Attachment theory was created by John Bowlby, a British psychoanalyst, and then greatly strengthened by the theoretical and empirical contributions of Mary Ainsworth, an American child-developmental psychologist. As we explain later in this chapter, Bowlby's theory and Ainsworth's theoretical contributions and research findings were extended into adult personality and social psychology by Hazan and Shaver (1987). Their work has generated an enormous and sprawling research and intervention literature over the last 35 years.

John Bowlby

Bowlby was born in England, in 1907, to economically comfortable and well-educated parents. His father was a physician, and John eventually became one as well—a psychiatrist. While studying to become a child psychiatrist, Bowlby undertook psychoanalytic training with a famous mentor, Melanie Klein, and was psychoanalyzed for several years by Joan Riviere, a close associate of Klein. From these mentors, Bowlby learned about the importance of early infants' interactions with their primary caregivers; the tendency of troubled children to deal with traumatic separations and losses from caregivers by defensively excluding these painful experiences from conscious memory; and the arousal of anxiety, anger, and sadness during frustrating parent–child interactions. Despite absorbing many of Klein's and Riviere's ideas, however, Bowlby rejected their exclusive emphasis on children's fantasies at the expense of ignoring children's actual experiences, and on sexual drives rather than other social motives.

Attachment theory grew out of Bowlby's experiences as a family therapist at the Tavistock Clinic in London, where social and family relationships were considered alongside individual psychodynamics as causes of psychological and social disorders. Bowlby was also influenced by preparing a report for the World Health Organization on children who were orphans following World War II.

As Bowlby's clinical observations and insights accumulated, he became increasingly interested in explaining what, in his first major statement of attachment theory, he called "the child's tie to his mother" (Bowlby, 1958). In formulating the theory, he was influenced by Konrad Lorenz's (1952) ideas about "imprinting" in precocial birds and the writings of other ethologists and primatologists, including the primatologist Robert Hinde (1966). These authors, along with the American psychologist Harry Harlow (1959), had begun to show that immature animals' ties to their mothers were not due simply to classical conditioning based on feeding, as learning theorists (and, using different language, psychoanalysts) had thought. Instead, Bowlby viewed the human infant's reliance on, and emotional bond with, its mother to be the result of a fundamental instinctual behavioral system that, unlike Freud's sexual libido concept, was viewed as social-relational rather than sexual.

Bowlby expanded his preliminary articles and lectures about core aspects of attachment into three substantial books, *Attachment and Loss*, Volumes 1, 2, and 3, which are now recognized as landmarks of modern psychology, psychiatry, and social science. The first volume, *Attachment*, was published in 1969 and revised in 1982; the second, *Separation: Anxiety and Anger*, was published in 1973; and the third, *Loss: Sadness and Depression*, was published in 1980. These comprehensive volumes were accompanied in 1979 by a published collection of Bowlby's lectures, *The Making and Breaking of Affectional Bonds*, and were supplemented in 1988 by *A Secure Base*, a book devoted to applying attachment theory and research to psychotherapy. Bowlby died in 1990, having won many professional awards.

Mary Ainsworth

Bowlby's major collaborator, Mary Salter Ainsworth, was born in Ohio in 1913, and received her PhD in developmental psychology from the University of Toronto in 1939, after completing a dissertation on security and dependency that was inspired by her advisor William Blatz's security theory. In her dissertation, *An Evaluation of Adjustment Based on the Concept of Security* (1940), Ainsworth mentioned for the first time what eventually became a central part of attachment theory, the secure-base construct, which emphasized the importance of parents' provision of what Ainsworth called a "secure base" from which children can

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explore the world with the confidence that parents' support and protection will be available when needed.

When she moved to London with her husband, Ainsworth answered a newspaper ad for a research position with Bowlby, without having known about him or his work beforehand. Part of her job was to analyze films of children's separations from mother. These films convinced her of the value of behavioral observations, which were the centerpiece of her contributions to attachment research. When her husband decided in 1953 to advance his career by undertaking cultural research in Uganda, Ainsworth moved there as well and began an observational study of mothers and infants, whom she visited every 2 weeks for 2 hours of observation over a period of several months. Eventually, after returning to North America and becoming a faculty member at Johns Hopkins University, in 1967 Ainsworth published a book entitled *Infancy in Uganda: Infant Care and the Growth of Love*.

One of the intellectually and historically significant features of Ainsworth's 1967 book was an appendix that sketched different patterns of infant attachment. Although these patterns were not precisely the same as the three attachment types for which Ainsworth later became famous (called *secure, anxious,* and *avoidant* in our work; see Ainsworth et al., 1978, for the original descriptions and labels), some definite similarities are evident. The three main patterns of attachment delineated in the 1978 book were based on its 1967 predecessor, but they were greatly refined by intensive studies of White middle-class American infants in Baltimore, Maryland. In these American studies, Ainsworth and her students recorded detailed home observations during infants' first year of life and supplemented them with a new laboratory assessment procedure, the Strange Situation.

Ainsworth et al.'s 1978 book explains how to code an infant's behavior with mother in the Strange Situation, and also shows how the three major forms of infant attachment are associated with particular patterns of maternal behavior at home. The measures and ideas advanced in the 1978 book, taken in conjunction with Bowlby's theoretical books on attachment, separation, and loss, form the backbone of all subsequent discussions of normative attachment processes and individual differences in attachment behavior. Having published numerous pathbreaking papers, won many awards, and mentored several central figures in the attachment field, Mary Ainsworth died in 1999.

Our Extension of Attachment Theory into Social Psychology

By the time we began to use attachment theory, in the late 1980s, it had been extensively tested in studies of infant and child development, and Ainsworth's infant attachment categories were well known. For various reasons, including (we believe) the increasing number of women entering the field of social psychology (Elaine Hatfield and Ellen Berscheid being two prominent and highly influential examples), the increasing divorce rate in the United States, and a concern with growing prevalence of loneliness in industrialized societies (e.g., Peplau & Perlman, 1982), social psychologists were beginning to concern themselves with the formation, maintenance, and dissolution of close relationships. This concern was manifested in the creation of new professional organizations focused on the study of romantic and marital relationships and in a landmark 1983 book, *Close Relationships*, edited by Harold Kelley, one of the most prominent social psychologists of his (or any other) generation, along with Ellen Berscheid and seven others. Suddenly the study of love was not merely professionally acceptable, it was highly visible, even in such top-tier journals as *Psychological Review* (e.g., Sternberg, 1986).

