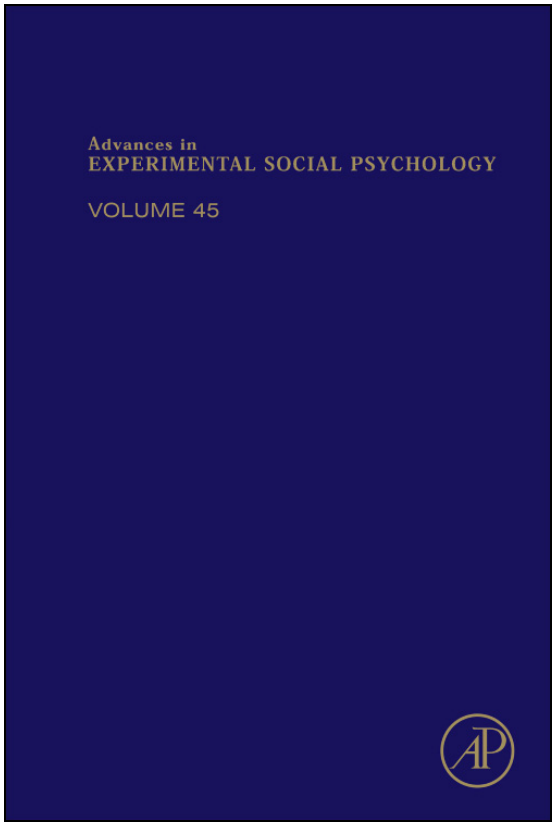

From: Jeffry A. Simpson and W. Steven Rholes, Adult Attachment Orientations, Stress, and Romantic Relationships. In Patricia Devine, Ashby Plant editors: *Advances in Experimental Social Psychology*, Vol. 45,
Burlington: Academic Press, 2012, pp. 279-328.
ISBN: 978-0-12-394286-9

CHAPTER SIX

Adult Attachment Orientations, Stress, and Romantic Relationships

Jeffry A. Simpson* *and* W. Steven Rholes†

Contents

Abstract

In this chapter, we discuss attachment theory and our programs of research on how individuals with different adult attachment orientations think, feel, and especially *behave* when they and their romantic partners encounter different types of stressful situations. In Section 2, we review some basic principles of attachment theory, discuss what adult attachment orientations are, and summarize what they correlate with in the context of relationships. We also review how the different adult attachment orientations are associated with how individuals regulate negative emotions in threatening situations. In Section 3, we discuss diathesis–stress thinking in attachment theory, and we introduce the

* Department of Psychology, University of Minnesota, Minneapolis, Minnesota, USA
† Department of Psychology, Texas A&M University, College Station, Texas, USA

Advances in Experimental Social Psychology, Volume 45
ISSN 0065-2601, DOI: 10.1016/B978-0-12-394286-9.00006-8

general diathesis–stress process model that has guided most of our research on adult attachment, stress, and relationships during the past 20 years. In Section 4, we review the various programs of attachment research we have conducted, which have tested how adults who have different attachment orientations cognitively, emotionally, and behaviorally react to different types of threat/stress vis-à-vis their romantic partners and relationships. We conclude the chapter by summarizing our diathesis–stress findings and by discussing promising directions for future research.

1. Introduction

Across human evolutionary history, protection from danger by a stronger, older, or wiser figure has been essential for the survival of vulnerable infants and young children. To ensure sufficient protection, evolutionary selection pressures produced an innate system—the attachment system—that motivates vulnerable individuals to seek close physical and/or emotional proximity to stronger/wiser protective figures, particularly when they are distressed (Bowlby, 1969, 1973, 1980). These behavioral tendencies would have increased the chances of surviving to reproductive age, permitting the genes that coded for the attachment system to be passed on to offspring (Simpson & Belsky, 2008). This principle—that humans evolved to seek and maintain close physical and emotional ties to their primary caregivers when they are distressed—is *the* fundamental tenet of attachment theory.

In this chapter, we focus on adult attachment research that has investigated how people who have different attachment histories (orientations) typically think, feel, and behave when they are confronted with different types of threat. Although the attachment system operates more visibly and strongly in infants and young children and it was more critical to their immediate survival, Bowlby (1969, 1973) maintained that attachment motives affect how people think, feel, and behave in close relationships "from the cradle to the grave" (Bowlby, 1979, p. 129). Most of the research that we review in this chapter tests diathesis–stress principles that flow from attachment theory. In our various programs of research, we have conceptualized attachment insecurity as a diathesis that sometimes generates maladaptive interpersonal responses to certain stressful or threatening events.

The chapter is divided into four major sections. In Section 2, we discuss core principles of attachment theory and adult attachment orientations, including how these orientations are measured and their major correlates. We also review how each adult attachment orientation is associated with the way in which individuals regulate negative emotions in threatening situations. In Section 3, we discuss diathesis–stress models and associated principles in attachment theory. We also introduce the general process model

that has guided most of our research on adult attachment, stress, and relationships during the past 20 years. Section 4 reviews the programs of attachment research we have conducted, which have investigated how adults who possess different romantic attachment orientations cognitively, emotionally, and behaviorally respond to different types of threat/stress vis-à-vis their romantic partners and relationships. We conclude the chapter by summarizing our diathesis–stress findings and discussing promising directions for future research.

2. Attachment in Adulthood

In this section, we first briefly review core principles of attachment theory, the construct of attachment working models, and how they operate in adults. We then discuss the two primary dimensions that define individual differences in adult romantic attachment orientations (anxiety and avoidance), including the major correlates of each attachment orientation (style) and how each orientation is associated with the way individuals typically regulate their emotions in distressing situations.

2.1. Principles of attachment theory

According to Bowlby (1969), the primary purpose of the attachment behavioral system is to increase the likelihood that vulnerable individuals survive the numerous perils and dangers of childhood. The attachment system was ostensibly molded by natural selection to activate (turn on) whenever an individual experiences fear, anxiety, or related forms of distress. The primary conditions that activate the attachment system include what Bowlby (1973) termed "natural cues" to danger, such as unexpected noises, looming objects, heights, and darkness. They also include other fear-inducing stimuli such as wild animals, isolation from other people, separation from one's attachment figure, and physical conditions such as extreme hunger, fatigue, or illness (Bowlby, 1969, 1973). From an evolutionary viewpoint, the attachment system is designed to promote survival. From a psychological viewpoint, however, it functions to reduce fear, anxiety, and related forms of distress, thus permitting individuals to pursue other important life tasks and goals. According to Bowlby (1969), the primary strategy for achieving this important "set-goal" is to seek proximity to and comfort from attachment figures when one is distressed, both in childhood and in adulthood.

Proximity seeking can take many forms. For example, individuals can reduce the physical distance between themselves and their attachment figures, as when a romantic partner moves closer to his/her mate after

hearing a sudden, loud noise. Proximity seeking also includes closely attending to or monitoring one's attachment figure by locating and tracking his/her whereabouts, and it can involve protests and signs of distress intended to motivate one's attachment figure to approach and provide comfort. In adults, proximity seeking also entails the manipulation of internal representations of attachment figures, either consciously or unconsciously (see Mikulincer & Shaver, 2007a, 2006b). When an attachment figure is open and receptive to proximity bids, proximity seeking becomes the primary strategy that individuals use to deal with fearful or anxiety-provoking events. However, when attachment figures are *not* open and receptive (such as when they are either absent or reject, ignore, or fail to notice proximity bids), individuals learn to use "secondary" strategies to manage distress (which are described in more detail below).

The attachment system is terminated (turns off) when individuals experience a sufficient reduction in fear, anxiety, or distress, a process known as the attainment of "felt security" (Sroufe & Waters, 1977). When felt security is not sufficiently attained, the attachment system remains partially or fully activated. If the attainment of felt security is continually denied by attachment figures, an individual's attachment system can remain in a chronic state of activation. When this happens, individuals cannot fully attend to other important life tasks, such as caring for others or exploring the environment.

2.2. Working models in adults

Over time, people develop a mental record of their efforts to achieve proximity and comfort from their attachment figures in different social contexts, including the successes or failures of prior contact-seeking attempts. These mental representations form one of the core cognitive–emotional components of the attachment system that Bowlby (1969, 1973) termed mental representations or "working models." According to Bowlby (1973), working models have two primary components: (1) a model of significant others (i.e., attachment figures), which includes their past responsiveness to bids for proximity and comfortable, and (2) a model of the self, which includes information about the self's ability to achieve sufficient proximity/comfort along with one's value as a relationship partner.

According to Bowlby (1969, 1973, 1980), the way in which individuals are treated by significant others across the lifespan (e.g., parents, close friends, romantic partners) shapes the expectations, attitudes, and beliefs that they hold about future partners and relationships. These interpersonal expectancies, attitudes, and beliefs, which are central features of working models, operate as "if/then" propositions that guide how people think, feel, or behave, especially when they are distressed (e.g., "*If* I am upset, *then* I can

count on my partner to comfort and support me" or "*If* I feel overwhelmed, *then* I cannot depend on my partner to help me out"). Working models are cognitive structures that reflect an individual's cumulative perceptions of experiences with past attachment figures (Collins, Guichard, Ford, & Feeney, 2004). They contain episodic, semantic, and affective information that include (1) rules governing how one ought to think, feel, and behave with relationship partners in different situations; (2) guidelines for how to interpret and regulate emotional experiences with partners; (3) beliefs, attitudes, and values about partners, relationships, and relationship experiences; (4) expectations about what future partners, relationships, and relationship experiences will be like; and (5) episodic memories and emotions tied to prior relationship experiences. The accessibility of working models depends on the amount of direct personal experience on which they are based, the frequency with which they have been used in the recent past, and the density of neural connections with other related relationship schemas (Baldwin, 1992; Collins & Read, 1994). Once they develop, working models guide how individuals *orient* to their attachment figures and the interpersonal world around them, particularly in stressful contexts.[1] Working models also influence the way in which relationship-relevant information and events are filtered, interpreted, and acted upon in nonstressful situations as well.

A vast body of research has documented numerous ways in which attachment working models influence information processing and interpersonal functioning (see Mikulincer & Shaver, 2007a for a review). In the broadest terms, working models have been shown to affect whether, how, and when people selectively attend to and perceive their romantic partners; how they make inferences, judgments, and decisions about their partner's actions and reactions; how they think, feel, and behave in specific interpersonal contexts; and what they remember—or fail to remember—about their partner's previous actions (Collins et al., 2004; Feeney, 2008; Mikulincer & Shaver, 2007b). In most adult attachment studies, working models are not measured directly; rather, they are assessed indirectly based on how individuals report they typically think, feel, and behave in close relationships, especially romantic ones.[2]

2.3. The two-dimensional model of attachment orientations

Hazan and Shaver (1987) developed the first self-report measure of individual differences in attachment orientations (styles) with respect to adult romantic partners/relationships. To do so, they identified the prototypic

[1] This is why were prefer the term "attachment orientations" to "attachment styles."
[2] Attachment-relevant events occur when individuals feel distressed and need protection, comfort, and/or support, especially from an attachment figure (Mikulincer & Shaver, 2007b).

emotional and behavioral characteristics of secure, anxious, and avoidant children documented by Ainsworth, Blehar, Waters, and Wall (1978). Hazan and Shaver then grouped these prototypic features into three short paragraphs that described what secure, anxious, and avoidant adults ought to look like. Their initial findings for each attachment orientation (style) were remarkably consistent with predictions derived from attachment theory. For example, secure, anxious, and avoidant people reported experiencing love and the course of love in relationships very differently, and they held different views about the availability and trustworthiness of themselves as well as their relationship partners. In addition, many of the prototypical features of secure, anxious, and avoidant adults closely paralleled what Ainsworth et al. (1978) had found for secure, anxious, and avoidant infants. Given the limitations associated with categorical measures, subsequent attachment researchers (e.g., Collins & Read, 1990; Feeney & Noller, 1990; Simpson, 1990) translated the sentences in Hazan and Shaver's three paragraphs into individual items that could be rated on Likert-type scales. Simpson (1990), for instance, factor analyzed 13 items taken from the Hazan and Shaver paragraphs and identified two orthogonal dimensions, which are now known as attachment anxiety and attachment avoidance.

Research has repeatedly confirmed that two relatively uncorrelated dimensions underlie individual differences in adult romantic attachment (see Brennan, Clark, & Shaver, 1998; Fraley, Waller, & Brennan, 2000; Griffin & Bartholomew, 1994; Simpson, Rholes, & Phillips, 1996). The first dimension, called *avoidance*, reflects the degree to which individuals feel comfortable with closeness and emotional intimacy in relationships. People who score higher on avoidance claim to be less invested in their relationships, and they strive to remain psychologically and emotionally independent of their partners. Avoidant individuals are more likely to agree with self-report items such as "I'm not very comfortable having to depend on other people," "I don't like people getting too close to me," and "I find it difficult to trust others completely."

The second dimension, called *anxiety*, assesses the degree to which individuals worry about being underappreciated and possibly abandoned by their romantic partners. Individuals who score higher on anxiety claim to be highly invested in their relationships (sometimes to the point of enmeshment), and they yearn to get closer to their partners and feel more secure in their relationships. Anxious people are more likely to endorse items such as "Others often are reluctant to get as close as I would like," "I often worry that my partner(s) don't really love me," and "I often want to merge completely with others, and this desire sometimes scares them away." Although avoidance and anxiety are continuously distributed measures, attachment researchers often use the terms "avoidant" and "anxious" to refer to people who score higher on these measures compared to those who score lower.

Prototypically *secure* people score lower on the anxiety and avoidance dimensions. Secure individuals are comfortable depending on their partners and having their partners depend on them in return. They enjoy closeness and emotional intimacy in relationships, and they do not worry about their partners withdrawing from or leaving them. Secure people are more likely to agree with items such as "I find it relatively easy to get close to others," "I'm comfortable having others depend on me," and "I'm confident others would never hurt me by suddenly ending our relationship." Because security is defined as scoring lower on avoidance and/or anxiety, inferences about attachment security in adult attachment studies focus on how people who score lower on avoidance and/or anxiety respond to different situations.

Nearly 25 years of research has identified several foundational correlates of these adult attachment orientations. Securely attached adults, for example, tend to have more positive views of themselves and close others (Bartholomew, 1990; Hazan & Shaver, 1987), which helps them develop and maintain more positive, optimistic, and benevolent views of their partners and relationships (Hazan & Shaver, 1994). The overarching goal that motivates securely attached people is to build greater closeness and intimacy with their attachment figures (Mikulincer, 1998). Because secure people are confident that their attachment figures are (or will be) available, attentive, and responsive to their requests for support, they directly turn to their partners for help when distressed. By adopting this "problem-focused" coping strategy (Lazarus & Folkman, 1984), secure people are able to deactivate their attachment systems more quickly and completely than insecure people, allowing them to resume other important life tasks (Mikulincer & Shaver, 2003). As a result, securely attached people spend comparatively less time, energy, and effort dealing with attachment-related issues. All of these characteristics allow secure people to have relatively happier, better functioning, and more stable romantic relationships (Feeney, 2008).

