12

THE IMPACT OF EARLY INTERPERSONAL EXPERIENCE ON ADULT ROMANTIC RELATIONSHIP FUNCTIONING

JEFFRY A. SIMPSON, W. ANDREW COLLINS,
JESSICA E. SALVATORE, AND SOOYEON SUNG

Early social experiences have long been assumed to affect the later developmental trajectory of individuals, especially how they think, feel, and behave in subsequent close relationships. In fact, this premise is common to several major theorists, ranging from Freud (1940), to Erikson (1963), to Bowlby (1969, 1973). For the past several years, we have used data from the Minnesota Longitudinal Study of Risk and Adaptation to investigate how certain interpersonal experiences encountered very early in life (at age 1) systematically predict how people think, feel, and behave in their adult romantic relationships approximately 20 years later.

Our goal has been to identify and understand how and why early attachment experiences—some of which occurred before individuals could form episodic memories of these events—affect the ways in which the adult romantic relationships of these individuals function and the interpersonal pathways through which transmission patterns may have occurred. We have also examined the powerful role that romantic partners can and often do play in buffering certain people (e.g., those who were insecurely attached as children) from the vulnerabilities posed by their very early negative relationship histories.

Our studies have generated three core insights. First, early experiences associated with attachment security versus insecurity in relation to one's caregivers have small but apparently lasting effects on how people think, feel, and behave in their adult romantic relationships many years later. Second, there appear to be interpersonal pathways through which early life attachment experiences affect adult romantic relationship functioning. Third, certain kinds of romantic partners can buffer individuals who have early life vulnerabilities, such as insecure attachment histories, from experiencing negative relationship outcomes in adulthood.

We begin the chapter by describing the organizational perspective on social development that has guided much of our thinking and research to date. Following this, we discuss the unique longitudinal data set we have used to test a series of predictions concerning how attachment patterns very early in life (during the first 1–1.5 years) are systematically associated with other salient relationship experiences at different points in development, culminating in relationships with romantic partners approximately 20 years later. We then highlight the principal findings of two studies that examined how secure versus insecure attachment patterns very early in life presage (a) the ways in which individuals experience and express positive and negative emotions in their romantic relationships, especially during conflict discussions with their partners; and (b) how well individuals are able to "recover" emotionally from conflict discussions with their romantic partners, along with the critical role that partners assume in this process and in predicting the future stability of a relationship. Following this, we discuss a study that highlights the role of romantic relationships in prompting developmental change and consider how functioning outside of the family earlier in development may allow individuals to form secure and high-quality adult romantic relationships (or secure representations of a romantic partner), independent of early caregiving experiences. We conclude the chapter by discussing several of the advantages to the study of relationships of adopting an organizational perspective on social development, and we suggest some promising directions for future work.

AN ORGANIZATIONAL PERSPECTIVE
ON SOCIAL DEVELOPMENT

Our program of research has been guided by an organizational perspective on social development that is based on four principles (Salvatore, Collins, & Simpson, 2012; Sroufe, Egeland, Carlson, & Collins, 2005). First, the meaning of a given behavior depends on how it fits with other behaviors in a specific social context. For example, disengaging from conflict with a romantic partner when it is appropriate to do so is likely to protect people from the damaging effects of further conflict (Gottman, 1994), whereas failure to do so—especially when continued conflict is futile and issues cannot be resolved at the moment—may undermine future relationship functioning (see Gottman & Levenson, 1999).

Second, the ways in which individuals regulate their emotions in adult relationships should be associated with how they regulated their emotions with their caregivers earlier in life (Sroufe & Fleeson, 1986; Thompson, 2008; see also Chapter 15, this volume). Synchronous and supportive relationships with early caregivers are the first context in which good, functional emotion-regulation skills are learned (Sroufe et al., 2005; see also Chapter 7, this volume). Attachment security, which is an indicator of both well-calibrated interaction synchrony and effective emotion regulation in early childhood (Schore, 2005; see also Chapter 8, this volume), predicts better emotion-regulation skills at later points in life (Thompson, 2008).