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A problem during that period, at least in our estimation, was the prominence in social psychology of the *attitude* construct, which had concerned the field for decades. Its familiarity caused researchers, at first, to consider love to be just another attitude (e.g., Hendrick & Hendrick, 1986). Little consideration was given to the fact that romantic and parental love had existed for millennia, and that the inherent importance of love, separation, and loss could be seen in the lives of both humans and nonhuman primates (Bowlby, 1980; Harlow, 1959). These were the days before evolutionary perspectives became popular in social psychology. Moreover, social psychologists were generally unaware that psychoanalysts from Freud to Bowlby had written a great deal about the psychodynamics of filial and romantic love, and about the relation of romantic love to sexuality. We were unusual among social psychologists in having been deeply interested in psychoanalysis since first encountering it during our undergraduate years.

In our view, anyone who pays close attention to what goes on in people's lives, or who reads romantic novels or poems or studies art or film, realizes that the issues raised by psychoanalysts, beginning with Freud, are crucial: sexual attraction and desire; romantic love and longing; the development of personality in the crucible of family relationships; painful, corrosive emotions such as anger, fear, jealousy, grief, hatred, shame, and remorse, which contribute to intrapsychic conflicts, defenses, and psychopathology and to intergroup hostility and war. Given our personal interests, social psychology at first seemed superficial compared with psychoanalysis. Nevertheless, social psychology's strong point—which was the fatally weak point of psychoanalysis—was the use of experimental methods and creative experimental manipulations and interventions to test theory-based hypotheses. Psychoanalytic theorists seemed capable of endlessly inventing hypothetical constructs and invisible mental processes without being constrained by operational definitions, sound psychometrics, or replicable empirical methods. Fortunately, social psychology was capable of rendering certain aspects of psychodynamic theories testable.

Both of us began our careers as experimental researchers pursuing then-popular topics in social and personality psychology (stress and learned helplessness in Mikulincer's case, self-awareness and fear of success in the case of Shaver), but our interest in psychoanalytic theory never waned. When we encountered Bowlby's books, we realized that a psychoanalytic theorist could incorporate and integrate the full range of scientific perspectives on human behavior, seek empirical evidence for psychoanalytic propositions, and amend or reformulate psychoanalytic theory based on empirical research. Ainsworth's development of the laboratory Strange Situation assessment procedure, which allowed her to systematically classify infants' attachment behavior into clear patterns and relate them to reliable observations of parent–child interactions at home, added to our confidence that extending attachment theory and its research methods into the realm of adolescent and adult love relationships might be possible and fruitful.

In the mid-1980s, Shaver was studying adolescent and adult loneliness (e.g., Rubenstein & Shaver, 1982; Shaver & Hazan, 1984) and noticing both that attachment theory was useful in conceptualizing loneliness (e.g., Weiss, 1973) and that patterns of chronic loneliness were similar in certain respects to the insecure infant attachment patterns identified by Ainsworth and her colleagues in the Strange Situation (1978). Building on this insight, one of Shaver's doctoral students, Cindy Hazan (now a faculty member at Cornell University), wrote a seminar paper suggesting that attachment theory could be used as a framework for studying romantic love—or "romantic attachment," as she and Shaver called it in their initial article on the topic (Hazan & Shaver, 1987).

This article caught the eye of Mikulincer, who had become interested in attachment theory while studying learned helplessness, depression, combat stress reactions, and

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posttraumatic stress disorder in Israel. He noticed similarities between (1) certain forms of helplessness in adulthood and the effects of parental unavailability in infancy; (2) intrusive images and emotions in the case of posttraumatic stress disorder and the anxious attachment pattern described by Ainsworth et al. (1978) and Hazan and Shaver (1987); and (3) avoidant strategies for coping with stress and the avoidant attachment pattern described by these same authors. In 1990, Mikulincer, Florian, and Tolmacz published a seminal study of attachment patterns and conscious and unconscious death anxiety, one of the first studies to use the preliminary self-report measure of adult attachment patterns devised by Hazan and Shaver (1987), and the first to show its ability to illuminate unconscious mental processes.

From then on, both of us continued to pursue the application of attachment theory in studies of adults' emotions, emotion-regulation strategies, and close relationships, noticing that we were both interested in the experimental study of what might be called attachment-related psychodynamics: the kinds of mental processes, including intense needs, powerful emotions and conflicts, and defensive strategies, that had captivated the attention of both Freud and Bowlby. We decided to pool our efforts to craft a more rigorous formulation of adult attachment theory (e.g., Mikulincer & Shaver, 2003; Shaver & Mikulincer, 2002), test the model in many different ways, including the use of priming techniques developed by cognitive psychologists, and incorporate within our theory some of positive psychology's emphasis on personal growth and social virtues (e.g., Seligman, 2002). Today, adult attachment theory, as summarized in our 2016 book, is one of the leading approaches to research on social relationships, personality processes, and the psychodynamic nature of the human mind.

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Normative Aspects of Attachment Theory

Having considered the biographical backgrounds of Bowlby and Ainsworth, as well as our own histories, we can turn to attachment theory itself, placing special emphasis on Bowlby's notion of the "attachment behavioral system." There are two crucial parts of attachment theory, one of which is called "normative" because it deals with normal, universal features of the attachment behavioral system, and the other of which concerns individual differences in attachment-related mental representations and behavioral orientations. We begin our account of the theory by focusing first on its normative component.

The Attachment Behavioral System: Goals, Activation, and Functioning

One of the core tenets of attachment theory (Bowlby, 1973, 1980, 1969/1982) is that human beings are innately equipped with a psychobiological system (the *attachment behavioral system*) that motivates them to seek proximity to caring and protective others (whom Bowlby [1982] called *attachment figures*) in times of danger, threats, and challenges. The main function of this species-universal, biologically evolved neural system, or "program," is to protect people from danger and sustain their healthy development (especially during infancy and early childhood) by motivating them to maintain proximity to another person who is "stronger and wiser," and who can effectively provide them with safety, comfort, assistance, and encouragement. In Bowlby's view, the innate propensity to seek proximity and support from attachment figures in times of need evolved in relation to the prolonged helplessness and dependence on caregivers of human infants who cannot defend themselves from predators and other dangers. According to Bowlby's evolutionary reasoning, infants who

maintained proximity to a supportive caregiver were more likely to survive and eventually to reproduce, causing genes that fostered seeking proximity and support from attachment figures to be selected for and passed on to subsequent generations.