Anxiously attached adults harbor negative self-views and guarded but somewhat hopeful views of their romantic partners (Bartholomew, 1990; Hazan & Shaver, 1987). These ambivalent perceptions lead anxious persons to question their worth as relationship partners, resent how they have been treated in past relationships, worry about losing their current partner, and remain vigilant to signs that their partner could be pulling away (Cassidy & Berlin, 1994). Consequently, the central goal of anxiously attached persons is to increase their deficient level of felt security (Mikulincer, 1998), which sometimes leads them to behave in ways that smother or scare their partners away. Because anxious persons are uncertain about whether they can truly count on their partners to be available and supportive when needed, their working models amplify distress, which often makes them feel even *less* secure in their relationships. At the same time, however, they want to

believe that their attachment figures may eventually be attentive and responsive. As a result, anxious people rely on "emotion-focused" (Lazarus & Folkman, 1984) or "hyperactivating" (Mikulincer & Shaver, 2003) coping strategies when they are distressed. These strategies sustain and sometimes escalate their concerns, worries, and cognitive ruminations, which keeps their attachment systems activated for longer periods of time. Each of these characteristics explains why anxious individuals tend to be involved in less satisfying, poorly adjusted, and more turbulent romantic relationships (Feeney, 2008).

Research has confirmed that attachment anxiety is associated with the use of more negative emotional, cognitive, and behavioral regulation strategies. For example, anxious individuals frequently respond to stressful events with heightened emotional distress (Feeney & Kirkpatrick, 1996), and they remain distressed well after actual threats have abated (Rholes, Simpson, & Oriña, 1999). They typically generate negative explanations for their partners' ambiguous behaviors, frequently harboring thoughts that their relationships are in jeopardy and that their partners are unresponsive, not trustworthy, or deliberately rejecting them (Collins, 1996; Collins, Ford, Guichard, & Allard, 2006; Gallo & Smith, 2001; Pereg & Mikulincer, 2004). When their romantic partners display potentially relationship-damaging behaviors, anxious people usually respond defensively and destructively in return (Campbell, Simpson, Kashy, & Rholes, 2001; Gaines et al., 1997; Scharfe & Bartholomew, 1995), frequently displaying higher levels of anger, hostility, or coercive attempts to seek reassurance from their partners (Feeney, Noller, & Callan, 1994; Levy & Davis, 1988; Pistole, 1989; Simpson et al., 1996).

Avoidantly attached adults possess negative views of their attachment figures, and either positive self-views (in the case of dismissive-avoidants) or negative self-views (in the case of fearful-avoidants) (see Bartholomew, 1990). The primary goal of avoidant people is to create and maintain independence, control, and autonomy in their relationships (Mikulincer, 1998). They believe that seeking psychological or emotional proximity to their attachment figures is neither possible nor desirable. These beliefs impel avoidant people to use "distancing" (Lazarus & Folkman, 1984) or "deactivating" (Mikulincer & Shaver, 2003) coping strategies, which defensively suppress negative thoughts and emotions and increase independence and autonomy. Although their attachment systems appear to be quiescent, avoidant children (Vaughn & Sroufe, 1979) and adults (Dozier & Kobak, 1992; Mikulincer, 1998) are often physiologically aroused in stressful situations. All of these characteristics explain why avoidant people tend to have less close and less satisfying relationships that often end prematurely (Feeney, 2008).

Research has confirmed that avoidant individuals do use defensive deactivation strategies that limit intimacy and deny or suppress their

underlying need for closeness (Bowlby, 1980; Cassidy & Kobak, 1988; Crittenden & Ainsworth, 1989), and they actively strive to maintain autonomy, control, and emotional distance in their relationships (Fraley, Davis, & Shaver, 1996; Fraley & Shaver, 1998; Mikulincer, 1998; Shaver & Hazan, 1993). Nevertheless, they experience distress when their partners are not available or are unsupportive, particularly in stressful situations (Feeney & Kirkpatrick, 1996; Mikulincer, Florian, & Tolmacz, 1990; Wei, Vogel, Ku, & Zakalik, 2005). Avoidant individuals also experience elevated negative emotions during partner separations (Feeney & Kirkpatrick, 1996; Mikulincer, Florian, & Weller, 1993), make more negative attributions for their partners' ambiguous (and sometimes even positive) behaviors (Collins, 1996; Collins et al., 2006), engage in more defensive behaviors (Gaines et al., 1997; Pistole, 1989), and are less likely to use constructive conflict resolution tactics (Carnelley, Pietromonaco, & Jaffe, 1994; Simpson et al., 1996).

3. Attachment and Diathesis–Stress Models

In this section, we discuss diathesis–stress thinking within attachment theory. We begin by discussing how and why different sources of threat should reliably activate (switch on and make more accessible) attachment working models. We then discuss relationship-relevant events that ought to trigger the attachment systems of anxious and avoidant persons. Following this, we review the primary ways that stress has been conceptualized by attachment theorists, focusing on stress that is primarily external to relationships (stemming from physical or environmental events) or internal to them (stemming from events occurring within relationships), each of which can be either acute (temporary) or chronic (long-term). We then discuss Simpson and Rholes' (1994) original diathesis–stress model, which guided our program of research on person-by-situation attachment effects in the early-to-mid 1990s. We conclude the section by presenting a more recent and elaborate diathesis–stress process model that has guided our research in recent years.

3.1. Diathesis–stress thinking in attachment theory

Bowlby (1969, 1988) surmised that the attachment system becomes activated whenever individuals feel threatened or distressed. The principle activating conditions fall into three general categories: (1) *personal factors* (e.g., hunger, pain, fatigue, or illness), (2) *environmental factors* (e.g., frightening, dangerous, or overly challenging events), and (3) *relationship factors* (e.g., relationship conflict, discouragement of proximity by attachment

figures, prolonged absence of, separation from, or death of an attachment figure) (Mikulincer & Florian, 1998; Simpson & Rholes, 1994). Each of these threatening events has the potential to activate the attachment system by increasing the accessibility of working models and evoking behaviors designed to reduce distress and shut down the attachment system.

The cardinal (prototypic) emotional and behavioral tendencies of secure, anxious, and avoidant individuals should be witnessed in situations that trigger their attachment-relevant concerns, fears, worries, or unmet needs (Simpson & Rholes, 1994). Anxious people, for instance, should be more likely to display hypervigilance (by closely monitoring their partners or ruminating over "worst-case" relationship scenarios) in situations that lead them to question either their partners' love and commitment or the long-term stability of their relationship. Unless these situations pose extreme or chronic threats, they should *not* activate the working models of secure or avoidant people, neither of whom worries about relationship loss. Avoidant people, however, should be motivated to establish or regain autonomy and control in situations in which their independence could be at risk, such as when their partners expect or demand greater emotional intimacy than they feel comfortable providing, or when avoidant persons are afraid yet do not want to turn to their partners for support. Avoidant individuals should also be motivated to reestablish their independence when relationship responsibilities begin to encroach on other important areas of their lives, such as their work or recreational activities. Unless these situations pose severe or chronic threats, they should *not* trigger the working models of secure or anxious people, neither of whom worries about increasing closeness or commitment.

One of the most specific diathesis–stress attachment predictions was made by Bowlby (1988), who described how the stress associated with unsupportive partners during the transition to parenthood should elicit postpartum depression, especially in women who have an anxious attachment history. According to Bowlby (1988, Fig. 3, p. 177), the loss of a mother and/or receiving poor care early in life should produce anxious working models centering on feelings of helplessness and low self-esteem. These working models should make anxiously attached individuals crave proximity to and support from their attachment figures (romantic partners) in adulthood. When faced with the chronic and intense stress of having a baby, anxiously attached mothers should be vigilant to and concerned about the amount of support from their romantic partners. According to Bowlby (1988), if anxious women enter parenthood believing that their partners are not or will not be sufficiently supportive, the combination of the diathesis (their attachment insecurity) and the stress (facing a chronic life transition with deficient partner support) should—and does—trigger increases in depression during the postnatal period (Rholes et al., 2011; Simpson, Rholes, Campbell, Tran, & Wilson, 2003).

3.2. Simpson and Rholes' (1994) attachment diathesis–stress model

Guided by Bowlby (1969, 1973, 1980, 1988), we (Simpson & Rholes, 1994) were among the first attachment theorists to systematically tie diathesis–stress thinking with attachment principles. We distinguished between acute and chronic stressors and developed a model outlining how acute and chronic stressors should influence the manner in which secure, avoidant, and anxious adults think, feel, and behave, particularly in stressful situations involving their romantic partners. According to this model, acute stressors potentiate the need for proximity with attachment figures in virtually all people, temporarily increasing the accessibility of their working models. However, the specific *type* of stressor that individuals confront (i.e., whether it is external to or internal to their relationships) ought to affect how secure, anxious, and avoidant individuals respond, depending on how distressed they or their partners are in the situation. Avoidant individuals, for example, should be particularly troubled when they encounter external sources of stress (e.g., fear-inducing situations) that lead them to want comfort and support (perhaps unconsciously) yet, given their history of rejection, also lead them to anticipate that support will not be forthcoming. Anxious individuals should be particularly disturbed by internal sources of stress (e.g., jealousy, relationship conflict) that signal their relationships might be unstable and in jeopardy.

Simpson and Rholes (1994) also propose that individuals differ in how accessible their working models are in nonstressful situations, with anxious persons having more chronically accessible models and avoidant persons having less chronically accessible ones. These differences stem from each individual's attachment history along with the specific stressor that she or he is currently experiencing, especially when it is associated with unmet needs for proximity and support from attachment figures. Among people with higher chronic baseline levels of felt insecurity (anxious persons), weaker and more mundane events, such as minor personal slights or inconsiderate partner behaviors, should evoke their needs for proximity and support. Higher chronic baseline levels should also amplify the impact that working models have on interpersonal perceptions, emotions, and behaviors, even in nonstressful settings.

Highly chronic stressors such as persistent health problems or major life transitions should also activate the need for proximity and support in most people, particularly anxious ones. When stress becomes chronic, however, even good and sustained partner support might not fully deactivate the attachment system if threat and anxiety never completely abate. In these contexts, chronic stress may generate prolonged and sustained activation of the attachment system, increasing baseline levels of felt insecurity. Over time, this may produce increases in attachment insecurity in most people.

The most novel prediction of Simpson and Rholes' (1994) model centers on "steeling effects" in which strong yet manageable (and eventually resolvable) stress is necessary for permanently strong emotional bonds to form between relationship partners. When chronic stress is pronounced, individuals tend to feel more insecure, which gives relationship partners unique opportunities to offer and receive the type of unambiguous, unwavering support needed to galvanize relationships. Steeling effects, however, are most likely to occur when chronic stress is not too extreme and the less distressed partner in the relationship can serve as a secure base for his/her more distressed partner. Examples of steeling effect bonds have been documented in wartime combat buddies (Elder & Clipp, 1988; Milgram, 1986), female friends who have endured traumatic life events together (Woolsey & McBain, 1987), and traumatized children who have become resilient with the help of highly supportive mentors or parental figures (Garmezy, Masten, & Tellegen, 1984; Masten & O'Connor, 1989).

3.3. Simpson and Rholes' (2012) attachment diathesis–stress process model

The general principles of our 1994 diathesis–stress model guided our early thinking about how attachment processes influence what transpires in romantic relationships, particularly when partners or relationships are threatened. This model, however, does not depict all of the constructs, stages, and processes that reflect our entire program of research on how adult romantic attachment affects the way in which partners think, feel, and behave in stressful situations. The more comprehensive diathesis–stress process model that has guided and informed our most recent research is shown in Fig. 6.1.

Similar to most major theories, attachment theory has both a *normative* component that explains species-typical patterns of behavior and an *individual difference* component that explains how and why people sometimes differ in how they think, feel, and behave in certain situations. Our diathesis–stress process model can be viewed from both a normative (species-typical) and an individual difference viewpoint. We first describe the model from a normative attachment perspective and then describe it from an individual difference standpoint.

From a normative perspective, three types of negative events can activate the attachment system: (1) negative external events (e.g., dangerous situations, threatening events), (2) negative relational events (e.g., relationship conflict, separation from attachment figures, abandonment), and (3) cognitive/emotional stressors (e.g., imagined negative events that might occur). These events automatically evoke distress in all people, including those motivated to deactivate or suppress feelings of distress and vulnerability (i.e., avoidant individuals). Once aroused, distress automatically triggers the core (species-typical) attachment motivations to seek proximity,

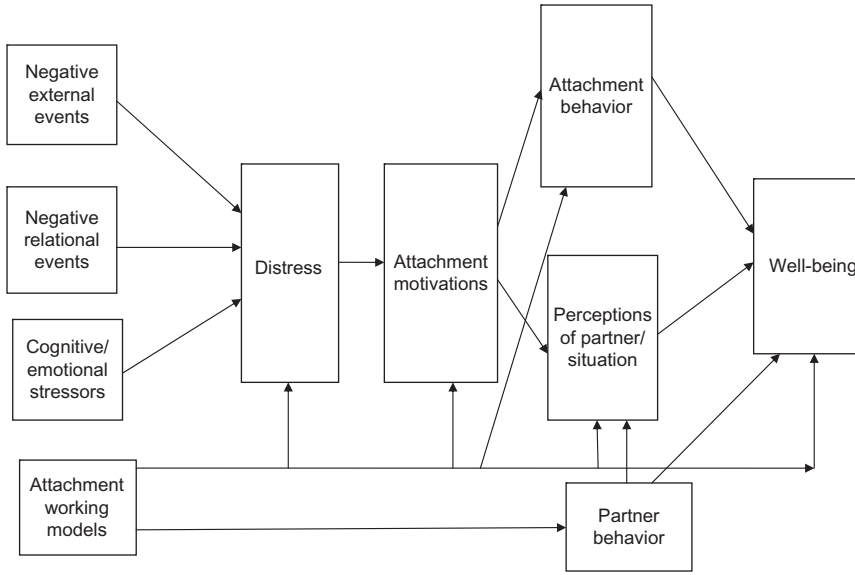

Figure 6.1 The attachment diathesis–stress process model.

support, and reassurance from attachment figures in virtually all people, even if they do not consciously feel or directly act on these basic motivations. These attachment motivations, in turn, elicit both attachment behaviors geared to mitigate and regulate distress (and hopefully deactivate the attachment system) and perceptions of the partner and current situation. Perceptions of the partner/situation can also be affected by how the partner behaves (i.e., what she or he says or does) in the situation. As we shall see, however, the specific attachment behaviors that individuals enact and the partner/relationship perceptions they have depends on their attachment histories and working models. These enacted behaviors and perceptions in turn influence the personal and relational well-being that individuals feel, report, or display in the stressful situation.

From a normative standpoint, attachment working models can affect all stages of this diathesis–stress process model, as depicted by the lines from attachment working models leading into each stage of the model shown in Fig. 6.1. For example, working models can influence how distressed individuals feel (or acknowledge feeling) in response to certain types of negative/stressful events, and they govern the specific types of attachment motivations that are evoked when distress is experienced (see below). Working models can also affect the types of attachment behaviors that individuals display once attachment motivations are triggered, how they perceive their partners within the situation, and how their partners behave.