Third, mental representations (working models) of self and others formed early in life guide interaction patterns in later relationships (Roisman, Collins, Sroufe, & Egeland, 2005; Sroufe & Fleeson, 1986). This is particularly true of long-term romantic partners, who often serve as attachment figures in most romantic relationships (Hazan & Zeifman, 1994; see also Chapter 15, this volume). Bowlby (1973) claimed that the quality of caregiving provided by early caregivers acts as a template for what can be expected in later relationships, which influences how people think, feel, and behave in their later relationships.

Fourth, experiences in early relationships (with parents) and in later relationships (with adult romantic partners) should jointly affect what happens at later points in development (Carlson, Sroufe, & Egeland, 2004; Sroufe, Egeland, & Kreutzer, 1990). For instance, positive relationship experiences encountered later in life (e.g., getting involved with a devoted, emotionally well-adjusted partner) can counteract and alter the negative working models stemming from negative relationship experiences earlier in life (e.g., experiencing less responsive or inconsistent parenting during childhood; see Ainsworth, 1989; Sroufe et al., 2005). In addition, romantic partners may be able to buffer "developmentally vulnerable" individuals, such as

those with insecure attachment histories, from experiencing poor outcomes in their romantic relationships (see Rönkä, Oravala, & Pulkkinen, 2002; Tran & Simpson, 2009).

THE MINNESOTA LONGITUDINAL STUDY OF RISK AND ADAPTATION

In our research, we have tested how early interpersonal experiences—especially those resulting in patterns of secure versus insecure attachment early in life—are systematically related to adult romantic relationship functioning. We have done this by following a sample of participants from birth into adulthood (Simpson, Collins, & Salvatore, 2011; Simpson, Collins, Tran, & Haydon, 2007). The sample comes from the Minnesota Longitudinal Study of Risk and Adaptation (Sroufe et al., 2005). In 1976–77, first-time mothers who were receiving free prenatal services at Minneapolis public health clinics were recruited for the study. The firstborn children of these mothers, whom we will refer to as *target* participants, became the primary focus of the study. From birth, targets ($N = 174$) have been assessed at regular intervals at each stage of development with multimethod measures (e.g., interviews, questionnaires, teacher and parent ratings, behavioral observations). Our research has focused on approximately 75 targets (and their romantic partners) who were involved in an established romantic relationship when they were 20–21 years old. The target participants in our romantic relationships subsample are demographically representative of the larger sample.

Assessments were conducted at several pivotal points when the targets were negotiating salient socioemotional developmental issues, such as forming attachments with early caregivers, navigating the peer environment in middle childhood, establishing close friendships in adolescence, and forming and maintaining romantic relationships in early adulthood. Competence in these domains was assessed with multiple methods. For children, assessments tapped how effective the parent–child dyad was in modulating the emotional arousal of the child during stressful situations. For example, when the targets were 12 and 18 months old, they were videotaped in the Strange Situation (Ainsworth, Blehar, Waters, & Wall, 1978), a stressful laboratory procedure that involves a series of separations and reunions with caregivers (in our case, each target's mother). Trained observers then viewed the videotapes and classified each target as having a secure or an insecure (anxious or avoidant) relationship with his or her caregiver (mother). In the Strange Situation, securely attached children use their caregivers as a source of comfort and base of security to lower their negative affect and regulate their emotions. This allows them to engage in other life tasks, such as exploring the environment.

Insecurely attached children in the Strange Situation do not use and act as if they cannot rely on their caregivers to dissipate negative affect and manage their negative emotions. As a result, their attachment systems remain activated, and they remain distressed throughout the Strange Situation procedure. There are two primary types of insecure children. Anxiously attached children express their distress and emotional dysregulation overtly by being inconsolable, whereas avoidantly attached children contain or suppress overt manifestations of their distress, yet remain physiologically aroused throughout the procedure (Sroufe & Waters, 1977).

When the targets were in elementary school (ages 6–8), they were rated by their classroom teachers with respect to how socially competent they were in organized classroom situations compared with their classmates. When the targets were age 16, they completed an hour-long interview during which they described the nature and quality of their relationship with their best friend, including how secure their relationship was and how conflicts were resolved with their best friend. When the targets were 20–21 years old, they and their romantic partners came to our laboratory and participated in a videotaped conflict resolution task, which was immediately followed by a conflict recovery task (see below). Each of these tasks assessed how well each target regulated her or his emotions with significant others at different points of social development in different types of stressful situations. When the targets were 23 years old, we assessed whether they were still dating the same romantic partner with whom they were videotaped at age 20 or 21. In addition, at age 23, targets who were in romantic relationships of 4 months or longer were interviewed about their relationship, including feelings of closeness, acceptance, approaches to conflict resolution, and commitment. Interviews were coded on a series of scales tapping the overall quality of the relationship.