In Bowlby's (1969/1982) view, assuring or maintaining proximity to an attachment figure (*attachment behaviors*) in times of need is not a goal in itself but only a means for sustaining or restoring a sense of safety and security—the "set goal" of the attachment system. This inner sense is rooted in beliefs that the world is generally safe, that one is loved and cared for, and that one can explore the world and move away from attachment figures with the confidence that they will be available if needed.

Elaborating the theory, Ainsworth (1991) proposed that people turn to attachment figures for two main security-related provisions: a physical and emotional *safe haven* (i.e., protection, distress alleviation, comfort, and reassurance) and a *secure base* from which to explore, learn, and thrive in a confident and relaxed manner. In her view, the set goal of the attachment system is twofold: (1) to feel protected and comforted by an attachment figure when threatened and (2) to feel that one's strivings for competence and autonomy are encouraged and supported by this figure. In other words, when working properly, attachment behavior can restore emotional equanimity following threats and dangers, and can sustain safe exploration when one is presented with novel opportunities and challenges. Attachment behavior can move a person from distress to relief (its safe-haven function) but then, of special importance in this book, also move him or her beyond safety to exploration and further development (attachment's secure-base function).

Bowlby discussed several kinds of stimuli and situations that trigger proximity and support seeking: environmental threats that endanger a person's survival; "natural clues of danger" (stimuli that are not inherently dangerous but increase the likelihood of danger; e.g., darkness and loud or strange noises); physical illness, fatigue, and pain; anticipated or actual loss of personal resources (e.g., status, money, self-esteem); daily hassles, life stressors, and traumatic events; and reminders of mortality. After a particular person or group becomes an actual or potential safe haven and secure base, any sign of this figure's disapproval, criticism, or rejection can trigger efforts to restore proximity and support. These proximity-seeking efforts can also be triggered by impending or actual separation from, or loss of, an attachment figure (Bowlby, 1973, 1980). In other words, the possible unavailability of an actual or potential attachment figure can, like other dangers, activate the attachment system (Bowlby, 1973, 1982).

Besides being activated by threats and dangers, proximity seeking can also be activated when a person encounters new opportunities for exploration, learning, and personal development but feels afraid, uncertain, or ambivalent about them (Ainsworth, 1991). In such cases, a person can use an attachment figure for support, and as a reference point, or a *secure base*, for courageously moving forward. Serving as a secure base, an attachment figure can provide both encouragement to tackle new challenges and a safe place to which to retreat if a challenge becomes too difficult, threatening, or demoralizing (Ainsworth, 1991). People of all ages seem to seek a secure base whenever they need help in taking advantage of challenging opportunities or wish to be validated for their efforts and accomplishments (Feeney & Collins, 2019).

According to Bowlby (1969/1982), seeking proximity to a stronger and wiser person (a caregiver, an attachment figure) is the attachment system's natural and primary strategy when the need arises for protection, comfort, or reassurance in times of threat (*safe-haven support*) or support, encouragement, and validation when confronting novel or demanding challenges (*secure-base support*). Support- seeking includes signals (interaction bids) that tell a relationship partner one is interested in restoring or maintaining proximity; overt displays

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of negative emotion (e.g., anger, anxiety, sadness) that call upon a partner to provide support and comfort; active approach behaviors that result in greater physical or psychological contact, including what Harlow (1959) called "contact comfort"; and explicit requests for emotional or instrumental support. According to Bowlby, not all of these behaviors are likely to be manifested in every threatening or challenging situation; that is, they are not controlled by rigid reflexes. Rather, they are part of a repertoire of behaviors from which an individual can choose (consciously or unconsciously) the most appropriate or available means of attaining a safe haven or secure base in a given situation. These bids for support persist until security is attained, and the comforted and empowered individual can move on to other activities.

This latter step is worth emphasizing, because attachment theory does not view continual clinging or perpetual dependency as the evolutionary function of attachment behavior. The function is to provide safety and protection (safe-haven support), while at the same time encouraging the supported individual to move on to greater autonomy (secure-base support). The ultimate payoff, viewed from an evolutionary perspective, is the ability to grow up, find a mate (or mates), reproduce, and foster viable offspring (where viability depends on parental care, at least early on, as well as cooperation with other family and community members and groups).

Cognitive Aspects of the Attachment Behavioral System

Bowlby (1969/1982) claimed that the attachment system operates in a complex goal-corrected manner. A person evaluates the progress he or she is making toward achieving a safe haven or secure base and then, if necessary, corrects his or her behavior to produce the most effective action sequence. Viewed somewhat abstractly, this flexible, goal-directed and goal-corrected adjustment of attachment behavior requires at least three cognitive operations: (1) monitoring and appraising changes in the environment and one's own internal state (e.g., distress, security); (2) monitoring and appraising the attachment figure's responses to one's bids for safe-haven or secure-base support; and (3) monitoring and appraising the utility of the chosen behaviors in a given context, so that an effective adjustment of these behaviors can be made in accordance with contextual opportunities and constraints. These same cognitive mechanisms are included in every cybernetic, control-system model of self-regulation (e.g., Carver & Scheier, 2012), some of which influenced Bowlby's theorizing.

Bowlby (1973, 1969/1982) stressed that the goal-corrected nature of attachment behavior requires the storage of relevant information in the form of mental representations of one's interactions with attachment figures. Based on the theoretical writings of Craik (1943) and Young (1964), he called these representations *working models* and seemed to intend the word *working* to carry two senses: (1) The models allow for mental simulation and prediction of likely outcomes of attachment behaviors (i.e., they provide context-sensitive representations of complex social situations); and (2) the models are provisional (in the sense of "working" drafts or changeable plans); they can be altered if conditions warrant revisions.

Bowlby (1969/1982) distinguished between two kinds of working models: "If an individual is to draw up a plan to achieve a set-goal not only does he have some sort of working model of his environment, but he must have also some working knowledge of his own behavioral skills and potentialities" (p. 112). That is, everyone, after repeatedly seeking proximity and support from attachment figures in times of need, holds mental representations of the attachment figures' responses (*working models of others*) as well as representations of their own self-efficacy and value, or the lack thereof, during interactions with attachment figures

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(*working models of self*). These working models organize a person's memories of attachment figures and oneself during attempts to gain protection in times of need. These organized models include expectations about the kinds of behavior that will likely to lead to a sense of security (and those that will lead to rejection or punishment).