Each of these pathways can impact the quality of personal and relational well-being during or following the stressful event, as indexed by relationship satisfaction, depression, relationship quality, and other outcomes. In isolated cases, working models may also exert a direct effect on well-being, independent of what else occurs in a specific stressful situation.[3]

From an individual difference perspective, our diathesis–stress process model highlights the different "pathways" that avoidant, anxious, and secure individuals should follow when they encounter certain types of distressing situations (see Fig. 6.1). When individuals with secure attachment histories experience distressing situations or events (relatively few of which should be caused by cognitive/emotional stressors), they should recognize that they are upset and might need help or assistance from their attachment figures, depending on the nature of the stressor and the skills they have to deal with it effectively. Given the positive nature of their working models, secure individuals should be motivated to manage distress by drawing closer to their partners physically and/or emotionally in order to increase closeness and intimacy with them (Mikulincer, 1998). This tendency should be facilitated by their use of problem-focused coping strategies, which allow secure people to resolve the current problem (i.e., the actual source of their distress) constructively, quickly, and completely with appropriate assistance from their attachment figures (Mikulincer & Shaver, 2003). The attachment behaviors that secure individuals enact should entail directly requesting and/or seeking proximity, comfort, and support from their attachment figures, which should help them dissipate distress so they can resume other important life tasks. Because of their positive working models and constructive, relationship-centered coping strategies, the *partners* of secure individuals should also react in more positive and constructive ways when secure individuals request comfort, care, or support from them (unless, of course, their partners are insecurely attached). Secure individuals should also perceive their partner's intentions, motives, and actions in the situation as more benevolent, sometimes even more so than they actually might be (i.e., positive partner illusions; see Murray, Holmes, & Collins, 2006). These positive perceptions of the partner and the situation should result in better personal and/or relational well-being following most stressful events.

The model pathways are different and divergent for the two types of insecurely attached people. When anxiously attached individuals are exposed to stressful events (more of which should be generated by cognitive/emotional stressors given their tendency to ruminate obsessively), they

[3] Though not depicted in Fig. 6.1, attachment working models may also affect how people perceive and imagine cognitive/emotional stressors. For example, individuals who have anxious working models should be more likely to envision and ruminate about "worst-case" outcomes that enhance distress and strengthen various pathways in the diathesis–stress process model shown in Fig. 6.1.

should be keenly aware that they are upset and should desire immediate, direct, and unqualified assistance from their attachment figures. Given the ambivalent and conflicted nature of their working models, anxious individuals should be motivated to reduce distress by doing whatever it takes to increase their sense of felt insecurity with their partners (Mikulincer, 1998). This process is likely to be exacerbated by their tendency to use emotion-focused/hyperactivating coping strategies (Mikulincer & Shaver, 2003), which direct their attention to the source of distress, trigger rumination about "worse-case" scenarios and outcomes, and divert attention away from how to constructively remove the stressor(s) that initially activated their attachment systems. Thus, the attachment behaviors that anxious individuals exhibit should take the form of intense and obsessive proximity, support, and reassurance seeking from their attachment figures (i.e., emotional clinginess), which often fail to fully abate their distress. Given their conflicted working models and use of emotion-focused coping styles, the *partners* of anxiously attached individuals should grow weary of having to continually provide "underappreciated" reassurance and support, which anxious individuals ought to view as signs of rejection. Anxious individuals should also perceive their partner's intentions, motives, and actions in less benevolent terms during the stressful situation, underestimating the amount of care and support that their partners have provided or are willing to provide in the future. These negative perceptions of the partner and situation should, in turn, generate less personal and/or relational well-being in the aftermath of most stressful events.

When grappling with stressful events (very few of which should be caused by cognitive/emotional stressors), avoidant individuals may often be unaware that they are upset, and they should neither want nor seek assistance from their attachment figures. In view of the negative and cynical nature of their working models, avoidant individuals should be motivated to reduce and contain distress by being self-reliant, which allows them to reestablish a sense of independence, autonomy, and personal control (Mikulincer, 1998). This process should be facilitated by their use of avoidant/deactivating coping strategies (Mikulincer & Shaver, 2003), which defensively suppress conscious awareness of their distress, attachment needs, and attachment behaviors, at least in the short-run (as for the long-run, see Berant, Mikulincer, & Florian, 2001). Consequently, avoidant individuals engage in attachment behaviors that permit some contact with their attachment figures, but at a safe and emotionally comfortable distance and on terms dictated by avoidant individuals. Given their negative working models and avoidant/deactivating coping tactics, the *partners* of avoidant individuals should typically offer less reassurance and support to them, which avoidant individuals should prefer but still might interpret as evidence of rejection. Avoidant individuals should also perceive their partner's intentions, motives, and behaviors in the stressful situation in less

benevolent ways, often underestimating the amount of care and support that their partners are willing to provide or have already given them. These negative partner and situation perceptions should, in turn, produce less personal and/or relational well-being in the wake of most stressful events.

4. Review of Diathesis–Stress Attachment Studies

During the past two decades, several studies have documented diathesis–stress attachment effects (see Mikulincer & Shaver, 2007a, 2007b for reviews). Much of this research has focused on how experimentally manipulated sources of threat cause individuals to process information differently (e.g., Mikulincer, Gillath, & Shaver, 2002). Some of the most programmatic research on this topic has been conducted by our research group. For the past 20 years, we have tested attachment diathesis–stress effects in various situations that, according to attachment theory, should reliably activate the attachment systems of secure, anxious, and avoidant people. Our attention has focused on how different types of threat affect *behavior*—what people actually say and do in specific situations—in the context of their romantic *relationships*. This body of research, which is reviewed below, has also examined the unique role that different types of stress have in eliciting the quintessential behavioral and emotional features—the *relational signatures*—of attachment security, anxiety, and avoidance.

In this part of the chapter, we review more than 20 published studies from our labs that have examined three major sources of stress: (1) acute stress that is external to the relationship, (2) acute stress that is internal to the relationship, and (3) long-term/chronic stress (see Fig. 6.1). When describing the results of these studies, we report effects for "avoidant" and "anxious" people (i.e., for people who score high on these attachment dimensions). It is important to keep in mind that attachment security is reflected by lower scores on attachment anxiety and/or avoidance, and reported findings for anxiety and avoidance refer to statistical comparisons between individuals who score high versus low on each attachment dimension. It is also important to realize that each study reported below was designed to test only portions (i.e., specific paths) of the general diathesis–stress model shown in Fig. 6.1, and several paths have been tested in research conducted by other investigators.

4.1. External/acute stress

As shown in Fig. 6.1, one major type of stress is both acute and external to one's current relationship. Bowlby (1969, 1973) devoted considerable attention to how temporary, environmentally based stressors, such as

dangerous, fear-inducing, or anxiety-provoking events, ought to activate the attachment systems of all people. The way in which individuals react to these stressors, however, should depend on their unique attachment histories and working models. Several laboratory experiments have confirmed that presenting people with subliminal or supraliminal threatening stimuli (e.g., threatening words, pictures) does increase the accessibility of mental representations of attachment figures (e.g., Mikulincer, Birnbaum, Woddis, & Nachmias, 2000; Mikulincer et al., 2002).

We now review our research that has tested whether and how different forms of external/acute stress affect the way in which anxious, avoidant, and secure people think, feel, and particularly behave in relationship contexts. We first describe a series of fear-induction studies, followed by a series of studies that have manipulated external relationship threats. Each of these studies involves external/acute stressors.

4.1.1. Fear/anxiety-induction studies

One of the most basic questions in the attachment literature is how do attachment bonds form between unacquainted people? Bowlby (1969) conjectured that initial feelings of attachment security should develop when an individual is distressed and another person (a potential attachment figure) provides a sense of protection and a "safe haven" from the stressful experience. Attachment bonds, therefore, should be forged in response to stress→relief experiences in which distressed individuals learn they can find a "safe emotional refuge" in another person, which reduces their negative affect (Mikulincer & Shaver, 2007b; Simpson & Rholes, 1994).

To test this idea, Beckes, Simpson, and Erickson (2010) exposed individuals to a backward conditioning paradigm. In this experiment, individuals saw subliminally presented pictures of fear-inducing stimuli (a striking snake or injured people) and neutral stimuli (kitchen items) for 14 ms. Each subliminal prime was repeatedly paired with (backward conditioned to) photos of strangers who either were smiling or had neutral facial expressions. Once each face had been backward conditioned to either a fear-inducing image or a neutral image over 20 conditioning trials, individuals then did a lexical decision task. As part of this task, each conditioned face first appeared on a computer screen for 500 ms immediately before individuals saw a series of letters. Their task was to indicate whether the letters formed a word or a nonword as quickly and accurately as possible. Four types of words were presented: secure words, insecure words, positive nonattachment words, and negative nonattachment words. According to attachment theory, people should start to feel a sense of attachment security toward strangers who appear more receptive (are smiling) when they are distressed, but not under other circumstances. As predicted, individuals identified secure words more quickly when they saw a smiling face of a stranger who had previously been conditioned with a *threatening* subliminal

stimulus (a striking snake or injured people) during the earlier conditioning trials. These results suggest that attachment security begins to form in response to stress→relief episodes rather than other types of interaction sequences.

The primary focus of our research on external/acute stressors, however, has been on how individuals *behave* with their romantic partners when they are exposed to stressful events in their immediate environment. Our first diathesis–stress study (Simpson, Rholes, & Nelligan, 1992) examined how adult attachment orientations moderate *support giving* and *support seeking* in romantic couples when one partner is induced to be upset and in need of support, while the other partner is not distressed and in a position to provide it. In this first behavioral observation study, we unobtrusively videotaped dating couples while the female partner was waiting to do an activity that ostensibly produced fear and anxiety in most people. To induce fear/anxiety, each female partner was told:

> In the next few minutes, you are going to be exposed to a situation and set of experimental procedures that arouse considerable anxiety and distress in most people. Due to the nature of these procedures, I cannot tell you any more at the moment. Of course, I'll answer any questions or concerns you have after the experiment is over.

The experimenter then led the female partner to a room normally used for psychophysiological research. The experimenter opened a heavy metal door, exposing a dark, windowless room that looked like an isolation chamber and contained psychophysiological equipment. The experimenter made sure each female peered into the room and saw the equipment. The experimenter then stated that the equipment was "not fully set up," after which she or he led the female back to the waiting room. The experimenter then escorted the male partner to the waiting room and left each couple alone for 5 min. Nothing was said to the male partner about his partner's impending stressful situation. During this time, the couple's spontaneous interaction was unobtrusively videotaped.

Trained observers then watched each videotaped interaction and rated how distressed and how much support each female partner sought during the 5-min waiting period and how much support her male partner offered (on Likert-type rating scales). High- and low-avoidant partners differed noticeably in the amount of support they both sought or gave, depending on how distressed the female partner was during the waiting period. As shown in Fig. 6.2, if women were less avoidant (i.e., more secure), they sought more support when they were more distressed but sought less support when they were less distressed. Conversely, highly avoidant women sought *less* support when they were more distressed and *more* support when they were less distressed. Less avoidant (more secure) men provided more support when their partners appeared more distressed

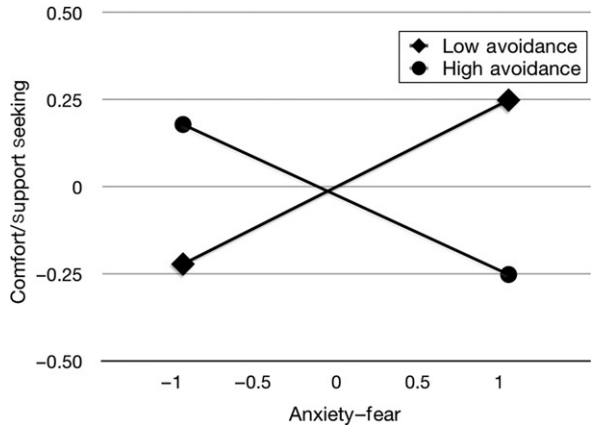

Figure 6.2 The relation between observer-rated anxiety/fear and comfort/support seeking for high and low avoidant women (from Simpson et al., 1992). Regression lines are plotted for women scoring 1 SD above and below the sample mean on avoidance. Values for anxiety/fear and comfort/support seeking are presented in SD units.

(regardless of their female partner's attachment orientation), whereas more avoidant men offered *less* support when their partners were *more* upset and more support when they were less upset. However, if the partners of highly distressed avoidant women were able to "break through" and provide more support, highly avoidant women benefitted the most from receiving support, as indicated by raters evaluating them as appearing most "calmed." In sum, consistent with our diathesis–stress model (see Fig. 6.1), this initial behavioral observation study confirmed that, when stress is external and acute, highly avoidant women pull away from their romantic partners when they are more upset, and more avoidant men offer less support when their partners are more upset, whereas the reverse is true of securely attached women and men.

We have found conceptually similar effects when the support-giving and support-receiving roles are reversed (when men are waiting to do a stressful task with their nonstressed female partners) and when a different attachment measure (the Adult Attachment Interview [AAI]) is used. Simpson, Rholes, Oriña, and Grich (2002) videotaped dating couples while the male partner was waiting to do the same anxiety-provoking activity described above as his female partner waited with him, believing that she would be doing a nonstressful activity. After the study, trained observers rated how distressed and how much support each male partner sought and how much support his female partner provided on Likert-type scales. Women who had more secure representations of their *parents* (based on their AAI scores) and whose dating partners sought more support actually provided more support

than less secure women did. Secure women, however, provided *less* support if their male partners did not directly request it. This pattern of "situationally contingent support" is similar to how the mothers of securely attached children behave when their children are upset. When their children are distressed and require assistance, the mothers of secure children directly and actively offer guidance and help; however, when their children can solve tasks on their own, these mothers step back and let their children solve problems on their own, which increases the child's skills and competence.

Other investigators have documented similar patterns of findings involving external/acute stressors. Fraley and Shaver (1998), for example, observed and rated what romantic couples did while they were separating in an airport terminal, after which they measured each partner's attachment orientation. As separation loomed in this distressing situation, avoidant individuals were less likely to seek physical contact with their partners and more likely to engage in avoidance behaviors (e.g., looking elsewhere, watching TV, turning away, appearing distracted) than were less avoidant (more secure) individuals. These findings are consistent with other laboratory experiments, which show that simply thinking about death increases proximity seeking more in securely attached persons than in insecurely attached ones (Mikulincer & Florian, 2000; Taubman Ben-Ari, Findler, & Mikulincer, 2002).

In sum, consistent with both attachment theory and our diathesis–stress process model, avoidantly attached people are *not* poorer support seekers and poorer support providers in general; they are deficient only when they (or their partners) are upset and support seeking or support giving is prescribed by the situation. Moreover, securely attached people do not always seek or provide greater support; rather, they do so primarily when they (or their partners) are distressed and direct emotional support truly needs to be sought or offered.