Emotion Regulation During Conflict

In an initial study examining emotion regulation during romantic relationship conflict, Simpson et al. (2007) found that if targets had an insecure attachment relationship with their mothers at 12 months of age (assessed in the Strange Situation), they reported and behaviorally expressed more negative emotions when trying to resolve a major relationship conflict with their romantic partner at age 20–21. But this early attachment effect was mediated by targets' degree of social competence in elementary school (rated by their grade-school teachers) and the quality of their relationship with their best friend at age 16 (e.g., the extent to which targets felt they could share all personal feelings with their best friend, regardless of the content and how much they trusted and could count on their best friend). This partial mediation pattern, which fit the data better than several other possible models, is shown in
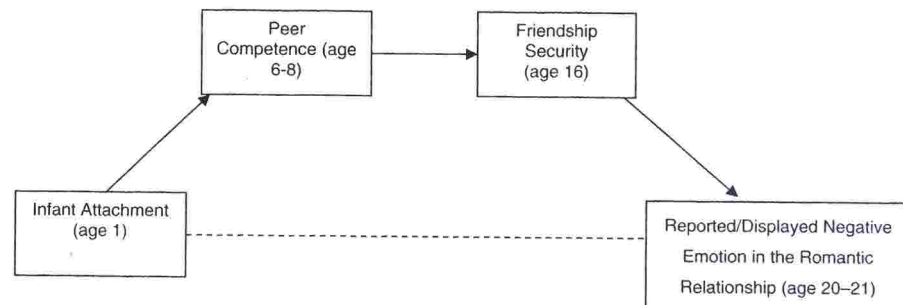
Figure 12.1. The best-fitting model showing the interpersonal pathway through which attachment security versus insecurity at age 1 is associated with greater reported and displayed negative emotions in adult romantic relationships at age 20–21. From "Attachment and the Experience and Expression of Emotions in Adult Romantic Relationships: A Developmental Perspective," by J. A. Simpson, W. A. Collins, S. Tran, and K. C. Haydon, 2007, *Journal of Personality and Social Psychology, 92,* p. 363. Copyright 2007 by the American Psychological Association.

Figure 12.1. These findings reflect one interpersonal pathway through which attachment security versus insecurity very early in life is probabilistically associated with the nature and quality of emotion regulation in adult romantic relationships approximately 20 years later.

Recovering From Conflict

In a second study, Salvatore, Kuo, Steele, Simpson, and Collins (2011) examined whether and how attachment patterns early in life are related to the way in which individuals recover from romantic relationship conflicts. *Conflict recovery* refers to how quickly, well, and completely individuals are able to shift, emotionally and behaviorally, from a negative interaction (e.g., discussing a major relationship problem) to achieving another important dyadic goal (e.g., discussing topics on which both partners agree). Recovering from conflict most likely involves a different set of skills and abilities than does resolving conflicts in a constructive and fair fashion (Gottman & Levenson, 1999; Salvatore et al., 2011). Targets who were securely attached early in life rebounded from conflicts with their romantic partners better at age 20–21, statistically controlling for how difficult the conflict discussion had been. Their romantic partners also recovered better if the targets had been securely attached earlier in life. Moreover, having a romantic partner who recovered better from conflict predicted higher self-reported relationship satisfaction as well as more positive relationship emotions. Finally, targets who had been insecurely attached early in life were significantly more likely to still be involved with the same romantic partners 2 years later (at age 23) if their partners had
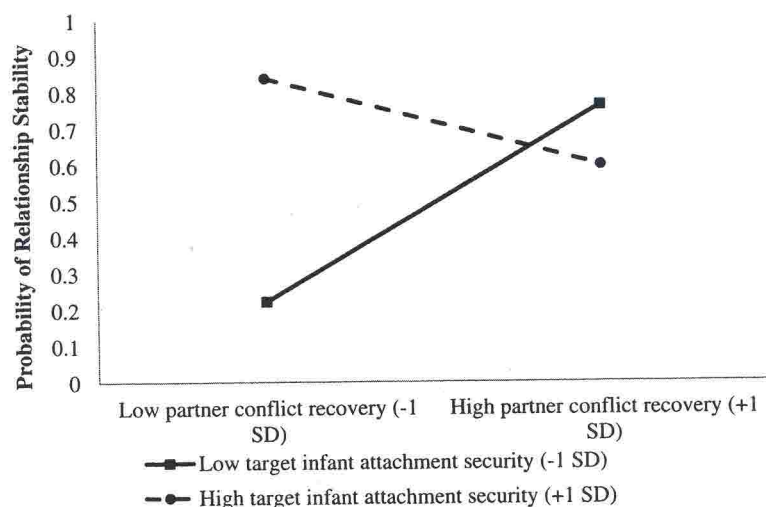
Figure 12.2. The probability of relationship stability over a 2-year period as a function of target participant infant attachment security and partner conflict reform. From "Recovering From Conflict in Romantic Relationships: A Developmental Perspective," by J. E. Salvatore, S. I. Kuo, R. D. Steele, J. A. Simpson, and W. A. Collins, 2011, *Psychological Science, 22,* p. 381. Copyright 2011 by the Authors. Adapted with permission.