In his writings, Bowlby (1969/1982) also discussed the interplay between the attachment system and other behavioral systems. Because coping with threats and dangers must have high priority for biological survival, engagement in proximity- and support-seeking behavior usually inhibits or interferes with engagement in other activities. Under conditions of threat, people turn to others as providers of support and comfort rather than as partners for exploratory, affiliative, or sexual activities. Moreover, at such times, they are likely to be so focused on their own needs for protection and support that they lack the mental resources needed to explore and learn new things or to attend empathically and altruistically to others' needs. Only when relief is attained and a sense of attachment security is restored can the individual deploy ample attention and energy to other goal pursuits and engage fully and effectively in nonattachment activities.

Attachment-System Activation over the Course of the Lifespan

Bowlby (1969/1982, 1988) believed that the attachment system, which is critical for survival during infancy and early childhood, continues to operate throughout life, as indicated by adults' needs for positive regard, affection, comfort, and support (Zeifman & Hazan, 2016). Although Bowlby (1988) acknowledged that age and psychological development result in an increased ability to gain comfort and security from one's own inner resources (self-efficacy, memories of past support, self-soothing, and other emotion-regulation techniques), he also claimed that no one of any age is completely free of reliance on external protective figures when confronting illness, injury, death of loved others, aging, and other threats and traumas.

Of course, the attachment system may operate somewhat differently at different ages, despite needs for support and protection being similar across the lifespan. For example, the identity and type of targeted attachment figures tend to change with development. During infancy, primary caregivers (usually parents or other family members) occupy the role of attachment figures. During adolescence and adulthood, other relationship partners become additional potential targets for proximity and support seeking, including close friends and romantic and marital partners (see Zeifman & Hazan, 2016, for a review).

Beyond these relationship partners, people seek protection and support from people who are experts in particular domains, such as teachers, coaches, and mentors in educational settings, managers in work settings, therapists in clinical settings, health workers in medical settings, and leaders in organizational settings (Mikulincer & Shaver, 2020). Any of these people, depending on circumstances, can be perceived as potential sources, in context, of a safe haven and secure base and therefore become a target for support and proximity seeking in times of need. Moreover, other social or symbolic entities can be recruited as potential attachment figures: small groups (e.g., a work team, a group of friends); religious and community groups; larger social institutions (e.g., the workplace); pets; and God and other supernatural figures (e.g., Granqvist, 2020; Smith et al., 1999; Zilcha-Mano et al., 2012). These actual and symbolic sources of security provide the rationale for applying attachment theory and attachment-based interventions to different kinds of relationships and across different levels of social organization.

The tactics people use for attaining attachment security also tend to be different at different ages. In infancy, the tactics are largely innate (e.g., crying when frightened, reaching

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out to be picked up and held). As a child develops and enters more complex social relationships, the search for sources of protection becomes increasingly flexible, context-sensitive, and skillful (i.e., communicating needs and feelings verbally, regulating need expression in line with the preferences and role demands of an attachment figure). In adolescence and adulthood, the tactics are expanded to include many other methods of establishing contact and seeking support (e.g., phoning or FaceTiming an attachment figure, sending an email or text message). Moreover, the search for comfort and protection does not necessarily require actual contact with another person; it can include calling upon soothing, comforting mental representations (e.g., memories, visual and auditory images) of loving attachment figures. These mental representations can be activated not only intentionally (e.g., through memory/imagination exercises, Buddhist love and kindness meditation, prayer, nostalgic reveries), but also activated automatically, without conscious deliberation, when a threat arises (Mikulincer & Shaver, 2007).

Bowlby's ideas about the predisposition to seek proximity to others as a means of obtaining care and protection have received extensive empirical support. In times of need, infants show a clear preference for their familiar caregiver(s), engage in intense proximity seeking, and are soothed by a caregiver's presence and support (e.g., Ainsworth, 1991). During adolescence and adulthood, research has shown that people are likely to turn to close relationship partners for support when threatened or distressed (e.g., Kammrath et al., 2020). Using laboratory cognitive techniques, we (e.g., Mikulincer et al., 2002) found that adults react to even minimal threat cues with activation of mental representations of attachment figures. In these studies, fast (implicit) exposure to a threat-related word (e.g., illness, failure) measurably increased the cognitive accessibility of attachment-figure representations, as indicated by faster lexical-decision times for the names of figures identified earlier in a questionnaire to be sources of safety and care (e.g., the name of a parent, spouse, or friend). Interestingly, these effects were not found for the names of people other than attachment figures, including family members who were not nominated as special security providers. Similar findings have been obtained in subsequent studies, where threats have been found to increase mental access to representations of symbolic sources of attachment security, such as a person's pet or God (Granqvist et al., 2012; Zilcha-Mano et al., 2012). These and many other research findings support Bowlby's claim that the human mind/brain turns automatically to attachment figures in times of threat.

There is also extensive evidence that separation from and loss of attachment figures is a powerful source of distress. Ethological observation of infants separated from their mothers (e.g., Robertson & Bowlby, 1952) revealed early in the history of attachment research that absence of an attachment figure causes intense distress, anxiety, anger, protest, and yearning. In adulthood, bereavement research has found that the death of a close relationship partner is one of the most painful experiences a person can endure, one that typically elicits extreme sorrow, despair, and painful longing for the deceased partner that can last for months or years (see Fraley & Shaver, 2016, for a review). Similar emotional reactions have been observed following the breakup of romantic relationships and divorce (for reviews, see Feeney & Monin, 2016; Sbarra et al., 2019).

Attachment-Related Individual Differences

As explained earlier, Bowlby (1969/1982) postulated an innate predisposition to seek proximity to supportive others in times of need in order to obtain a safe haven and secure base. But his ideas might not have captured the attention of developmental, personality, social,

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and clinical researchers if he had done only that. What captured research psychologists' attention were the patterns or styles of attachment emphasized in Bowlby's (1973, 1980) theory and operationalized in Ainsworth's research on mother–infant dyads (Ainsworth et al., 1978). Most of the research inspired by the theory focuses on those individual differences.

Although all human beings are born with the desire and capacity to seek proximity and comfort from attachment figures in times of need, important individual differences arise in the context of relationships from birth on. According to Bowlby (1973), a person's innate inclination for support-seeking and actual proximity-seeking behavior toward an attachment figure can be affected or shaped by the figure's responses. Over time, social encounters with an attachment figure adjust the parameters of a person's proximity-seeking bids in ways that produce fairly stable individual differences in cognition, emotion, and behavior. A person's neural and behavioral capacities become "programmed" to fit with the responses of major attachment figures. Bowlby assumed that the residues of such social encounters are stored in internal (i.e., mental) working models of self and other, and that these mental representations shape the way a person reacts to threats and searches for protection from an attachment figure.