We have also investigated how fear-inducing situations differentially influence the display of *anger* directed toward romantic partners. In another behavioral observation study, Rholes et al. (1999) induced fear/anxiety in women by telling them they were going to engage in an anxiety-provoking activity (described above). While women waited with their dating partner for the activity to begin, each couple's interaction was videotaped during a 5-min "stress" period. Each couple was then told that, due to malfunctioning equipment, the woman would *not* have to do the stressful activity, after which each couple was videotaped during a 5-min "recovery" period. After the study was over, the behavior of both partners was coded during each period (stress and recovery) by trained raters on Likert-type scales. Avoidant men displayed greater anger toward their distressed partners during the stress period than less avoidant (more secure) men did, especially if their partners appeared more distressed or sought more support from them during the stress period. Avoidant women also displayed greater anger toward their

partners than less avoidant (more secure) women did, particularly if they were more distressed and received less support during the stress period or if they encountered anger from their male partners. During the recovery period, anxiously attached women behaved much more negatively toward their partners, especially if they had been distressed during the stress period or had sought support from their partners.

These findings make sense when viewed in the context of our diathesis–stress model (see Fig. 6.1). During the stress period, the attachment systems of women should have been activated by the impending anxiety-provoking event; the attachment systems of men, in contrast, should have been elicited indirectly by their *partner's* distress and bids for support (Kobak & Duemmler, 1994). During the recovery period, the stressor—and therefore the need to seek or give support—was removed. As a result, the recovery period gave both partners—especially women—an opportunity to evaluate their relationships based on how their partners had just behaved during the stress period. The stress period should have been (and was) particularly difficult for avoidant persons because it accentuated emotional dependence and caregiving, issues that avoidant people try to circumvent whenever possible (Bowlby, 1973). The recovery period should have been more difficult for anxious persons because their deep-seated relationship worries and concerns should make them question their partners' true feelings and actual level of commitment (Cassidy & Berlin, 1994). Thus, having the opportunity to reflect on their partners' actions in the stress period during the nonstressful recovery period should have been especially important to anxious people.

Although not depicted in Fig. 6.1, some of these effects may be contingent on the amount of *dependence* that individuals have on their partners and relationships. For example, reanalyzing data from the Simpson et al. (1992) study, Campbell et al. (2001) found that avoidantly attached individuals behaved more "negatively" toward their partners during the stressful 5-min waiting period (i.e., they were rated as being more likely to distance themselves from their partners, display more negative emotions, act in a more irritated manner, and be more critical of their partners) (cf. Collins & Feeney, 2000; Feeney, 2004). Individuals also behaved more negatively if their *partners* were more avoidant. Most importantly, however, avoidance and the degree of dependence on the partner/relationship also interacted to predict how *both* relationship partners behaved during the stressful waiting period. In particular, less avoidant (more secure) and more dependent individuals behaved the *least* negatively toward their partners during the waiting period, whereas more avoidant and less dependent people behaved the most negatively.

These findings are also consistent with our diathesis–stress model (see Fig. 6.1). People who view attachment figures as more trusting and caring (i.e., secure individuals) should act less negatively when they are distressed,

especially if they have forged more closeness and dependence with their partners. Conversely, people who hold more negative views of their attachment figures should behave more negatively, especially if they have not developed dependence, which is true of many avoidant people. Even though avoidant people generally behave more negatively toward their partners when they are upset, they respond even *more* negatively if they are not dependent on them. Similarly, although more dependent people usually respond less negatively toward their partners, they tend to be most responsive and behave even *less* negatively when they are less avoidant (more secure). In sum, both avoidant attachment and relationship dependence are important in fully understanding how people behave toward their romantic partners in external/acute stressful situations.

4.1.2. Relationship threat studies

A second major set of external/acute stress studies have tested how threats posed by attractive alternative partners and other transient relationship-related threats affect individuals who have different attachment orientations. A central question in attachment research has been what are anxiously attached people thinking and feeling during relationship-threatening situations that might explain why their relationships tend to be so turbulent and unhappy?

To address this question, Simpson, Ickes, and Grich (1999) examined how attachment orientations are associated with *empathic accuracy* when relationships are under threat. Empathic accuracy is the degree to which one partner can accurately infer the private thoughts and feelings of his/her partner during a conversation. Simpson et al. (1999) had dating couples try to infer what their partners were actually thinking and feeling (from a videotape of their interaction) while both partners rated and discussed slides of attractive opposite-sex people who ostensibly were interested in "meeting and dating new people on campus." This slide-rating task was designed to be relationship threatening, especially for anxiously attached people. In this taxing situation, anxious individuals were better at inferring the relationship-threatening thoughts and feelings that their partners were having about the attractive opposite-sex stimulus persons they were rating and evaluating. Anxious people, in other words, got more directly "into the heads" of their romantic partners in this relationship-threatening situation, displaying cognitive hypervigilance. Less anxious (more secure) persons, in contrast, were much less empathically accurate. More empathically accurate anxious individuals also perceived that their relationships were less stable and they felt more threatened and upset during the slide-rating task. They also reported declines in feelings of closeness to their partners immediately following the task. Finally, anxious individuals who were more empathically accurate were more likely to break up with their partners 4 months later. This study was among the first to document that anxiously attached

people work to "get into the heads" of their partners and accurately infer their relationship-threatening thoughts and feelings, precisely when what they value the most—their relationships—are in jeopardy. Consistent with our diathesis–stress model, anxious people are not more empathically accurate in general; instead, they are more accurate in situations that threaten their relationships.

Most recently, we have examined how externally imposed relationship threats impact sexual desire and the reasons for having sex. In two experiments, Birnbaum, Weisberg, and Simpson (2011) asked individuals to imagine either relationship-threatening or nonrelationship-threatening scenes. They then rated the strength of their desire to have sex and the reasons (motives) for doing so. Across the entire sample, relationship threat increased the desire to improve one's current relationship as well as pro-relationship motives in the majority of people, indicating that most people engage in sex following relationship threats to feel better and to bolster their threatened relationships. Avoidant individuals, however, were least likely to desire their partners sexually after experimentally induced threats, which is consistent with their reliance on distancing/deactivating strategies. Anxious individuals, by comparison, were least likely to want sex for hedonistic reasons after experimentally induced threats, reflecting their inability to enjoy sex once they become flooded with emotion-focused relationship concerns.

These findings fit well with other studies that have tested diathesis–stress predictions. For example, when they are asked to imagine being permanently separated from their attachment figures, anxiously attached people report stronger emotional responses (e.g., more distress and self-blame) than do less anxious (more secure) people, whereas avoidant people do not react emotionally to separation threats (Mayseless, Danieli, & Sharabany, 1996; Scharf, 2001). Avoidant men do, however, report being less emotionally distressed following romantic relationship break-ups (Simpson, 1990). Similarly, when they are asked to write about the thoughts or feelings they are having while trying to suppress thoughts of their romantic partners leaving them, anxious individuals find it more difficult to suppress thoughts of abandonment, whereas avoidant individuals can do so and have lower autonomic responses (indicative of less anxiety) (Fraley & Shaver, 1997). Avoidant individuals often accomplish suppression, at least in part, by not encoding potentially threatening information (Fraley, Garner, & Shaver, 2000).

In summary, our external/acute stress studies have documented that secure, avoidant, and anxious persons think, feel, and behave very differently when they confront external, acute stressors with their romantic partners, which in turn affects their personal and relational well-being. When securely attached people encounter acute/external stressors, they directly turn to their partners for comfort, help, and support. And when

securely attached individuals are interacting with distressed partners, they provide good, situationally appropriate care, help, and support. Both of these processes are facilitated by the benevolent working models, prorelationship motives, and optimistic partner and relationship perceptions harbored by secure people. The end result is better personal and relational well-being following external/acute stressors, as indexed by a wide array of well-being outcome measures. When avoidantly attached individuals encounter acute/external stressors, they typically wall themselves off and withdraw from their partners, and when their partners are overtly distressed, avoidant individuals pull away and fail to provide sufficient support. These tendencies result in poorer personal and relational outcomes in the aftermath of external/acute stressors. When anxiously attached individuals encounter acute/external stressors, they become hypervigilant which, in combination with their distrusting and ruminating working models, has deleterious effects on various measures of both personal and relational well-being.

4.2. Internal/acute stress

We now turn to the second major type of stress in our diathesis–stress process model, namely stress that is acute and internal to the relationship (see Fig. 6.1). Some of the strongest forms of stress do not stem from external threats, but from stress-inducing behaviors enacted by relationship partners (Hammen, 2000; Simpson & Rholes, 1994). If they are powerful enough, these internal/acute stressors can also activate the attachment system in most people. How people manage these stressors, however, should depend on their attachment histories and associated working models. We now review another series of studies from our research that have tested how different forms of internal/acute stress influence the way in which secure, anxious, and avoidant individuals think, feel, and behave in relational contexts.

4.2.1. Relationship conflict studies

A number of our studies have examined how relationship-based sources of stress are related to the enactment of different conflict resolution strategies and tactics, depending on the attachment orientations of each relationship partner. In the first study in this line of work, we (Simpson et al., 1996) randomly assigned dating couples to discuss either a major or a minor unresolved problem in their relationship. The instructions for the discussion were adapted from Gottman's (1979) classic dyadic interaction paradigm. Partners assigned to the major problem condition were asked to jointly identify the most significant unresolved problem in their relationship. Once they agreed on the problem, they were asked to think about the last major

argument or disagreement they had about the topic/issue and to resolve it as best they could. Specifically, partners were told to:

> Remember what you were arguing about and why you were upset with your partner. Remember what you were thinking about and how you felt during the argument. After remembering these things, we would like you to discuss this issue with each other. We'd like each of you to tell the other what it is about his or her attitudes, habits, or behaviors that bothers you. Please discuss the issue in detail.

Partners assigned to the minor problem condition identified a minor relationship-based problem and were given the same set of instructions asking them to discuss and try to resolve the minor problem.

Each couple was videotaped, and the discussions were then coded by trained observers. Consistent with attachment theory and our diathesis–stress model (see Fig. 6.1), anxiously attached individuals were rated by observers as behaving less positively toward their partners, but only when they were trying to resolve a *major* problem that could pose a threat to their relationship. Anxious individuals who discussed a major problem exhibited greater distress and more discomfort during these conflict discussions, and they reported feeling more anger and animosity toward their partners. Once their discussions ended, they viewed their partners and relationships less positively in terms of the amount of love, commitment, mutual respect, openness, and supportiveness that existed in the relationship. Moreover, anxious women who discussed a major problem had discussions rated as lower in quality of resolution (see Fig. 6.3). Thus, consistent with both our

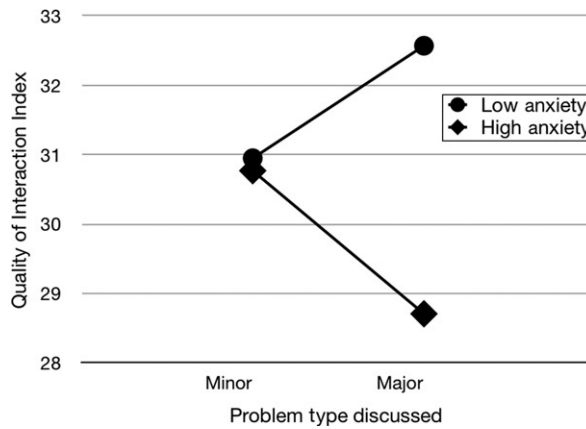

Figure 6.3 The relation between severity of the relationship problem and observer-rated quality of the discussion for high and low anxious women (from Simpson et al., 1996). Regression lines are plotted for women scoring 1 SD above and below the sample means.

diathesis–stress model and attachment theory, anxious people do not behave in a dysfunctional manner in all relationship conflict situations; they do so primarily in stressful situations that threaten the stability and quality of their valued relationships. Less anxious (more secure) individuals, by comparison, react in a more functional manner, especially when trying to resolve major relationship conflicts.[4]

These findings dovetail nicely with other social interaction research by Collins and Feeney (2000), who have investigated support seeking and support giving when couples discuss personal problems. In these videotaped discussions, avoidantly attached individuals are less inclined to seek support from their partners in order to solve their problems, whereas anxiously attached people use indirect means of soliciting support, most likely because they worry that direct requests might be rebuffed or ignored by their partners.

We have also tested how people with different attachment orientations respond to less difficult but still stressful daily relationship conflicts. Campbell, Simpson, Boldry, and Kashy (2005) asked dating partners to complete daily diaries for 14 days. After the diary period ended, each couple was videotaped trying to resolve the most serious unresolved problem that arose during the diary period. Anxiously attached individuals perceived greater daily conflict in their relationships across the diary period, significantly more than their partners perceived. They also perceived that daily conflict was more likely to harm the future course of their relationships. Furthermore, on days when they perceived greater relationship conflict, anxious individuals assumed that their partners had a more negative outlook on their relationship and its future, a view that typically was *not* shared by their partners. When dating partners discussed the most serious conflict in the lab following the diary phase, anxious individuals reported and were rated as more distressed, even after controlling for how positively their partners had behaved toward them during their lab discussion. Less anxious (more secure) individuals showed the opposite patterns in both the diary and the lab phases of this study.

Recently, we have expanded our research to explore how people with different attachment orientations remember how they behaved during stressful discussions with their romantic partners. We (Simpson, Rholes, & Winterheld, 2010) had dating couples engage in two videotaped discussions of major, unresolved conflicts in their relationship. Immediately

[4] In other longitudinal research, Simpson, Collins, Tran, and Haydon (2007) have found that individuals classified as secure in the Strange Situation at 12–18 months of age are more likely than those classified as insecure to experience positive emotions in their adult romantic relationships and less negative affect during conflict resolution discussions with their romantic partners approximately 20 years later. Furthermore, both individuals who were securely attached early in life and their adult romantic partners show better immediate emotional recovery from conflict discussions as young adults (Salvatore, Kuo, Steele, Simpson, & Collins, 2011).

following the discussions, each partner reported how supportive and emotional distant he or she was during each discussion. One week later, both partners returned to the lab and were asked to recall how supportive and emotionally distant they had been 1 week earlier. Avoidant individuals remembered being less supportive 1 week later, but only if they were rated by trained raters as being more distressed during the original discussions. Anxious individuals remembered being less emotionally distant, but only if they were rated as more distressed during the discussions. These memory biases are consistent with the chronic needs and goals of avoidant and anxious people. Avoidant people yearn to limit intimacy and to maintain autonomy and control in their relationships and thus remember themselves as being less supportive, particularly during more difficult conversations with their partners. Anxious people, in contrast, crave greater felt security, so they remember themselves as being less emotionally distant (emotionally closer), particularly if their conversations were difficult.