displayed better conflict recovery 2 years earlier (at age 20–21; see Figure 12.2). Emotionally well-regulated romantic partners, therefore, appear to "protect" individuals with insecure attachment histories from romantic relationship difficulties in adulthood.

It is important to emphasize that in both of these studies all of the longitudinal effects described above remained statistically significant when assorted measures of current romantic relationship quality and functioning were statistically controlled. The effects reported above, therefore, are not attributable either to the targets' early temperament dispositions or to the quality of the targets' current romantic relationships.

Evidence for Change

As the findings reviewed above suggest, the early parent–child relationship sets the stage for later romantic functioning in important ways. However, those who experienced an insecure attachment are not necessarily doomed for a lifetime to dissatisfying or conflictual interpersonal relationships. A focal point in Bowlby's attachment theory is that later social relationships provide an important opportunity for change in working models of self and

others that should, in turn, be related to behavioral and emotional outcomes (Bowlby, 1988). Similarly, an organizational–developmental perspective asserts that individual adaptation is best understood as the combination of one's developmental history in conjunction with current life circumstances (Sroufe et al., 1990). That is, one's present circumstances can take on a different meaning in light of the past and vice versa.

We recently examined this with respect to anxious-depressed symptoms over a 9-year period in young adulthood (measured at ages 23, 26, and 32) as a function of early caregiving (measured at five times between ages 1 and 4) in combination with young adult romantic quality (measured at age 23). Low-quality early caregiving is a risk factor for internalizing symptoms in adulthood (Moffitt et al., 2007); likewise, low-quality or dissatisfying relationships are also associated with adult internalizing symptoms (Whisman, 2001). Consistent with the idea that later interpersonal experiences may alter the consequences of earlier interpersonal experiences, the objective in this study was to test whether the quality of young adult romantic relationship experiences moderated the effects of early caregiving experiences to predict anxious-depressed symptoms across this 9-year period (Salvatore, Haydon, Simpson, & Collins, in press).

The study found evidence for inoculation, amplification, and compensation effects. The anxious-depressed symptoms of those who experienced higher quality early caregiving did not vary much as a function of their young adult romantic relationship quality. This suggests that positive early caregiving experiences may have buffered (i.e., inoculated) these individuals against declines in mental health typically associated with a low-quality romantic relationship (Mikulincer & Florian, 1998; Mikulincer, Shaver, & Pereg, 2003). In contrast, the anxious-depressed symptoms of those who experienced lower quality early caregiving varied greatly as a function of their young adult romantic relationship quality. Those with lower quality early caregiving and a lower quality romantic relationship had the most symptoms (amplification), whereas those with lower quality early caregiving and a higher quality romantic relationship had the fewest symptoms (compensation).