Bowlby (1973) placed great emphasis on the individual differences in attachment behavior that develop as a result of the availability, responsiveness, and supportiveness of key attachment figures, especially in times of threat or need. When attachment figures are reliably available when needed, sensitive to one's attachment needs, and willing and able to respond warmly to bids for proximity and support, a person of any age feels more secure, valued, and understood and is more able to explore the physical and social environment curiously and competently. These experiences increase a person's confidence in proximity and support seeking as protective measures and build positive working models of self and others, which are important for maintaining emotional stability and for forming mature, mutually satisfying close interpersonal relationships.

However, when attachment figures are not reliably available and supportive, this sense of security is not attained, doubts about one's lovability and worries about others' motives and intentions are formed, and a person loses confidence in the efficacy of his or her proximity-seeking bids as means to achieve protection and security. As a result, *secondary strategies* of affect regulation come into play. According to Cassidy and Kobak (1988), there are two kinds of secondary strategies: *hyperactivation* and *deactivation* of the attachment system.

Hyperactivation (which Bowlby, 1969/1982, called "protest") is characterized by energetic, insistent attempts to induce a relationship partner, viewed as insufficiently available or responsive, to pay more attention and provide better care and support. Hyperactivating strategies are exaggerations of the primary attachment strategy—intense, anxious monitoring of attachment figures and strong efforts to gain and maintain proximity. They include clinging, controlling, and coercive responses; cognitive and behavioral efforts to establish physical contact and experiences a sense of oneness; and overdependence on relationship partners as a source of protection (Shaver & Mikulincer, 2002). Hyperactivation keeps the attachment system chronically activated and constantly on the alert for threats, separations, and betrayals; it therefore unintentionally exacerbates relational conflict, heightens distress associated with attachment-figure unavailability, and reinforces doubts about one's ability ever to attain a sense of security (Mikulincer & Shaver, 2003).

Deactivation refers to inhibition or down-regulation of proximity-seeking inclinations and actions, suppression or discounting of threats that might activate these inclinations, and determination to handle threats and distress alone (a stance that Bowlby [1969/1982]

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called "compulsive self-reliance"). These strategies involve maintaining physical and emotional distance from others, being uncomfortable with intimacy and interdependence, ignoring or downplaying threat- and attachment-related cues, and suppressing threat- and attachment-related thoughts (Cassidy & Kobak, 1988). These tendencies are bolstered by an attitude of self-reliance that reduces dependence on others and discourages acknowledgment of personal faults.

It is important to note that both anxious hyperactivation and avoidant deactivation of the attachment system are well-organized, adaptive responses to interactions with a cold, frustrating, unstable, unreliable, or rejecting relationship partner. When developed in infancy, they can be viewed as reasonable, perhaps necessary forms of adaptation to a non-optimal caregiving environment. When continued into adolescence and adulthood, however, hyperactivation and deactivation strategies tend to be problematic for both oneself and one's relationship partners (for a review of relevant research, see Mikulincer & Shaver, 2016).

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Assessing Attachment-Related Individual Differences in Early Childhood

In examining these individual differences in attachment-system functioning, researchers have focused mainly on a person's *attachment style*—the pattern of relational needs, cognitions, emotions, and behaviors that results from satisfying or frustrating interactions with attachment figures (Fraley & Shaver, 2000). These styles were first described by Ainsworth (1967; Ainsworth et al., 1978) based on observations of infants' responses to separations from and reunions with mother in the laboratory Strange Situation, mentioned earlier, which was designed to activate an infant's attachment behaviors. Ainsworth classified infants into one of three categories, which we label *secure, anxious,* or *avoidant.* Main and Solomon (1990) later added a fourth category, *disorganized,* characterized by odd, disoriented behavior and unusual alternations or mixtures of anxiety and avoidance.

Infants classified as secure seem to possess easily accessible working models of successful proximity-seeking attempts and security attainment. In the Strange Situation, they tend to exhibit distress during separations from mother but then recover quickly following reunions and continue to explore the environment with interest. When reunited with the mother, they greet her with joy and affection, initiate contact with her, and respond positively to being held, after which they quickly reestablish interest in the toys provided in the experimental setting (i.e., they explore). During home observations, mothers of these infants are emotionally available in times of need and responsive to their child's proximity-seeking behavior (Ainsworth et al., 1978). It seems reasonable to characterize these mothers as sources of attachment security and as reinforcing reliance on what attachment theorists consider to be the primary attachment strategy (seeking proximity and comfort when needed).

Avoidant infants seem to possess working models conducive to attachment-system deactivation. In the Strange Situation, they show little distress when separated from their mother and tend to avoid her when she returns. In home observations, the avoidant infants' mothers tend to be emotionally rigid, as well as angry at and rejecting of their infants' proximity-seeking efforts (Ainsworth et al., 1978).

Anxious infants seem to possess working models related to attachment-system hyperactivation. In the Strange Situation, they are extremely distressed during separations and exhibit conflicted, angry, or ambivalent responses to their mother during reunions (e.g., they may cling one moment and angrily resist comforting the next, which was Ainsworth's reason for sometimes calling them "anxious/ambivalent" or "anxious/resistant"). During

home observations, interactions between anxious infants and their mothers are characterized by lack of harmony and lack of caregivers' consistent responsiveness (Ainsworth et al., 1978).

Mothers of both avoidant and anxious infants seem to thwart security attainment, thereby fostering their children's adoption of secondary attachment strategies. However, whereas avoidant infants deactivate their attachment system in response to attachment-figure unavailability, anxious infants tend to hyperactivate the system in an attempt to gain more reliable support from their attachment figure.

Disorganized/disoriented infants, the fourth style or type of attachment, seem to suffer from a breakdown of organized attachment strategies (primary/secure, hyperactivating, or deactivating). They either randomly oscillate between strategies or do something bizarre like lying face down on the floor without moving when their mother appears following a separation or sitting passively under a table, evincing no clear proximity-seeking strategy (Main & Solomon, 1990). These odd behaviors seem to be a response to disorganized, unpredictable, and discomfiting behavior on the part of an attachment figure who, research shows, is likely to be suffering from unresolved losses or unresolved attachment-related traumas (e.g., Lyons-Ruth & Jacobvitz, 2016). When her child approaches her for comfort and reassurance, she sometimes looks frightened, looks away, or "spaces out" in a dissociative way, causing the child to stop abruptly, express confusion, and adopt whatever momentary strategy seems to reduce discomfort, such as turning away, diverting attention, or behaving self-protectively (e.g., hiding under a table). Longitudinal studies have linked attachment disorganization in the Strange Situation to severe emotional and personality disorders and poor relationship quality in adolescence and adulthood (Sroufe, 2020).