We have also tested how relationship conflicts are associated with empathic accuracy in people with different attachment orientations. In Study 1, Simpson et al. (2011) videotaped married couples while they discussed either a major or a minor relationship issue that centered on intimacy or jealousy topics. In Study 2, dating couples were videotaped while they tried to resolve a serious relationship conflict. In general, avoidant individuals were less empathically accurate in both studies, opting to not "get into the heads" of their partners. Consistent with our diathesis–stress model (see Fig. 6.1), anxious individuals were more empathically accurate when discussing intimacy issues that posed a potential threat to their relationship (in Study 1), and if they were more distressed (rated by observers) while discussing a serious relationship conflict (in Study 2). Viewed together, these findings reveal how anxious and avoidant people differentially "manage" empathic accuracy in the service of regulating negative affect and promoting their interpersonal goals. Avoidant individuals refuse to "get into the heads" of their romantic partners during relationship conflicts, which is consistent with their use of deactivating coping strategies. Anxious individuals cannot resist "getting into the heads" of their partners, despite the fact that doing so might expose them to relationship-damaging thoughts or feelings their partners could be harboring.

The pattern of attachment to one's parents (assessed by the AAI) is also systematically related to the type of caregiving that "works best" in calming secure and insecure people when they are upset during stressful discussions. We (Simpson, Winterheld, Rholes, & Oriña, 2007) had romantic partners first complete the AAI. One week later, each couple came to the lab and was videotaped trying to find solutions to an important current problem in their relationship. Trained observers then rated each discussion at peak distress points for the degree to which (a) emotional, instrumental, and physical

caregiving behaviors were displayed by the less distressed partner; (b) distressed care recipients appeared to be calmed by their partner's caregiving attempts; and (c) each partner was distressed during the discussion. Individuals who had secure representations of their parents were rated as more calmed if their partners gave them more emotional care (e.g., encouraging the partner to talk about his/her emotions or experiences with the problem, being nurturant/soothing, expressing/sharing emotional intimacy and closeness), especially at points when they were most visibly upset during the discussion. Conversely, individuals who had avoidant representations of their parents were more calmed by instrumental caregiving from their partners (e.g., receiving specific advice or suggestions for how to solve the problem, discussing the problem in an intellectual or rational manner), especially at points when they were most upset. In sum, as predicted by attachment theory and consistent with our diathesis–stress model, securely attached people benefit more from emotional forms of support, which they probably received earlier in life. Avoidant people benefit more from instrumental support (see also Mikulincer & Florian, 1997). Avoidant people, in other words, *do* benefit from certain forms of support, particularly those that do not threaten their independence and autonomy.

4.2.2. Accommodation/capitalization studies

We have also investigated two other forms of internal/acute stressors that ought to influence how people with different attachment orientations think, feel, and behave with their romantic partners: *accommodation situations* (in which partners try to jointly negotiate issues on which they hold different initial opinions) and *capitalization situations* (in which one partner discloses a positive event or experience while the other partner listens and responds to the positive disclosure). Both of these situations have the potential to be stressful, especially for insecurely attached people.

Tran and Simpson (2009) investigated emotional and behavioral reactions to threatening accommodation situations in married couples. Specifically, they had married couples identify and discuss issues that required significant concessions by one or both partners. The discussions were videotaped and then coded by trained observers. Although anxious attachment hindered each partner's tendency to behave constructively during these difficult discussions, greater relationship commitment buffered anxiously attached partners from their insecurities. For example, partners who were both highly anxious and highly committed felt less rejection from their partners, perceived greater acceptance from them, and displayed more constructive accommodation behaviors as rated by observers. In other words, anxious individuals behaved in a more constructive and accommodative fashion if they—and especially if their *partners*—were more committed to the relationship. Commitment,

therefore, is another important variable that buffers anxiously attached people from "acting" on their insecurities.

At first glance, one might presume that sharing good news with a partner should not be very stressful. According to attachment theory (Bowlby, 1973), however, perceptions of stress should depend on an individual's needs and motives in a given situation. Anxious individuals should want to share positive events with their partners in order to feel more secure in their relationships, but they should react very negatively if their partners are not good responders. Avoidant individuals, however, should not want to share or receive positive disclosures, which might generate excessive closeness and emotional intimacy.

To test these ideas, Shallcross, Howland, Bemis, Simpson, and Frazier (2011) had dating couples discuss positive events in the lives of each partner. In one discussion, the male partner disclosed a positive personal event, while his female partner listened and responded as she wished. In a second discussion, the roles were reversed. Trained observers then rated both videotaped discussions. Avoidant responders (those who listened to a positive event being discussed by their partner) reported and were rated as being less responsive during these discussions, particularly if their disclosing partner was anxiously attached. Avoidant disclosers also underestimated how responsively their partners behaved compared to observers' ratings. Anxious responders underestimated their own responsiveness when their disclosing partners were avoidantly attached. In sum, insecurely attached people were less responsive and perceived less responsiveness in their partners during these capitalization discussions than did less anxious and less avoidant (more secure) persons. This was particularly true when anxious people disclosed positive events to avoidant responders, confirming that anxious and avoidant attachment pairings may be especially troublesome (cf. Kirkpatrick & Davis, 1994).

In summary, our internal/acute stress studies have confirmed that secure, avoidant, and anxious persons also think, feel, and behave quite differently when they encounter acute relationship-centered stressors with their romantic partners, which in turn affect their personal and relational well-being. When anxiously attached people encounter internal/acute stressors, they perceive their partners and behave in more dysfunctional and relationship-damaging ways, a tendency that is amplified by their proclivity to "get into the heads" of their partners and accurately infer relationship-threatening thoughts and feelings, even when doing so might harm their relationship. Avoidant individuals, in contrast, disengage behaviorally, emotionally, and cognitively when exposed to internal/acute stressors, opting to retract from and avoid getting into the heads of their partners. However, greater dependency on the relationship or greater partner commitment buffers insecure people from acting on the potentially harmful

effects of their insecure working models. Secure individuals, however, typically think, feel, and behave in more constructive ways, especially when acute relationship-based stress is high. These tendencies help secure people experience and maintain higher levels of personal and relational well-being.

4.3. Long-term/chronic life stress

Most of the research discussed to this point has examined stress created in a laboratory setting. The purpose of the next set of studies was to examine the impact of naturally occurring stressors, which are likely to entail a combination of external and internal sources of stress over time. Two major naturally occurring stressors were investigated. First, we conducted two longitudinal studies of the transition to parenthood, the taxing period surrounding the birth of a couple's first child. This difficult period of life often has adverse effects on marital satisfaction and the quality of couple interactions (Belsky & Pensky, 1988). Our goal in these studies was to determine whether (and why) the negative effects of the transition to parenthood are found primarily among persons who have insecure (avoidant or anxious) attachment orientations. Second, we conducted a large cross-cultural study of the correlates of the avoidant attachment in which we compared people who were living in individualistic or collectivistic cultures. We conjectured that the incongruence between avoidant tendencies and the prescribed norms concerning what close relationships should entail in more collectivistic cultures should be a form of stress that heightens negative relationship outcomes (e.g., dissatisfaction) commonly associated with avoidance.

4.3.1. Transition to parenthood studies

The period surrounding the birth of a first child is one of the most joyful but also most stressful times that couples ever face, making it an ideal phase of life during which to test diathesis-stress processes. During the transition to parenthood, couples must cope with a wide range of stressors, including dramatic role changes, fatigue, new family demands, financial strain, and work–family conflict. Although the transition enhances marital well-being in some couples (Cowan & Cowan, 2000), most partners experience sharp downturns in marital satisfaction, declines in companionate activities, and increases in conflict (e.g., Belsky & Pensky, 1988; Doss, Rhoades, Stanley, & Markman, 2009). Attachment theorists such as Bowlby (1988) and Mikulincer and Florian (1998) have proposed that attachment insecurity should render certain people more vulnerable to marital distress and related negative outcomes during the transition period. In our program of research, we have examined how attachment anxiety and avoidance are systematically related to three outcomes indicative of well-being: changes in marital

satisfaction, depressive symptoms, and attachment orientations. In this research, we have tested the basic hypothesis that events or conditions (e.g., the quality of spousal support, the presence of relationship conflict) experienced during the transition to parenthood that activate the fundamental worries or concerns of persons who have avoidant or anxious attachment orientations should have adverse effects on their well-being over time.

In this section, we review the findings of two longitudinal transition to parenthood studies. The first transition study started 6 weeks before the birth of each couple's first child and ended when their child was 6 months old. This first study focused on women's well-being in relation to what their male partners did while in the role of potential support providers. We examined three markers of well-being: marital satisfaction, depression, and changes in attachment orientations across the transition. The second transition study tested both how husbands support their wives and how wives support their husbands across a longer time period (the first two years of the transition). Two measures of well-being—marital satisfaction and depressive symptoms—were investigated in this longer and more detailed transition study.

In our first 6-month transition study, we (Rholes, Simpson, Campbell, & Grich, 2001) found that, under specific conditions, women who have insecure attachment orientations experience more negative outcomes at 6 months postpartum. For example, as shown in Fig. 6.4, marital satisfaction

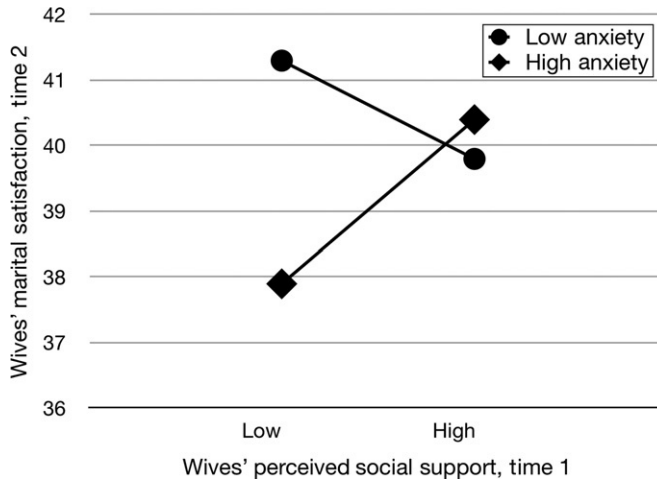

Figure 6.4 The relation between women's attachment anxiety and their perceptions of prenatal spousal support predicting over-time changes in their marital satisfaction (from Rholes et al., 2001). Regression lines are plotted for women scoring 1 SD above and below the sample mean.

declined significantly from the prenatal to the 6-month postnatal testing period in more anxiously attached women if, at the prenatal session, they perceived their husbands were less supportive. According to attachment theory (Bowlby, 1973), perceptions of deficient support should increase fears of abandonment, especially in highly anxious women who need support and are already preoccupied with thoughts of possible abandonment.[5] These deep-seated fears are likely to be the root cause of marital dissatisfaction among highly anxious women during the transition to parenthood (Bowlby, 1988). Conversely, the relative absence of worries about abandonment may explain why perceptions of lower spousal support did not reduce marital satisfaction in less anxious (more secure) women; such women remained confident that their relationships were not in jeopardy.

Statistical interactions between women's attachment anxiety and their perceptions of their spouses' degree of supportiveness also produce several other effects. For example, highly anxious women who perceived their spouses as less supportive during the prenatal testing session reported larger prenatal-to-postnatal declines in the amount of support that was available from their husbands, and these changes fully mediated their declines in marital satisfaction over time. Anxious women who perceived less spousal support also reported seeking less support from their husbands between the prenatal and the postnatal periods. In addition, the husbands of women who perceived less spousal support differed from other husbands. These men reported significant declines over time in both their marital satisfaction and the amount of support they reported giving to their wives. Similar to women, changes in men's marital satisfaction were also fully mediated by changes in their wives' perceptions of spousal support across the 6-month transition period.

Viewed together, these findings indicate that perceptions of low or declining spousal support by anxiously attached women have broad impact on their marriages. Consistent with our diathesis–stress model (see Fig. 6.1), anxious women are not invariably unhappy with their marriages. When they perceive higher levels of prenatal and postnatal spousal support, anxious wives and their husbands both have higher marital satisfaction that is on par with securely attached spouses.

In our second transition study, we (Kohn et al., 2011) focused on changes in marital satisfaction over the first 2 years of the transition to parenthood. This study also addressed partner perceptions and their ties to personal well-being (see Fig. 6.1). The findings of Kohn et al. (2011) were similar in many ways to those of Rholes et al. (2001). For instance, Kohn et al. found that anxiously attached women and men who perceived less spousal support were less satisfied with their marriages compared to less

[5] Fear of "abandonment" refers to a set of fears that include not only sudden abandonment but also emotional withdrawal by one's partner, declines in affection or love, and/or the prospect of relationship dissolution.

anxiously attached people. Anxious women who perceived lower levels of spousal support started the transition to parenthood with lower levels of satisfaction, which remained consistently low throughout the 2-year study. Anxious men who perceived less partner support also started the transition with lower satisfaction, but they experienced further declines in satisfaction across the 2-year period, leaving them even more dissatisfied than their wives, on average, 2 years after childbirth. These findings reveal that relationship problems that occur during the transition do not flair up and settle down quickly. Rather, many of them begin during the very early stages of the transition and exert long-term effects on marriages, especially among anxiously attached persons.

Besides perceiving deficient spousal support, anxiously attached men and women who perceived that their partners behaved more negatively toward them (by being angry, sarcastic, or irritated with them) also reported lower marital satisfaction than others in the sample. For example, among women who perceived that they were the targets of more negative behavior from their partners, marital satisfaction started low and remained low across the 2-year transition. Anxious men who perceived greater partner negativity showed consistent declines in satisfaction across the 2-year period so that, by the end of the study, they were more dissatisfied than their wives. According to attachment theory (Bowlby, 1973, 1988), lower levels of perceived partner support and more negative partner behavior should both accentuate fears of being abandoned, which should fuel marital dissatisfaction, especially in highly anxious people. The declining satisfaction of highly anxious men indicates that the transition to parenthood may have been increasingly stressful for them across time. Consistent with this conjecture, Kohn et al. (2011) also found that women who were married to highly anxious husbands (regardless of women's own attachment orientations) reported behaving in an increasing negative manner (e.g., with anger, irritation) toward their spouses across the transition. Although we do not know the precise cause this behavior, one possibility is that anxious men may have engaged in more excessive reassurance seeking as the transition unfolded (Shaver, Schachner, & Mikulincer, 2005).

Kohn et al. (2011) also found that avoidance plays an important role in marital satisfaction during the transition to parenthood. The effects of avoidance, however, were moderated by a different set of variables, the first of which was perceptions that the new baby was interfering with outside activities such as leisure pursuits, free-time, etc. Specifically, more avoidant men and women who anticipated greater baby interference prenatally reported less marital satisfaction prior to childbirth, and those who perceived greater baby interference postnatally experienced declines in satisfaction over time, especially in the case of highly avoidant men. Work–family conflict was also a significant moderator. Highly avoidant men and women who perceived greater work–family conflict started the

transition with lower satisfaction, and avoidant men experienced continued declines in satisfaction across time. Finally, the demands associated with family responsibilities also moderated this effect, such that avoidant men and women who perceived heavier demands began the transition with lower satisfaction, and avoidant men experienced continued declines over time.

Some of the most dissatisfied people in the Kohn et al. (2011) study were highly avoidant people, especially men, who perceived that their baby was interfering with their other life activities, creating too many family responsibilities, and generating work–family conflicts. These findings suggest that many avoidant parents may resent childcare responsibilities. Bowlby (1988), in fact, claimed that one of the gravest fears of avoidant people is that they will have to become caregivers at some point during their lives. Whereas anxious individuals worry about abandonment, avoidant individuals are concerned with losing autonomy and becoming too interdependent with others. For this reason, avoidant people become dissatisfied with their marriages when they perceive that their children are interfering with other outside activities, when they encounter work–family conflict, or when they perceive heavy demands from their family life because all of these factors can undermine autonomy and independence.