How is it that some individuals are able to form secure and high-quality romantic relationships despite less than optimal early experiences with caregivers? Such findings suggest that romantic relationship functioning may have some developmental origins that are distinct from the parent–child relationship (see Sroufe et al., 2005). Recent findings from our longitudinal project, in which our group examined the shared and distinctive origins of adult participants' attachment representations of experiences both with early caregivers and with a specific romantic partner in early adulthood (Haydon, Collins, Salvatore, Simpson, & Roisman, 2012), provide further evidence for this principle. Representations of early caregiving experiences and the current romantic partner were measured with the Adult Attachment Interview (George, Kaplan,

& Main, 1985) and the Current Relationship Interview (Crowell & Owens, 1996), respectively. Classifications of secure/autonomous versus insecure/nonautonomous (dismissing or preoccupied) on each of these interviews were made based on the quality of each participant's discourse (rather than his or her description of early caregiving or romantic relationship experiences and events).

The results indicated that early parenting quality (measured at 24 months) predicted secure-autonomous classifications on both the Adult Attachment Interview and the Current Relationship Interview. However, preschool ego resiliency (a measure of attentional and affective flexibility; Block & Block, 1973) uniquely predicted secure classifications on the Current Relationship Interview. Thus, functioning outside the family of origin may be another pathway through which individuals with poor early caregiving experiences (or insecure representations of early caregiving experiences) can form and maintain high-quality romantic relationships (or secure representations of romantic partners, which should in turn predict better romantic functioning).

Summary of the Findings

From an organizational perspective on social development, these findings indicate that adult romantic relationship experiences are embedded in social processes that begin with early parental caregiving. Moreover, the quality of early caregiving is carried forward through subsequent relationship experiences and salient developmental periods, especially critical developmental transitions (see Collins & Sroufe, 1999; Sroufe, 1989). This carry-forward process is complex, and it probably involves the continuous interplay of internal working models and relationship experiences that occur in different developmental periods from infancy through early adulthood (Carlson et al., 2004).

THE ADVANTAGES OF AN ORGANIZATIONAL PERSPECTIVE ON SOCIAL DEVELOPMENT

Mental representations or "working models" of prior relationships are carried forward into new relationships. This can alter how current partners and relationships are viewed, depending in part on how individuals are being treated in their current relationships (Bowlby, 1973; Carlson et al., 2004). By adopting an organizational view on social development, one can generate unique predictions about an individual's future relationship functioning on the basis of knowledge of his or her past relationships as well as his or her current relationship status (Sroufe et al., 2005). For example, two different people can arrive at the same current relationship outcome (e.g., they can both report the same high level of satisfaction with their current relationship), but they have

arrived at this good place from very different starting points. One individual may have had a series of warm and supportive prior relationships starting very early in life and simply be continuing this pleasant trajectory with a current romantic partner. The other individual may have had a series of rocky, difficult, and rather unsupportive past relationships beginning early in life but have found a romantic partner who is very loving and compatible.

In addition, two individuals can arrive at different relationship outcomes from the same early starting point. Both individuals, for example, may have had a history of tumultuous, unsupportive prior relationships starting early in life, but one individual has a very loving, compatible, and emotionally well-regulated romantic partner with whom she or he is very happy, whereas the other individual has a more difficult, emotionally dysregulated romantic partner with whom she or he is unhappy.

Consider a concrete example. Both Sarah and Jennifer feel and display strong negative emotions when they interact with their current romantic partners. Sarah has a secure attachment history, but she recently discovered that her partner was cheating on her. Sarah and her partner are trying to repair the damage to their relationship in therapy, but the emotional strains of the betrayal continue to be reflected in Sarah's negative feelings and tense interactions with her partner. Jennifer also recently learned about her partner's infidelity, and she is also in therapy with her partner trying to mend the relationship. Jennifer, however, has an insecure attachment history and, therefore, is carrying considerable emotional baggage from her prior insecure, unsupportive relationships into her current romantic relationship.

Sarah's and Jennifer's relationships look fairly similar when viewed at a single time point. Each woman is having problems with her current romantic partner. A nondevelopmental perspective might anticipate that Sarah and Jennifer will have rather similar relationship trajectories and outcomes in the near future. But different predictions follow when Sarah's and Jennifer's current adaptation is considered in combination with the women's divergent developmental histories. If Sarah's therapy is successful and she is able to trust her partner once again, her relationship is likely to show better and more rapid improvement than Jennifer's relationship, based on Sarah's secure working models. Jennifer's relationship, in contrast, will probably show poorer and slower improvement than Sarah's even if therapy is helpful, given her insecure working models (see Johnson, 2008).