As we show in Chapters 2 and 4, several longitudinal studies and meta-analyses have found support for Ainsworth's original hypotheses and observations (e.g., Sroufe et al., 2005; Verhage et al., 2016; Zeegers et al., 2017). However, despite several cross-cultural studies of infant attachment around the world (e.g., Mesman, 2021; Mesman et al., 2016, 2018), most of this research has been conducted with predominantly White samples. Only a handful of attachment studies have been conducted in the United States with African American families (see Malda & Mesman, 2017, for a review). In these studies, African American families tend to be characterized by lower rates of both maternal sensitivity (as traditionally measured in White samples) and infant attachment security in the Strange Situation. These tendencies seem to reflect the action of broader ecological factors, such as inadequate financial resources, which interferes with consistent, effective caregiving (e.g., Bakermans-Kranenburg et al., 2004). This kind of interference is likely exacerbated by systemic racism, which contributes to parent–child separations, caregiver loss, and family trauma via disproportionate rates of incarceration, exclusionary school discipline, maternal and infant mortality, stress-related illnesses, police brutality, and child welfare removals (e.g., Barbarin, 2021). Although Bowlby's (1944) initial observations concerned delinquent boys from poor families, he did not consider these specific contextual factors. However, these kinds of factors are critical for understanding caregiving patterns, attachment, and socioemotional development within Black families.

Assessing Attachment-Related Individual Differences in Adolescence and Adulthood

In the 1980s, researchers from different psychological subdisciplines (developmental, clinical, personality, and social) created new attachment measures to extend attachment theory into adolescence and adulthood. Based on a developmental and clinical approach, Main and her colleagues (George et al., 1985; Main et al., 1985; see Hesse, 2016, for a review)

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devised the Adult Attachment Interview (AAI) to study adolescents' and adults' mental representations of attachment to their parents during childhood. One of the major findings of this approach to studying adult attachment is that an adult's AAI classification (secure, dismissing, preoccupied, or unresolved) predicts his or her infant's attachment pattern in the Strange Situation (see van IJzendoorn, 1995, for a review), even if the interview is conducted before the infant is born. In other words, there is good evidence for the intergenerational transmission of attachment patterns, which seems not to be primarily attributable to shared genes (Vaughn & Bost, 2016) but rather is a result of social experience.

In the AAI, interviewees answer open-ended questions about their childhood relationships with parents and are classified into three major categories paralleling Ainsworth's infant typology (George et al., 1985). A person is classified as *secure* (or free and autonomous with respect to attachment) if he or she describes parents as available and responsive, and verbalizes memories of relationships with parents that are clear, convincing, and coherent. Avoidant individuals (those who are *dismissing* of attachment) play down the importance of attachment relationships and tend to be unable or unwilling to recall specific episodes of emotional interactions with parents. Anxious individuals (those *preoccupied* with attachment) are entangled in worries and angry feelings about parents; are hypersensitive to rejection, separation, and loss; and can easily retrieve negative memories but have trouble discussing them coherently without becoming anxious, angry, or lost in long, emotional monologues. Both dismissing and preoccupied individuals are, in effect, inattentive to and uncooperative with the interviewer's needs, just as they tend to be out of tune with the needs of their infants.

Main et al. (1985) called their measurement strategy a "move to the level of representation," because, unlike the Strange Situation, which emphasizes an infant's behavior, the AAI assesses current adult mental representations of childhood attachment relationships as these are articulated in "coherent" or "incoherent" discourse with an interviewer. Despite the richness of AAI narratives, which are particularly useful in clinical settings, the interview is costly to administer and to score, and deals largely with memories of child–parent relationships. It does not directly measure attachment orientations in current close relationships or in other interpersonal and social contexts.

Working from a personality and social-psychological perspective, Hazan and Shaver (1987, 1990) developed a self-report measure of adult attachment style suitable for use in experiments and surveys. In its original form, the measure comprised three brief descriptions of feelings and behaviors in close relationships that were intended to characterize adult romantic analogues of the three infant attachment styles identified by Ainsworth et al. (1978), not including disorganized (which was discovered and named years after publication of Ainsworth et al.'s 1978 book). Participants were asked to read the descriptions and place themselves into one of the three attachment categories according to their predominant feelings and behavior in romantic relationships. 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."

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In subsequent years, numerous researchers developed similar self-report measures, in some cases to improve the precision of the simple forced-choice measure and in other cases to tap attachment orientations beyond the romantic domain (see Crowell et al., 2016, for a review). With cumulative evidence, attachment researchers in the personality and social fields reached the conclusion that attachment styles are best conceptualized as regions in a two-dimensional (anxiety-by-avoidance) space. These two dimensions appear consistently in factor analyses of attachment measures (e.g., Brennan et al., 1998). (They were also obtained from a statistical discriminant-functions analysis of Ainsworth's Strange Situation data on mothers and infants; see Ainsworth et al., 1978. But few readers seemed to pay attention to the dimensional results.)

Researchers have found that dimensional representations of adolescent and adult attachment styles are more precise and accurate than categorical representations (e.g., Fraley et al., 2015). The first dimension, *attachment-related avoidance,* is concerned with discomfort with closeness and dependence on relationship partners, preference for emotional distance, and reliance on deactivating strategies. The second dimension, *attachment-related anxiety,* is concerned with a strong desire for closeness and protection, intense worries about others' responsiveness and one's own value and lovability, and reliance on hyperactivating strategies. People who score low on both dimensions are said to be secure or to have a secure attachment style. People who score high on both dimensions are sometimes called "fearful avoidant" (Bartholomew, 1990) and are perhaps adult versions of "disorganized" attachment in infants.

The two attachment-style dimensions can be measured with the 36-item Experiences in Close Relationships inventory (ECR; Brennan et al., 1998), which has high reliability, as well as construct, predictive, and discriminant validity (Crowell et al., 2016). (See Lafontaine et al., 2015, for a reliable and well-validated short form of the ECR.) This scale can be used to assess a person's global attachment orientation across relational domains, as well as his or her attachment orientation in a particular relational domain, or toward a specific attachment figure, or on a particular occasion (Fraley, Heffernan, et al., 2011; Gillath et al., 2009).