The second measure of well-being examined in our transition to parenthood studies was depressive symptomotology. With regard to the model in Fig. 6.1, two of our depressive symptoms studies have focused on partner behaviors, perceptions of partners, and how both of these variables predict changes in depressive symptoms across the transition. The results we have found for depressive symptoms conceptually parallel those we have found for marital satisfaction. Simpson, Rholes, Campbell, Tran, et al. (2003), for example, found that anxiously attached women who perceived less spousal support or more negative social interactions with their spouses during the prenatal period experienced increases in depressive symptoms across the first 6 months of the transition. The increase in depressive symptoms over time was fully mediated by women's perceptions of declining spousal support across the 6-month transition period. Specifically, anxious women were more likely to perceive declining support from their husbands over the first 6 months of the transition, and these negative support perceptions forecasted increases in their depressive symptoms. Thus, as with marital satisfaction, perceptions of low prenatal spousal support and declining spousal support from the prenatal to the 6-month postnatal period assume a major role in predicting changes in depressive symptoms in anxiously attached women.

Simpson, Rholes, Campbell, Tran, et al. (2003) also sought to determine whether anxiously attached women held biased perceptions of the spousal support that was potentially available to them. To test this hypothesis, women's perceptions of available spousal support were regressed on their partner's perceptions of the support that they gave them. Residual scores were then calculated to assess the difference between the amount of support

women perceived relative to the amount that would be expected based on their male partner's reports of support giving, controlling for his attachment orientation. These residual scores were then correlated with women's attachment anxiety scores. The results revealed that: (1) more anxious women perceived less support than would be expected based on their husband's reports of support-given, and (2) less anxious (more secure) women perceived more support than would be expected based on their husband's reports. Viewed together, these findings suggest that highly anxious women may have a negative support perceptual bias, whereas less anxious (more secure) women might have a positive support perceptual bias.[6]

Men's reports of support giving were also examined in relation to their wive's attachment anxiety to determine whether men who were involved with more anxious partners provided less support. There was no association between men's support giving and women's attachment anxiety at the prenatal period. Six months after childbirth, however, there was a significant association, such that men—regardless of their own attachment orientation—reported providing less support if they had more anxious wives. Thus, highly anxious women's perceptions of low/declining spousal support appear to have a partial basis in reality.

The final question addressed in the Simpson, Rholes, Campbell, Tran, et al. (2003) study dealt with why men withdraw support from anxious women. At 6 months postpartum, men completed a questionnaire about dispositional attributions for their wive's behavior during the transition period. Men rated their wives on four dispositions: mature versus immature, emotionally strong versus emotionally weak, self-reliant versus excessively needy, and stable versus unstable. Men involved with more anxiously attached partners attributed more negative dispositions to their partners, and their more negative attributions fully mediated the link between women's attachment anxiety and men's reports of support giving at 6 months postpartum. Thus, men who have highly anxious spouses tend to pull away from them during the transition, causing these men to reduce their levels of support. One reason for their alienation may be excessive reassurance seeking on the part of highly anxious women (Shaver et al., 2005).

Rholes et al. (2011) also investigated changes in depressive symptoms across the first 2 years of the transition to parenthood. The results for attachment anxiety were very consistent with the Simpson, Rholes, Campbell, Tran, et al. (2003) depression findings. For example, Rholes et al. (2011) found that highly anxious women who perceived lower spousal support reported more depressive symptoms, which remained constant over

[6] This conclusion rests on the assumption that men were not overly biased their perceptions of the support they gave to their partners during the transition.

2 years. Anxious men who perceived less spousal support started the transition with fewer depressive symptoms than their female partners, but they increased in symptom levels across the 2 years of the study and eventually had symptom levels that were as high as their female partners. Anxious men and women who perceived their partners were interacting more negatively with them (e.g., by being disrespectful, rude, irritated, angry) had depressive symptom outcomes that were almost identical to anxious individuals who perceived lower spousal support. These findings are noteworthy because they replicate our 2003 depression study and they also show that depressive symptoms that arise during the transition continue to be problematic for an extended period of time. As discussed earlier, both lower perceived spousal support and greater negative social exchanges with partners should exacerbate abandonment concerns. Highly anxious individuals often ruminate about negative events and negative potential outcomes much more than less anxious (more secure) people do (Burnette, Davis, Green, Worthington, & Bradfield, 2009). The well-established link between rumination and depression (Rood, Roelofs, Bogels, Nolen-Hoeksema, & Schouten, 2009) suggests that greater rumination about abandonment may play a primary role in generating depressive symptoms in highly anxious people.

The Rholes et al. (2011) findings for avoidance and depressive symptoms focused on perceptions that the new baby was interfering with the romantic relationship (e.g., not having enough alone-time with one's spouse) and/or outside personal activities (e.g., recreation). Avoidant people who harbored these views started the transition having more depressive symptoms, which increased across the 2 years of the study. Interference with the relationship may seem surprising because avoidant people claim that they do not want, need, or value close relationships. This finding, however, clearly indicates that some aspects of romantic relationships are important even to highly avoidant individuals.

To summarize, the four transition to parenthood studies reviewed above reveal findings that are consistent with both attachment theory and our process model. The results concerning the predictors of marital satisfaction were very consistent across the two marital satisfaction transition studies, and those regarding the predictors of depressive symptoms were also consistent across the two depression transition studies. Moreover, the predictors of marital satisfaction and depressive symptoms were also conceptually consistent with one another. The core findings indicate that certain circumstances arising during the transition to parenthood tend to activate and/or exacerbate the cardinal concerns of highly anxious and highly avoidant people—abandonment for anxious persons, and lack of autonomy and independence for avoidant persons—which have negative effects on marital satisfaction and depressive symptoms across the transition to parenthood. The findings are consistent with our diathesis-stress model by showing that the principle vulnerabilities of avoidant and anxious persons emerge only

when these individuals confront certain difficult circumstances or events. In the absence of such circumstances or events, highly avoidant and highly anxious persons appear to be just as well adjusted as their less avoidant and less anxious (more secure) counterparts.

We now turn to the final measure of well-being in our transition to parenthood work, namely changes in levels of attachment avoidance and anxiety over time. The goal of this study (Simpson, Rholes, Campbell, & Wilson, 2003) was to determine whether certain events during the transition to parenthood increase or decrease levels of avoidance and anxiety. With regard to the model in Fig. 6.1, Simpson, Rholes, Campbell, and Wilson (2003) tested the effects of partner perceptions and attachment-related behavior on changes in chronic attachment orientations.

The transition to parenthood is an excellent context for studying potential changes in attachment orientations. According to Bowlby (1980), individuals are likely to experience such changes if they encounter events that reinforce or contradict the central assumptions of their working models. During chronically stressful periods, changes in attachment orientations should be more common because working models are both more accessible and more open to assimilating new attachment-relevant information and experiences (Bowlby, 1988). The transition is also a time when individuals have radically new interpersonal experiences (e.g., caring for and trying to soothe a newborn) that may alter their interpersonal expectations and underlying working models.

Consistent with this hypothesis, Simpson, Rholes, Campbell, and Wilson (2003) found that, regardless of their initial attachment orientations, women who perceived their partners as less supportive or as interacting more negatively toward them at the beginning of the transition became more anxiously attached across time. Deficient partner support and/or greater partner negativity ought to heighten concerns about abandonment, reinforcing a fundamental component of anxious working models. Simpson, Rholes, Campbell, and Wilson (2003) also found that changes in women's avoidance were associated with their husband's attachment orientation. Specifically, women who had more avoidant husbands became more avoidant across the transition. Previous research has confirmed that avoidant men behave less supportively, especially when their partners are upset (e.g., Simpson et al., 1992). To the extent that avoidant men persistently reject bids for comfort and support from their romantic partners during the transition, these actions should strengthen a central component of avoidant working models—that support and care will not be forthcoming when one is distressed.

Simpson, Rholes, Campbell, and Wilson (2003) also found that men's and women's level of avoidance changed as a function of their own behavior during the transition. For example, men became less avoidant if they perceived they had given more support to their partners, and women

became less avoidant if they perceived they had sought more support from their partners. The seeking and giving of support are both starkly inconsistent with the working models and typical behavior of avoidant persons. When the parental role strongly elicits and sustains these behaviors, the sheer inconsistency between them and avoidant working models ought to produce changes in the cognitions underlying avoidance (cf. Festinger, 1957).

4.3.2. Culture-fit studies

Attachment orientations may also generate behaviors that may be incongruent with a given culture's prescriptive norms about how to think, feel, and behave in relationships. As a result, certain attachment orientations may "fit better" in some cultures than others, a concept we have termed the "cultural fit" hypothesis. When an individual's interpersonal style of relating to others (i.e., his/her attachment orientation) goes against the grain of what a culture deems appropriate or desirable, she or he should experience chronic stress.

Friedman et al. (2010) tested whether avoidance fits better (or has fewer negative relationship consequences) in individualistic cultures (such as the United States) than in interdependent cultures (such as Hong Kong and Mexico). Friedman et al. (2010) hypothesized that avoidance, with its emphasis on emotional distance and autonomy, should be a stronger predictor of relationship problems in Hong Kong and Mexico than in the United States, considering the greater importance of closeness and interpersonal harmony in more interdependent cultures. As expected, avoidance was associated with greater relationship problems in all three cultures, but the associations were significantly stronger in Hong Kong and Mexico than in the United States. Compared to the United States, avoidance was more strongly associated with greater conflict with romantic partners, less perceived partner support, less investment in the relationship, and lower relationship satisfaction in Hong Kong. Also compared to the United States, greater avoidance was more strongly linked to lower relationship satisfaction, less perceived partner support, and more relationship conflict in Mexico.

Within interdependent cultures, the romantic partners of avoidant people may find that their expectations of what constitutes a "good" relationship are less completely met than are the expectations of partners who live in more independent cultures such as the United States. This should create disappointment and frustration, exacerbating the relationship problems of highly avoidant individuals. Another contributing factor may be pressures from either romantic partners or others (e.g., family members, friends) that impel avoidant individuals to engage in behaviors they find uncomfortable and would prefer not to do. Interdependent cultures may, for instance, exert

pressure on avoidant people to engage in levels of self-disclosure they find disconcerting or to perform levels of caregiving they find stifling (Wilson, Simpson, & Rholes, 2000). Living in a culture that makes it difficult to avoid behaviors that activate the attachment system should generate considerable stress and resentment in avoidant people, only aggravating their relationship problems.

Mak, Bond, Simpson, and Rholes (2010) tested whether relationship satisfaction mediated the link between attachment insecurity and depressive symptoms in the United States and Hong Kong. Mak et al. (2010) predicted that attachment insecurity should be related to perceptions of less support from romantic partners, and that these perceptions should in turn be associated with lower relationship satisfaction enroute to predicting more depressive symptoms. Consistent with the cultural fit hypothesis, avoidance was more strongly associated with perceptions of less partner support and greater relationship dissatisfaction in Hong Kong than in the United States. The partners of avoidant persons in Hong Kong should be particularly upset by their partners' normatively low levels of support and, therefore, may withdraw from the partner/relationship, generating these clear cultural differences. In addition to withdrawing support, the partners of avoidant persons may also display their dissatisfaction in other ways by being more critical or rebuking when their avoidant partners violate cultural practices and norms for intimate relationships.

5. Conclusions and Future Directions

Viewed in their entirety, our programs of research have documented that certain types of stressful situations have powerful and unique effects on people who possess different adult attachment orientations. Our work has examined the way in which relationship partners think, feel, and especially *behave* in a variety of interpersonal situations, ranging from lab-based conflict and support interactions, to lab-based relationship-threatening discussions, to major life transitions, to everyday life stressors. Across these different social contexts, avoidant people are not always unsupportive, withdrawn, or uncooperative with their romantic partners; rather, the cardinal features of avoidance are elicited by certain types of stressful situations, such as feeling pressure to give or receive support, to become more intimate, or to share deep emotions. Likewise, anxious people are not always clingy, demanding, or prone to engaging in dysfunctional conflict resolution tactics; instead, the quintessential features of anxiety are evoked by certain types of stressful situations, especially those that threaten the stability or quality of their relationships. Both avoidant and anxious people

are less likely to "act" on their attachment insecurities when they are involved in closer relationships or have more committed partners. Secure people are not always supportive, nondepressed, or inclined to display good and cooperative conflict resolution tactics; the defining features of security are witnessed in stressful situations that activate their positive working models and benevolent interpersonal motivations.

As we have shown, anxiously attached individuals have chronically activated working models, which accentuate their worries about rejection, loss, and abandonment and disrupt how they seek support, give support, and behave with their romantic partners, especially in relationship-threatening stressful situations. Avoidantly attached individuals often react to threats at below-conscious levels of awareness, but the activation of their attachment system does not always register consciously and, thus, does not motivate them to seek or provide support to their romantic partners in stressful attachment-relevant situations. Securely attached people, who score low on attachment anxiety and avoidance, directly seek and give support when they feel distressed, which enables them to build and maintain closer, better functioning relationships that help to enhance their well-being.

There are several novel and important directions in which future attachment research adopting a diathesis–stress perspective might head. In this final section, we discuss two particularly promising avenues.

One important agenda for future research should be to understand the processes that transform a new romantic partner into a bona fide attachment figure. An attachment figure is someone whose presence one seeks, whose absence is distressing, and—most importantly—whose physical or symbolical availability provides a sense of felt security (Bowlby, 1969). As reviewed earlier, Beckes et al. (2010) took an initial step toward understanding the formation of secure attachments. Participants in their experiment were shown pictures of neutral and fear-inducing stimulus scenes subliminally (i.e., below-conscious recognition). These subliminal pictures were repeatedly paired with photographs of supraliminally presented strangers whose faces expressed either a genuine (Duchene) smile or a neutral facial expression. Each face was paired with either a fear-arousing or a neutral scene across 20 conditioning trials. After the conditioning procedure, the faces were shown to participants immediately before each trial of a word recognition test. Four types of words were used: secure attachment-related words, insecure attachment-related words, positive nonattachment words, and negative nonattachment words. Beckes et al. (2010) hypothesized that smiling faces that had been paired with (conditioned to) threatening subliminal pictures (e.g., a striking snake) would acquire security-inducing properties and, thus, would increase the cognitive accessibility of secure attachment-related words in particular. This is exactly what they found.

These findings imply that a secure attachment is more likely to form if a person experiences *repeated instances* of support seeking during times of distress, which are consistently followed by effective efforts by a partner to relieve that distress. This process highlights a critical distinction between attachment security and relationship closeness. Relationship events that increase closeness but do *not* involve support resulting in relief from distress should not produce attachment bonds. For example, sexual intimacy or self-disclosure ought to encourage closeness, but they should not result in the development of attachment security unless they occur in a context in which one partner is distressed and the other partner repeatedly assuages that distress. Secure attachment, therefore, is different than closeness, and the two need not coincide. Events that generate secure attachment may also create closeness, but many events that produce closeness may have little if any effects on attachment bonds. Feeling close may, over time, encourage a person to seek or provide more support in a relationship. Thus, even though closeness might launch or facilitate the processes through which attachment bonds are eventually formed, closeness itself is not the direct causal agent.