FUTURE DIRECTIONS AND CONCLUSIONS

There are several important directions for future research. For example, the field needs to learn more about how early social experiences accumulate during development to influence adult relationship outcomes, including

nonromantic ones. Little remains known about whether or how certain social experiences that occur at specific time points (e.g., during the first 5 years of life) are uniquely associated with specific types of adult relationship outcomes, such as how partners attempt to resolve relationship conflicts, how they support each other (or fail to do so), and how they share in each other's joys and happy life events. In addition, the field is just beginning to understand how current relationship variables such as satisfaction, commitment, and investments statistically interact with working models of relationships earlier in life to affect adult relationship experiences and outcomes, either within romantic relationships or in other relationship contexts (Salvatore et al., 2012). Finally, future research might determine whether and how specific gene by early environment interactions are associated with specific relationship outcomes in adulthood.

In conclusion, an organizational perspective on social development accentuates the relative coherence of social behavior in different relationships across development. The pattern of relationship-relevant thoughts, feelings, and actions—and especially their representation in working models—is what links early interpersonal experiences with caregivers to later interpersonal experiences with young peers, close friends, and eventually adult romantic partners. Although the behavioral characteristics of good versus poor emotion regulation look somewhat different at each developmental stage, their underlying functions and meaning tend to remain stable across time. Our program of research has documented that important adult romantic outcomes are, in fact, systematically tied to relationship experiences that occurred remarkably early in life, long before individuals formed and retained conscious memories. This link, however, also depends on what transpires in different types of relationships at intervening stages of social development, including relationships with romantic partners in early adulthood.

REFERENCES

Ainsworth, M. D. S. (1989). Attachments beyond infancy. *American Psychologist, 44,* 709–716. doi:10.1037/0003-066X.44.4.709

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.

Block, J., & Block, J. H. (1973). *Ego development and the provenance of thought: A longitudinal study of ego and cognitive development in young children.* Berkeley: University of California.

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

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

Bowlby, J. (1988). *A secure base: Parent–child attachment and healthy human development*. New York, NY: Basic Books.

Carlson, E. A., Sroufe, L. A., & Egeland, B. (2004). The construction of experience: A longitudinal study of representation and behavior. *Child Development, 75*, 66–83. doi:10.1111/j.1467-8624.2004.00654.x

Collins, W. A., & Sroufe, L. A. (1999). Capacity for intimate relationships: A developmental construction. In W. Furman, B. B. Brown, & C. Feiring (Eds.), *The development of romantic relationships in adolescence* (pp. 125–147). New York, NY: Cambridge University Press.

Crowell, J. A., & Owens, G. (1996). *Current Relationship Interview and scoring system*. Unpublished manuscript, State University of New York at Stony Brook.

Erikson, E. (1963). *Childhood and society*. New York, NY: Norton.

Freud, S. (1940). *An outline of psychoanalysis*. New York, NY: Hogarth Press.

George, C., Kaplan, N., & Main, M. (1985). *The Adult Attachment Interview*. Unpublished manuscript, University of California, Berkeley.

Gottman, J. M. (1994). *What predicts divorce? The relationship between marital processes and marital outcomes*. Hillsdale, NJ: Erlbaum.

Gottman, J. M., & Levenson, R. W. (1999). Rebound from marital conflict and divorce prediction. *Family Process, 38*, 287–292. doi:10.1111/j.1545-5300.1999.00287.x

Haydon, K. C., Collins, W. A., Salvatore, J. E., Simpson, J. A., & Roisman, G. I. (2012). Shared and distinctive origins and associations of adult attachment representations: The developmental organization of romantic functioning. *Child Development, 83*, 1689–1702. doi: 10.1111/j.1467-8624.2012.01801.x

Hazan, C., & Zeifman, D. (1994). Sex and the psychological tether. In K. Bartholomew & D. Perlman (Eds.), *Advances in personal relationships: Vol. 5. Attachment processes in adulthood* (pp. 151–178). London, England: Kingsley.