Studies using self-report measures of adult attachment style have found them to be predictably and coherently related to relationship quality, mental health, social adjustment, ways of coping, emotion regulation, self-esteem, interpersonal behavior, and social cognitions (see Chapter 2 for a review of these findings). Importantly, these individual differences in attachment style are not well explained by less specific, more global personality traits such as extraversion, neuroticism, or self-esteem, although there are predictable and meaningful associations between attachment measures and such personality traits (Mikulincer & Shaver, 2016).

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Attachment-Related Mental Structures

Bowlby (1973, 1988) believed that individual differences in attachment style can be explained in terms of stored experiences of significant interactions or relationships with attachment figures, organized within an associative memory network. This stored knowledge allows a person to predict future interactions with attachment figures and adjust proximity-seeking efforts in times of need without having to rethink each one from the ground up. As reviewed earlier, Bowlby (1969/1982) called these cognitive structures *working models* of self and others. These mental models presumably operate at least partially at a conscious level and in a relatively reflective and intentional manner. But with repeated

use, they can become automatic and may often operate outside of awareness either by habit or because of defensive maneuvers (e.g., repression, suppression, or deliberate inattention; Bowlby, 1980). These working models lie at the core of relatively stable attachment-style differences (Shaver et al., 1996).

During infancy, working models are based on particular interactions, or kinds of interactions, with an attachment figure. As a result, a child can hold multiple situation-specific working models that differ according to the outcome of the interaction (success or failure to attain security) and the strategy used to deal with insecurity during the interaction (hyperactivating or deactivating). With experience, and in the context of cognitive development, these working models form excitatory and inhibitory associations with each other. For example, experiencing or thinking about a security-enhancing interaction activates memories of similar security-enhancing episodes and renders memories of attachment insecurities and worries less accessible. These associations favor the formation of a more abstract and generalized working model of a specific attachment figure. Gradually, through excitatory and inhibitory links with models of other attachment figures, even more generic working models are formed that summarize attachment relationships in general.

This process of continual model construction and integration results, over time, in the creation of a hierarchical associative network that includes a wide variety of secure and insecure episodic memories, relationship-specific models, and generic working models of self and others. As a result, a person can sometimes think about an attachment figure in more secure terms and at other times in less secure terms (Mikulincer & Shaver, 2007). Moreover, the person can think about some attachment figures in more secure terms and about other attachment figures in less secure terms (Baldwin et al., 1996).

In a pioneering study, Overall et al. (2003) provided evidence for this hierarchical cognitive network of attachment working models. They asked people to complete attachment measures for three specific relationships within each of three domains—family, friendship, and romantic—and then examined the structure of these nine relationship descriptions. They found that a hierarchical arrangement of specific and global working models fit the data best, indicating that models of specific relationships (e.g., with a particular family member) are nested within relationship-domain representations (e.g., family members), which in turn are nested within a more global model.

The cognitive/neural network of attachment-related models has all of the usual properties of any such network—for example, differentiation, integration, and coherence among various models and model components (Collins & Read, 1994). In addition, each working model within the network differs in cognitive accessibility (the ease with which it can be activated and used to guide the functioning of the attachment system in a given social situation). As with other mental 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 (Collins & Read, 1994). 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 more generic level, the model that represents typical interactions with major attachment figures (e.g., parents, romantic partners) becomes the most chronically accessible representation across situations and over time.

Consolidation of a chronically accessible working model is the most important psychological process accounting for the enduring effects on personality functioning of attachment interactions during infancy, childhood, and adolescence (Bowlby, 1973). Given a fairly consistent pattern of interaction with primary caregivers during infancy and childhood, the most representative or prototypical working models of these interactions become part of a

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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 primary caregivers during childhood become core personality characteristics, tend to be applied in new situations and relationships, and shape a person's overall attachment style in adulthood.

In the following passage, Bowlby (1979) described how these chronically accessible models shape a person's experience:

> [One] tends to assimilate any new person with whom he may form a bond, such as a spouse, or child, or employer, or therapist, to an existing model (either of one or other parent or of self), and often to continue to do so despite repeated evidence that the model is inappropriate. Similarly he expects to be perceived and treated by them in ways that would be appropriate to his self-model, and to continue with such expectations despite contrary evidence. (pp. 141–142)

Although the dominance of a particular working model depends on the history of attachment-related interactions, attachment theory also emphasizes the importance of contextual factors that contribute to model activation (Collins & Read, 1994). An individual can possess multiple, even conflicting, attachment inclinations, beyond the attachment orientation that was formed in childhood experiences with parents, and these models or inclinations can become dominant in particular relational, social, or laboratory contexts. As reviewed throughout this book, there is substantial evidence that a current interaction with a sensitive and responsive attachment figure, or even just thinking about this security-enhancing figure, has beneficial effects on attachment security, emotion regulation, social cognition, and relational behavior, even among people who are chronically insecure with respect to attachment (see Gillath & Karantzas, 2019; Gillath et al., 2022; Rowe et al., 2020, for reviews).

Developmental Aspects of the Theory: Stability and Change in Attachment Orientations

One of the pillars of attachment theory is the claim that childhood experiences play an important role in forming what will become a person's adult personality (Bowlby, 1973). This does not mean, however, that attachment theory can simply be equated with Freudian or object relations approaches to psychoanalysis. In fact, attachment theory offers a unique perspective on the development of working models and their interplay with contemporary interpersonal contexts as determinants of adult feelings, behaviors, and relationship outcomes. Specifically, Bowlby (1973) believed that the developmental trajectory of working models is not linear or simple, and that these mental representations in adulthood are not exclusively based on early experiences. Rather, they can be updated throughout life and affected by a broad array of contextual factors, such as current interactions with a relationship partner, the partner's attachment style and dynamics, and a person's current life situation, which can moderate or even override the effects of mental residues of past experiences. In fact, Bowlby (1973) preferred to use the term *working models* rather than *mental representations* or *schemas* in order to emphasize the changing, flexible nature of these cognitions.

Thus, attachment theory does not assert that a person's current attachment orientation must mirror or match his or her attachment orientations with parents during childhood. Rather, the current orientation is a complex amalgam of historical and contemporary factors, and it can be changed by updating and reworking mental representations of

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self and attachment figures. This assertion is worth emphasizing, because it allows for the development of interventions aimed at reworking a person's attachment-related working models and thereby heightening his or her sense of security.