The conceptual distinction between closeness and attachment security raises another important question about relationship satisfaction. Is satisfaction more strongly determined by closeness or by attachment security? We conjecture that both constructs affect relationship satisfaction, but that the strength of the connection between these two variables and relationship satisfaction is likely to vary depending on life circumstances. During chronically stressful times, for example, attachment security may have a stronger influence on relationship satisfaction. During less stressful times, however, it may exert a weaker impact.

Another implication of the Beckes et al. (2010) findings is that attachment security does not develop in the absence of stressful conditions, and it may develop more quickly in couples that must cope with major stressors *together* early in their relationships (cf. Simpson & Rholes, 1994). Stress alone, however, is not sufficient to generate attachment bonds and security. The process also requires high levels of partner support seeking followed by good partner support provision that reliably dispels distress. The likelihood of strong support seeking and effective support provision ought to depend on the attachment orientations of both relationship partners. As we have seen, Simpson et al. (1992) found that avoidant persons are less likely to seek support when they are distressed, and they also are less likely to provide it when their partner is distressed. In couples with one or more avoidant partners, attachment bonds may be slower to develop, and they may never reach a high level of strength or produce a sense of security. Anxious partners are more inclined to seek support when they are distressed, but they may not receive enough support—or may not *perceive* they have received enough support—to develop secure attachment bonds. As evident in our research on the transition to parenthood (e.g., Rholes et al., 2001;

Simpson, Rholes, Campbell, Tran, et al., 2003), the romantic partners of anxious persons are less likely to give them support, they are more likely to view anxious persons in negative and derogatory terms (e.g., as weak and needy), and they express more negative behavior (e.g., irritation, anger) toward them. Nevertheless, the right conditions can allow secure attachments to develop, even among highly avoidant and highly anxious people (cf. Simpson, Rholes, Campbell, & Wilson, 2003).

A final implication of the Beckes et al. (2010) findings is that attachment security exists on a continuum, with the degree of security being determined by the number of pairings between threat/distress and someone who provides a sense of relief from threat/distress. The strength of attachment bonds has rarely been studied directly in prior attachment research. Instead, most research has assessed adult attachment orientations, which are proxies of underlying working models. The results of Beckes et al. (2010) suggest that researchers should include measures of attachment strength in addition to attachment orientations in future studies.

Another future research agenda should focus on the integration of what we currently know about emotion regulation from an attachment perspective with mainstream theory and research on emotion regulation processes. Gross (1998a, 2001) has proposed an emotion regulation process model that outlines five discrete stages at which the experience of emotions can be controlled and managed. According to this model, individuals can regulate the experience of positive and negative emotions by (1) selecting specific situations to enter or to avoid, (2) influencing what happens (or does not happen) once in a situation, (3) using cognitive tactics to regulate the experience of emotions (e.g., distraction techniques), and (4) selectively interpreting the meaning or importance of a situation or event. These stages all involve reappraisal processes, which occur *before* a person has an emotional response. Once an emotion is experienced, individuals can (5) try to suppress/control its expression, which represents a response-focused emotional regulation strategy.

When people are exposed to negative or unpleasant stimuli in lab experiments, the use of reappraisal strategies reduces negative expressive behavior (such as facial reactions indicating anxiety or disgust) and buffers individuals from experiencing strong physiological arousal (Gross, 1998b). The use of suppression strategies also decreases expressive behavior, but it increases physiological reactivity. Suppression also impairs memory (Richards & Gross, 2000), predicts negative long-term health outcomes (English, John, & Gross, in press), and has negative physiological effects on individuals who habitually suppress negative emotions (Butler, Wilhelm, & Gross, 2006).

What transpires at each stage in Gross's emotion regulation model may illuminate precisely how secure, avoidant, and anxious people regulate emotions in stressful, attachment-relevant situations. Securely attached individuals should be especially good at using reappraisal strategies, not

only to avert or dampen the experience of negative emotions but also to increase the experience of positive ones (Mikulincer & Shaver, 2007c). Secure people may also be more adept at entering situations that generate positive emotional experiences and avoiding those that trigger negative affect. Once in a situation, secure people may be more skilled at steering conversations or activities toward positive outcomes and away from negative ones, and they might also be more inclined to direct their attention toward positive outcomes and away from negative ones. Evidence already indicates that secure people are better at reappraising the meaning of ambiguous or negative events involving their partners in a more benevolent light (see Mikulincer & Shaver, 2007c). To the extent that secure people consistently use these "antecedent" emotion regulation strategies more often or more effectively than insecure people, they should be less likely to need to use suppression strategies, which are associated with poorer long-term health outcomes. This may partially explain how and why secure individuals maintain better physical health outcomes from infancy into middle adulthood (Puig, Englund, Collins, & Simpson, 2011).

The emotion regulation stages and pathways are bound to be different for avoidantly and anxiously attached people, particularly when they encounter certain types of stressful situations. Many insecure people may not routinely use antecedent emotion regulation strategies that result in constructive reappraisal processes, such as avoiding situations that tend to elicit negative emotions or altering the structure of situations when they become difficult. Anxious and avoidant individuals, however, should diverge at the attention deployment stage. As discussed earlier, avoidant individuals use cognitive distraction techniques so they do not have to feel negative emotions (Fraley, Garner, & Shaver, 2000; Fraley & Shaver, 1997), even more so than secure individuals do. Anxious individuals find it difficult to use constructive cognitive reappraisal strategies (Collins, 1996), especially when they are already flooded with distress. Once a negative emotion is felt, avoidant individuals are more capable of suppressing it (Fraley, Garner, & Shaver, 2000), even if this comes at a physiological cost (e.g., Dozier & Kobak, 1992). And when stressors are chronic and intense, the defenses of avoidant people may breakdown, with the physiological toll of negative emotions being debilitating (e.g., Berant et al., 2001). Gaining a deeper and more nuanced understanding how emotion regulation versus dysregulation operates and "gets under the skin" to influence long-term health outcomes should be a major priority of future attachment research (Simpson & Rholes, 2010).

ACKNOWLEDGMENTS

We would like to thank the many talented graduate students with whom we have collaborated over the years on the studies described in this chapter.

REFERENCES

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

Baldwin, M. W. (1992). Relational schemas and the processing of social information. *Psychological Bulletin*, *112*, 461–484. DOI: 10.1037/0033-2909.112.3.461.

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

Beckes, L., Simpson, J. A., & Erickson, A. (2010). Of snakes and succor: Learning secure attachment associations with novel faces via negative stimulus pairings. *Psychological Science*, *21*, 721–728. DOI: 10.1177/0956797610368061.

Belsky, J., & Pensky, E. (1988). Marital change across the transition to parenthood. *Marriage and Family Review*, *12*, 133–156. DOI: 10.1300/J002v12n03_08.

Berant, E., Mikulincer, M., & Florian, V. (2001). Attachment style and mental health: A one-year follow-up study of mothers of infants with congenital heart disease. *Personality and Social Psychology Bulletin*, *27*, 956–968. DOI: 10.1177/0146167201278004.

Birnbaum, G. E., Weisberg, Y. J., & Simpson, J. A. (2011). Desire under attack: Attachment orientations and the effects of relationship threat on sexual motivations. *Journal of Social and Personal Relationships*, *28*, 448–468. DOI: 10.1177/0265407510381932.

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

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

Bowlby, J. (1979). *The making and breaking of affectional bonds*. London: Tavistock.

Bowlby, J. (1980). *Attachment and loss: Vol. 3. Loss*. New York: Basic Books.

Bowlby, J. (1988). *A secure base*. New York: Basic Books.

Brennan, K., Clark, C., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–76). New York: Guilford Press.

Burnette, J. L., Davis, D. E., Green, J. D., Worthington, E. L., & Bradfield, E. (2009). Insecure attachment and depressive symptoms: The mediating role of rumination, empathy, and forgiveness. *Personality and Individuals Differences*, *46*, 276–280. DOI: 10.1016/j.paid.2008.10.016.

Butler, E. A., Wilhelm, F. H., & Gross, J. J. (2006). Respiratory sinus arrhythmia, emotion, and emotion regulation during social interaction. *Psychophysiology*, *43*, 612–622. DOI: 10.1111/j.1469-8986.2006.00467.x.

Campbell, L., Simpson, J. A., Boldry, J., & Kashy, D. A. (2005). Perceptions of conflict and support in romantic relationships: The role of attachment anxiety. *Journal of Personality and Social Psychology*, *88*, 510–531. DOI: 10.1037/0022-3514.88.3.510.

Campbell, L., Simpson, J. A., Kashy, D. A., & Rholes, W. S. (2001). Attachment orientations, dependence, and behavior in a stressful situation: An application of the Actor-Partner Interdependence Model. *Journal of Social and Personal Relationships*, *18*, 821–843. DOI: 10.1177/0265407501186005.

Carnelley, K. B., Pietromonaco, P. R., & Jaffe, K. (1994). Depression, working models of others, and relationship functioning. *Journal of Personality and Social Psychology*, *66*, 127–140. DOI: 10.1037/0022-3514.66.1.127.

Cassidy, J., & Berlin, L. J. (1994). The insecure/ambivalent pattern of attachment: Theory and research. *Child Development*, *65*, 971–981.

Cassidy, J., & Kobak, R. R. (1988). Avoidance and its relationship with other defensive processes. In J. Belsky & T. Nezworski (Eds.), *Clinical implications of attachment* (pp. 300–323). Hillsdale, NJ: Erlbaum.

Collins, N. L. (1996). Working models of attachment: Implications for explanation, emotion, and behavior. *Journal of Personality and Social Psychology*, *71*, 810–832. DOI: 10.1037/0022-3514.71.4.810.

Collins, N. L., & Feeney, B. C. (2000). A safe haven: An attachment theory perspective on support seeking and caregiving in intimate relationships. *Journal of Personality and Social Psychology*, *78*, 1053–1073. DOI: 10.1037//0022-3514.78.6.1053.

Collins, N. L., Ford, M. B., Guichard, A. C., & Allard, L. (2006). Working models of attachment and attribution processes in intimate relationships. *Personality and Social Psychology Bulletin*, *32*, 201–219. DOI: 10.1177/0146167205280907.

Collins, N. L., Guichard, A. C., Ford, M. B., & Feeney, B. C. (2004). Working models of attachment: New developments and emerging themes. In W. S. Rholes & J. A. Simpson (Eds.), *Adult attachment: Theory, research, and clinical implications* (pp. 196–239). New York: Guilford.

Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, *58*, 644–663. DOI: 10.1037/0022-3514.58.4.644.

Collins, N. L., & Read, S. J. (1994). Cognitive representations of attachment: The structure and function of working models. In K. Bartholomew & D. Perlman (Eds.), *Attachment processes in adulthood* (pp. 53–90). London: Kingsley.

Cowan, C. P., & Cowan, P. A. (2000). *When partners become parents: The big life change in couples*. Mahwah, NJ: Erlbaum.

Crittenden, P. M., & Ainsworth, M. (1989). Child maltreatment and attachment theory. In D. Cicchetti & V. Carlson (Eds.), *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect* (pp. 432–463). Cambridge, England: Cambridge University Press.

Doss, B. D., Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2009). The effect of the transition to parenthood on relationship quality: An 8-year prospective study. *Journal of Personality and Social Psychology*, *96*, 201–619. DOI: 10.1037/a0013969.

Dozier, M., & Kobak, R. R. (1992). Psychophysiology in attachment interviews: Converging evidence for deactivating strategies. *Child Development*, *63*, 1473–1480.

Elder, G. H., & Clipp, E. C. (1988). Wartime losses and social bonding: Influences across 40 years in men's lives. *Psychiatry*, *51*, 177–198.

English, T., John, O. P., & Gross, J. J. (in press). Emotion regulation in close relationships. In J. A. Simpson, & L. Campbell (Eds.), *The Oxford handbook of close relationships*. New York: Oxford University Press.

Feeney, B. C. (2004). A secure base: Responsive support of goal strivings and exploration in adult intimate relationships. *Journal of Personality and Social Psychology*, *87*, 631–648. DOI: 10.1037/0022-3514.87.5.631.

Feeney, J. A. (2008). Adult romantic attachment: Developments in the study of couple relationships. In J. Cassidy & P. R. Shaver (Eds.), *The handbook of attachment: Theory, research, and clinical applications* (2nd ed., pp. 456–481). New York: Guilford Press.

Feeney, B. C., & Kirkpatrick, L. A. (1996). Effects of adult attachment and presence of romantic partners on physiological responses to stress. *Journal of Personality and Social Psychology*, *70*, 255–270. DOI: 10.1037/0022-3514.70.2.255.

Feeney, J. A., & Noller, P. (1990). Attachment style as a predictor of adult romantic relationships. *Journal of Personality and Social Psychology*, *58*, 281–291. DOI: 10.1037/0022-3514.58.2.281.

Feeney, J. A., Noller, P., & Callan, V. J. (1994). Attachment style, communication, and satisfaction in the early years of marriage. In K. Bartholomew & D. Perlman (Eds.), *Attachment processes in adulthood* (pp. 269–308). London: Kingsley.

Festinger, L. (1957). *A theory of cognitive dissonance*. New York: Row & Peterson.

Fraley, R. C., Davis, E. E., & Shaver, P. R. (1996). Dismissing avoidance and the defensive organization of emotion, cognition, and behavior. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 201–232). New York: Guilford.

Fraley, R. C., Garner, J. P., & Shaver, P. R. (2000). Adult attachment and the defensive regulation of attention and memory: Examining the role of preemptive and postemptive defensive processes. *Journal of Personality and Social Psychology*, *79*, 816–826. DOI: 10.1037/0022-3514.79.5.816.

Fraley, R. C., & Shaver, P. R. (1997). Adult attachment and the suppression of unwanted thoughts. *Journal of Personality and Social Psychology*, *73*, 1080–1091. DOI: 10.1037/0022-3514.73.5.1080.

Fraley, R. C., & Shaver, P. R. (1998). Airport separations: A naturalistic study of adult attachment dynamics in separating couples. *Journal of Personality and Social Psychology*, *75*, 1198–1212. DOI: 10.1037/0022-3514.75.5.1198.

Fraley, R. C., Waller, N. G., & Brennan, K. A. (2000). An item response theory analysis of self-report measures of adult attachment. *Journal of Personality and Social Psychology*, *78*, 350–365. DOI: 10.1037/0022-3514.78.2.350.

Friedman, M., Rholes, W. S., Simpson, J. A., Bond, M. H., Diaz-Loving, R., & Chan, C. (2010). Attachment avoidance and the cultural fit hypothesis: A cross-cultural investigation. *Personal Relationships*, *17*, 107–126. DOI: 10.1111/j.1475-6811.2010.01256.x.