Johnson, S. M. (2008). Couple and family therapy: An attachment perspective. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (2nd ed., pp. 811–829). New York, NY: Guilford Press.

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, NY: Guilford Press.

Mikulincer, M., Shaver, P. R., & Pereg, D. (2003). Attachment theory and affect regulation: The dynamics, development, and cognitive consequences of attachment-related strategies. *Motivation and Emotion, 27*, 77–102. doi:10.1023/A:1024515519160

Moffitt, T. E., Caspi, A., Harrington, H., Milne, B. J., Melchior, M., Golderberg, D., & Poulton, R. (2007). Generalized anxiety disorder and depression: Childhood risk factors in a birth cohort followed to age 32. *Psychological Medicine, 37*, 441–452. doi:10.1017/S0033291706009640

Roisman, G. I., Collins, W. A., Sroufe, L. A., & Egeland, B. (2005). Predictors of young adults' representations of and behavior in their current romantic relationship: Prospective tests of the prototype hypothesis. *Attachment & Human Development, 7*, 105–121. doi:10.1080/14616730500134928

Rönkä, A., Oravala, S., & Pulkkinen, L. (2002). "I met this wife of mine and things got onto a better track": Turning points in risk development. *Journal of Adolescence, 25*, 47–63. doi:10.1006/jado.2001.0448

Salvatore, J. E., Collins, W. A., & Simpson, J. A. (2012). An organizational–developmental perspective on functioning in adult romantic relationships. In L. Campbell & T. J. Loving (Eds.), *Interdisciplinary research on close relationships: The case for integration* (pp. 155–177). Washington, DC: American Psychological Association. doi:10.1037/13486-007

Salvatore, J. E., Haydon, K. C., Simpson, J. A., & Collins, W. A. (in press). The distinctive role of romantic relationships in moderating the effects of early caregiving on adult anxious-depressed symptoms over nine years. *Development and Psychopathology*.

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

Schore, A. N. (2005). Back to basics: Attachment, affect regulation, and the developing right brain: Linking developmental neuroscience to pediatrics. *Pediatrics in Review, 26*, 204–217. doi:10.1542/pir.26-6-204

Simpson, J. A., Collins, W. A., & Salvatore, J. E. (2011). The impact of early interpersonal experience on adult romantic relationship functioning: Recent findings from the Minnesota Longitudinal Study of Risk and Adaptation. *Current Directions in Psychological Science, 20*, 355–359. doi:10.1177/0963721411418468

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

Sroufe, L. A. (1989). Relationships, self, and individual adaptation. In A. J. Sameroff & R. N. Emde (Eds.), *Relationship disturbances in early childhood: A developmental approach* (pp. 70–94). New York, NY: Basic Books.

Sroufe, L. A., Egeland, B., Carlson, E. A., & Collins, W. A. (2005). *The development of the person: The Minnesota Study of Risk and Adaptation from Birth to Adulthood*. New York, NY: Guilford Press.

Sroufe, L. A., Egeland, B., & Kreutzer, T. (1990). The fate of early experience following developmental change: Longitudinal approaches to individual adaptation in childhood. *Child Development, 61*, 1363–1373. doi:10.2307/1130748

Sroufe, L. A., & Fleeson, J. (1986). Attachment and the construction of relationships. In W. W. Hartup & Z. Rubin (Eds.), *Relationships and development* (pp. 51–71). Hillsdale, NJ: Erlbaum.

Sroufe, L. A., & Waters, E. (1977). Heart rate as a convergent measure in clinical and developmental research. *Merrill-Palmer Quarterly, 23*, 3–27.

Thompson, R. (2008). Early attachment and later development: Familiar questions, new answers. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (2nd ed., pp. 348–365). New York, NY: Guilford Press.

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

Whisman, M. A. (2001). The association between depression and marital dissatisfaction. In S. R. H. Beach (Ed.), *Marital and family processes in depression: A scientific foundation for clinical practice* (pp. 3–24). Washington, DC: American Psychological Association. doi:10.1037/10350-001

MECHANISMS OF
SOCIAL CONNECTION

From Brain to Group

Edited by Mario Mikulincer and Phillip R. Shaver

The opinions and statements published are the responsibility of the authors, and such opinions and statements do not necessarily represent the policies of the American Psychological Association.