Borrowing from Waddington's (1957) epigenetic landscape model, Bowlby (1973) proposed that the development of adult attachment orientations is constrained by two kinds of forces: (1) "homeothetic forces" that buffer changes in attachment orientations from infancy to adulthood, making it less likely that they will deviate from early working models, and (2) "destabilizing forces" that cause deviation from early working models given powerful experiences that demand revision and updating of attachment representations. Attachment research has provided evidence for both homeothetic and destabilizing forces. With regard to homeothetic forces, numerous studies have shown that attachment styles tend to remain stable over time (see Booth-LaForce & Roisman, 2021, for a review). Pinquart et al. (2013), for example, meta-analyzed results from 127 samples (N = 21,072 individuals) in studies that examined the stability of attachment security at 225 different time intervals, ranging from 2 weeks to 29 years. The overall stability coefficient for attachment security was .39 regardless of time interval. However, lower stability coefficients were found in intervals larger than 15 years. In short, attachment scores (assessed with self-report scales or the AAI) during adolescence and young adulthood do relate in theoretically meaningful ways to attachment patterns in early childhood (assessed with Ainsworth's laboratory Strange Situation procedure), but these associations are relatively small in magnitude (Fraley, 2019).

Some of the longitudinal studies that have assessed attachment patterns at different ages have also provided evidence of the action of destabilizing forces. In these studies, researchers gathered data concerning stressful attachment-unrelated events (e.g., natural disasters, financial crises, systemic racism) and stressful attachment-relevant events (e.g., death of a parent, parental divorce, physical or sexual abuse by a family member) and found that occurrence of these events during childhood or adolescence destabilized the trajectory of attachment patterns (e.g., Aikins et al., 2009; Booth-LaForce et al., 2014; Van Ryzin et al., 2011). Specifically, they increased the likelihood that what were once securely attached infants would later be classified as insecure. For example, Becker-Stoll et al. (2008) found that adolescents classified as securely attached at both age 1 and age 16 experienced significantly fewer stressful events than adolescents with unstable attachment patterns. Pinquart et al. (2013) reached a similar conclusion in their meta-analysis of studies of attachment stability. Specifically, they found that secure infants with a history of stressful events were less likely to maintain security during adolescence than secure infants who grew up in less stressful environments.

There is also evidence that changes in maternal sensitivity over time are associated with changes in an offspring's attachment security (e.g., Booth-LaForce et al., 2014). These changes may result from a mother's experience of stressful events that may impair her sensitive responsiveness or from more positive events that may improve her caregiving. In any case, this finding highlights the crucial role of caregiving quality, because "the most proximal variable of interest—the ongoing quality of the mother–child relationship—may serve as a significant modifier of early mother–child attachment security" (Booth-LaForce et al., 2014, p. 82).

Along the same lines, Van Ryzin et al. (2011) found a wide variety of attachment pathways across time that were closely associated with stressful events occurring during childhood or adolescence. They concluded that early attachment security does not imply invulnerability to later insecurity, and that continuity in attachment security over time is not just a function of the power of early parental caregiving in shaping the developing child's

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working models. In fact, the presence of stressful events seems to disrupt family stability and thereby increase vulnerability to insecurity, even in those with early security.

Influenced by findings of lawful discontinuities in attachment styles, Carlson et al. (2004) reanalyzed longitudinal data from the Minnesota Longitudinal Study of Risk and Adaptation, and examined the joint contribution of Strange Situation classifications at 12 months and attachment representations and socioemotional functioning during early childhood (4.5 years of age), middle childhood (8 years), and early adolescence (12 years) to AAI classifications at age 19. Interestingly, although Strange Situation classifications were not directly associated with AAI classifications 19 years later, infant attachment was found to be indirectly related to adult attachment via its effects on attachment representations and socioemotional functioning throughout childhood and adolescence. Specifically, infant attachment in the Strange Situation had significant influences on attachment representations and socioemotional functioning during early childhood, which in turn contributed to later representations and functioning during middle childhood and adolescence. And adolescents' mental representations and socioemotional functioning contributed to AAI classifications at age 19.

According to Simpson et al. (2014), these findings suggest that continuity of attachment patterns from infancy to adulthood is a dynamic process resulting from successive transactions between the person and the environment across the lifespan. Infant attachment patterns are carried from one time point to another by an infant's working models of self and others, but these are also responsive to relational experiences in a wide variety of settings (peer relationships, romantic relationships). Thus, later attachment patterns are always a reflection of the early working models and accumulated subsequent experiences.

This conclusion fits with a railway system metaphor used by Bowlby (1973). People may get on a particular train leading out of London, but they will not all end up in the same place, because some will take different branch lines along the way. In life, people take different routes through socioemotional development, including attachment patterns, depending on their different histories of social relationships. According to Bowlby, people experience different "branch points" in their route through childhood, adolescence, and adulthood, and these branch points place them on different trajectories and cause them to arrive at different adult destinations. Constructively changing a person's attachment pattern is like creating a new trajectory that leads to a more favorable destination.

This dynamic conception of socioemotional development has been supported in longitudinal studies of attachment, beginning with infants in the Strange Situation and following them all the way through adolescence and young adulthood (e.g., Englund et al., 2011), including the study of their romantic and marital relationships and their performance as young parents (e.g., Oriña et al., 2011; Raby, Roisman, Simpson, et al., 2015; Simpson, Collins, et al., 2007). For example, Raby, Roisman, Simpson, et al. (2015) found that receipt of sensitive caregiving in infancy and early childhood predicted children's social competence during childhood and adolescence, which in turn predicted romantic relationship functioning during young adulthood, which in turn predicted supportive parenting in adulthood.

Concluding Remarks

Beginning with Bowlby's insights into the nature of a child's tie to his or her parents, supplemented by the watershed contribution of Ainsworth's home-observational and laboratory research, the focus of attachment researchers has expanded to include not only

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child–caregiver relationships of various kinds but also couple relationships in adolescence and adulthood, and—as we explain in subsequent chapters—relationships of clients with therapists, students with teachers, workers with managers and work teams, and people with physical illness with health care providers. Bowlby's clinical observations and his exploration of ethological and cognitive research has now been expanded, tested, and operationalized in several ways.

The body of research inspired by attachment theory is ripe for clinical, educational, and organizational applications. In each domain in which applications are developed, the basic concepts of attachment, attachment figures, threats and distress, working models, attachment security, and individual differences in attachment anxiety and avoidance continue to be relevant and important. Moving a person toward greater security in a particular relationship or fostering a more secure attachment style across relationships requires understanding people's internal working models, characteristic expectations and worries, and behavior in relationships with key figures in their lives. Creating successful interventions often requires developing new therapeutic techniques and context-relevant measures, which we discuss throughout this book.

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