Gaines, S. O., Reis, H. T., Summers, S., Rusbult, C. E., Cox, C. L., Wexler, M. O., et al. (1997). Impact of attachment style on reactions to accommodative dilemmas in close relationships. *Personal Relationships*, *4*, 93–113. DOI: 10.1111/j.1475-6811.1997.tb00133.x.

Gallo, L. C., & Smith, T. W. (2001). Attachment style in marriage: Adjustment and responses to interaction. *Journal of Social and Personal Relationships*, *18*, 263–289. DOI: 10.1177/0265407501182006.

Garmezy, N., Masten, A. S., & Tellegen, A. (1984). The study of stress and competence of children: A building block for developmental psychopathology. *Child Development*, *55*, 97–111.

Gottman, J. M. (1979). *Marital interaction: Experimental investigations*. New York: Academic Press.

Griffin, D., & Bartholomew, K. (1994). Models of the self and other: Fundamental dimensions underlying measures of adult attachment. *Journal of Personality and Social Psychology*, *67*, 430–445. DOI: 10.1037/0022-3514.67.3.430.

Gross, J. J. (1998a). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, *2*, 271–299. DOI: 10.1037/1089-2680.2.3.271.

Gross, J. J. (1998b). Antecedent- and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. *Journal of Personality and Social Psychology*, *74*, 224–237. DOI: 10.1037/0022-3514.74.1.224.

Gross, J. J. (2001). Emotion regulation in adulthood: Timing is everything. *Current Directions in Psychological Science*, *10*, 214–219. DOI: 10.1111/1467-8721.00152.

Hammen, C. (2000). Interpersonal factors in an emerging developmental model of depression. In S. L. Johnson & A. M. Hayes, et al. (Eds.), *Stress, coping, and depression* (pp. 71–88). Mahwah, NJ: Erlbaum.

Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, *52*, 511–524. DOI: 10.1037/0022-3514.52.3.511.

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

Kirkpatrick, L. A., & Davis, K. E. (1994). Attachment style, gender, and relationship stability: A longitudinal analysis. *Journal of Personality and Social Psychology*, *66*, 502–512. DOI: 10.1037/0022-3514.66.3.502.

Kobak, R. R., & Duemmler, S. (1994). Attachment and conversation: Toward a discourse analysis of adolescent and adult security. In K. Bartholomew & D. Perlman (Eds.), *Attachment processes in adulthood* (pp. 121–149). London: Jessica Kingsley.

Kohn, J. L., Rholes, W. S., Simpson, J. A., Martin, A. M., Tran, S., & Wilson, C. L. (2011). *Changes in marital satisfaction across the transition to parenthood: The role of attachment orientations*. Unpublished manuscript, Texas A&M University, College Station, TX.

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.

Levy, M. B., & Davis, K. E. (1988). Lovestyles and attachment styles compared: Their relations to each other and to various relationship characteristics. *Journal of Social and Personal Relationships*, *5*, 439–471.

Mak, M. C. K., Bond, M. H., Simpson, J. A., & Rholes, W. S. (2010). Adult attachment, perceived support, and depressive symptoms in Chinese and American cultures. *Journal of Social and Clinical Psychology*, *29*, 144–165. DOI: 10.1521/jscp. 2010.29.2.144.

Masten, A. S., & O'Connor, M. J. (1989). Vulnerability, stress, and resilience in the early development of a high risk child. *Journal of the American Academy of Child and Adolescent Psychiatry*, *28*, 274–278. DOI: 10.1097/00004583-198903000-00021.

Mayseless, O., Danieli, R., & Sharabany, R. (1996). Adults' attachment patterns: Coping with separations. *Journal of Youth and Adolescence*, *25*, 667–690. DOI: 10.1007/BF01537360.

Mikulincer, M. (1998). Attachment working models and the sense of trust: An exploration of interaction goals and affect regulation. *Journal of Personality and Social Psychology*, *74*, 1209–1224. DOI: 10.1037/0022-3514.74.5.1209.

Mikulincer, M., Birnbaum, G., Woddis, D., & Nachmias, O. (2000). Stress and accessibility of proximity-related thoughts: Exploring the normative and intraindividual components of attachment theory. *Journal of Personality and Social Psychology*, *78*, 509–523. DOI: 10.1037/0022-3514.78.3.509.

Mikulincer, M., & Florian, V. (1997). Are emotional and instrumental supportive interactions beneficial in times of stress? The impact of attachment style. *Anxiety, Stress, and Coping*, *10*, 109–127.

Mikulincer, M., & Florian, V. (1998). The relationship between adult attachment styles and emotional and cognitive reactions to stressful events. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 143–165). New York: Guilford.

Mikulincer, M., & Florian, V. (2000). Exploring individual differences in reactions to mortality salience: Does attachment style regulation terror management mechanisms? *Journal of Personality and Social Psychology*, *79*, 260–273. DOI: 10.1037//0022-3514.79.2.260.

Mikulincer, M., Florian, V., & Tolmacz, R. (1990). Attachment styles and fear of personal death: A case study of affect regulation. *Journal of Personality and Social Psychology*, *58*, 273–280. DOI: 10.1037/0022-3514.58.2.273.

Mikulincer, M., Florian, V., & Weller, A. (1993). Attachment styles, coping strategies, and post-traumatic psychological distress: The impact of the Gulf War in Israel. *Journal of Personality and Social Psychology*, *64*, 817–826. DOI: 10.1037/0022-3514.64.5.817.

Mikulincer, M., Gillath, O., & Shaver, P. R. (2002). Activation of the attachment system in adulthood: Threat-related primes increase the accessibility of mental representations of attachment figures. *Journal of Personality and Social Psychology*, *83*, 881–895. DOI: 10.1037//0022-3514.83.4.881.

Mikulincer, M., & Shaver, P. R. (2003). The attachment behavioral system in adulthood: Activation, psychodynamics, and interpersonal processes. In M. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 35, pp. 53–152). New York: Academic Press.

Mikulincer, M., & Shaver, P. R. (2007a). *Attachment in adulthood: Structure, dynamics, and change*. New York: Guilford.

Mikulincer, M., & Shaver, P. R. (2007b). Attachment theory and research: Core concepts, basic principles, conceptual bridges. In A. W. Kruglanski & E. T. Higgins (Eds.), *Social psychology: Handbook of basic principles* (2nd ed., pp. 650–677). New York: Guilford.

Mikulincer, M., & Shaver, P. R. (2007c). Boosting attachment security to promote mental health, prosocial values, and inter-group tolerance. *Psychological Inquiry*, *18*, 139–156. DOI: 10.1080/10478400701512646.

Milgram, N. A. (Ed.), (1986). *Stress and coping in time of war: Generalizations from the Israeli experience*. New York: Brunner/Mazel.

Murray, S. L., Holmes, J. G., & Collins, N. L. (2006). Optimizing assurance: The risk regulation system in relationships. *Psychological Bulletin*, *132*, 641–666. DOI: 10.1037/0033-2909.132.5.641.

Pereg, D., & Mikulincer, M. (2004). Attachment style and the regulation of negative affect: Exploring individual differences in mood congruency effects on memory and judgment. *Personality and Social Psychology Bulletin*, *30*, 67–80. DOI: 10.1177/0146167203258852.

Pistole, M. C. (1989). Attachment in adult romantic relationships: Style of conflict resolution and relationship satisfaction. *Journal of Social and Personal Relationships*, *6*, 505–510.

Puig, J., Englund, M. M., Collins, W. A., & Simpson, J. A. (2011). *Predicting adult physical illness from infant attachment: A prospective longitudinal study*. Unpublished manuscript, University of Minnesota, Minneapolis, MN.

Rholes, W. S., Simpson, J. A., Campbell, L., & Grich, J. (2001). Adult attachment and the transition to parenthood. *Journal of Personality and Social Psychology*, *81*, 421–435. DOI: 10.1037/0022-3514.81.3.421.

Rholes, W. S., Simpson, J. A., Kohn, J. L., Wilson, C. L., Martin, A. M., Tran, S., et al. (2011). Attachment orientations and depression: A longitudinal study of new parents. *Journal of Personality and Social Psychology*, *100*, 567–586. DOI: 10.1037/a0022802.

Rholes, W. S., Simpson, J. A., & Oriña, M. M. (1999). Attachment and anger in an anxiety-provoking situation. *Journal of Personality and Social Psychology*, *76*, 940–957. DOI: 10.1037/ 0022-3514.76.6.940.

Richards, J. M., & Gross, J. J. (2000). Emotion regulation and memory: The cognitive costs of keeping one's cool. *Journal of Personality and Social Psychology*, *79*, 410–424. DOI: 10.1037//0022-3514.79.3.410.

Rood, L., Roelofs, J., Bogels, S. M., Nolen-Hoeksema, S., & Schouten, D. (2009). The influence of emotion-focused rumination and distraction on depressive symptoms in non-clinical youth: A meta-analytic review. *Clinical Psychology Review*, *29*, 607–616. DOI: 10.1016/j.cpr.2009.07.001.

Salvatore, J. E., Kuo, S. I., Steele, R. D., Simpson, J. A., & Collins, W. A. (2011). Recovering from conflict in romantic relationships: A developmental perspective. *Psychological Science*, *22*, 376–383. DOI: 10.1177/0956797610397055.

Scharf, M. (2001). A "natural experiment" in childrearing ecologies and adolescents' attachment and separation representations. *Child Development*, *72*, 236–251.

Scharfe, E., & Bartholomew, K. (1995). Accommodation and attachment representations in young couples. *Journal of Social and Personal Relationships*, *12*, 389–401.

Shallcross, S., Howland, M., Bemis, J., Simpson, J. A., & Frazier, P. (2011). Not "capitalizing" on social capitalization interactions: The role of attachment insecurity. *Journal of Family Psychology*, *25*, 77–85. DOI: 10.1037/a0021876.

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

Shaver, P. R., Schachner, D. A., & Mikulincer, M. (2005). Attachment style, excessive reassurance seeking, relationship processes, and depression. *Personality and Social Psychology Bulletin*, *31*, 343–359. DOI: 10.1177/0146167204271709.

Simpson, J. A. (1990). Influence of attachment styles on romantic relationships. *Journal of Personality and Social Psychology*, *59*, 971–980. DOI: 10.1037/0022-3514.59.5.971.

Simpson, J. A., & Belsky, J. (2008). Attachment theory within a modern evolutionary framework. In J. Cassidy & P. R. Shaver (Eds.), *The handbook of attachment: Theory, research, and clinical applications* (2nd ed., pp. 131–157). New York: Guilford Press.

Simpson, J. A., Collins, W. A., Tran, S., & Haydon, K. C. (2007). Attachment and the experience and expression of emotions in adult romantic relationships: A developmental perspective. *Journal of Personality and Social Psychology*, *92*, 355–367. DOI: 10.1037/0022-3514.92.2.355.

Simpson, J. A., Ickes, W., & Grich, J. (1999). When accuracy hurts: Reactions of anxiously-attached dating partners to a relationship-threatening situation. *Journal of Personality and Social Psychology*, *76*, 754–769. DOI: 10.1037/0022-3514.76.5.754.

Simpson, J. A., Kim, J., Fillo, J., Ickes, W., Rholes, W. S., Oriña, M. M., et al. (2011). Attachment and the management of empathic accuracy in relationship-threatening situations. *Personality and Social Psychology Bulletin*, *37*, 242–254. DOI: 10.1177/0146167210394368.

Simpson, J. A., & Rholes, W. S. (1994). Stress and secure base relationships in adulthood. In K. Bartholomew & D. Perlman (Eds.), *Advances in personal relationships (vol. 5): Attachment processes in adulthood* (pp. 181–204). London: Kingsley.

Simpson, J. A., & Rholes, W. S. (2010). Attachment and relationships: Milestones and future directions. *Journal of Social and Personal Relationships*, *27*, 173–180. DOI: 10.1177/0265407509360909.

Simpson, J. A., Rholes, W. S., Campbell, L., Tran, S., & Wilson, C. L. (2003). Adult attachment, the transition to parenthood, and depressive symptoms. *Journal of Personality and Social Psychology*, *84*, 1172–1187. DOI: 10.1037/0022-3514.84.6.1172.

Simpson, J. A., Rholes, W. S., Campbell, L., & Wilson, C. L. (2003). Changes in attachment orientations across the transition to parenthood. *Journal of Experimental Social Psychology*, *39*, 317–331. DOI: 10.1016/S0022-1031(03)00030-1.

Simpson, J. A., Rholes, W. S., & Nelligan, J. S. (1992). Support-seeking and support-giving within couples in an anxiety-provoking situation: The role of attachment styles. *Journal of Personality and Social Psychology*, *62*, 434–446. DOI: 10.1037/0022-3514.62.3.434.

Simpson, J. S., Rholes, W. S., Oriña, M. M., & Grich, J. (2002). Working models of attachment, support giving, and support seeking in a stressful situation. *Personality and Social Psychology Bulletin*, *28*, 598–608. DOI: 10.1177/0146167202288004.

Simpson, J. A., Rholes, W. S., & Phillips, D. (1996). Conflict in close relationships: An attachment perspective. *Journal of Personality and Social Psychology*, *71*, 899–914. DOI: 10.1037/0022-3514.71.5.899.

Simpson, J. A., Rholes, W. S., & Winterheld, H. A. (2010). Attachment working models twist memories of relationship events. *Psychological Science*, *21*, 252–259. DOI: 10.1177/0956797609357175.

Simpson, J. A., Winterheld, H. A., Rholes, W. S., & Oriña, M. M. (2007). Working models of attachment and reactions to different forms of caregiving from romantic partners. *Journal of Personality and Social Psychology*, *93*, 466–477. DOI: 10.1037/0022-3514.93.3.466.

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

Taubman Ben-Ari, O., Findler, L., & Mikulincer, M. (2002). The effect of mortality salience on relationship strivings and beliefs: The moderating role of attachment style. *The British Journal of Social Psychology*, *41*, 419–441.

Tran, S., & Simpson, J. A. (2009). Pro-relationship maintenance behaviors: The joint roles of attachment and commitment. *Journal of Personality and Social Psychology*, *97*, 685–698. DOI: 10.1037/a0016418.

Vaughn, B., & Sroufe, L. A. (1979). Temporal relationship between infant heart-rate acceleration and crying in an aversive situation. *Child Development*, *50*, 565–567.

Wei, M., Vogel, D. L., Ku, T., & Zakalik, R. A. (2005). Adult attachment, affect regulation, negative mood, and interpersonal problems: The mediating roles of emotional reactivity and emotional cutoff. *Journal of Counseling Psychology*, *52*, 14–24. DOI: 10.1037/0022-0167-52.1.14.

Wilson, C. L., Simpson, J. A., & Rholes, W. S. (2000). *Attachment orientations and support-giving*. Paper presented at the annual meeting of the Midwestern Psychological Association, Chicago, IL.

Woolsey, L. K., & McBain, L. (1987). Women's networks: Strengthening the bonds of friendships between women. In K. Storrie (Ed.), *Women: Isolation and bonding* (pp. 59–76). Toronto: Methuen.