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To cite this article: Tara E. Sutton (2019) Review of Attachment Theory: Familial Predictors, Continuity and Change, and Intrapersonal and Relational Outcomes, Marriage & Family Review, 55:1, 1-22, DOI: [10.1080/01494929.2018.1458001](https://doi.org/10.1080/01494929.2018.1458001)

To link to this article: <https://doi.org/10.1080/01494929.2018.1458001>



Published online: 27 Apr 2018.



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# Review of Attachment Theory: Familial Predictors, Continuity and Change, and Intrapersonal and Relational Outcomes

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## ABSTRACT

Initially, the major focus of attachment theory was the parent–child relationship, but Bowlby (1988) also described the attachment system as active over the entire life course. Accordingly, a proliferation of research on attachment theory in the past two decades has addressed an array of familial predictors as well as intrapersonal and relational outcomes of attachment. The purpose of this review is to present: 1) measurement of attachment, 2) family violence, parental depression, and parental divorce as predictors of attachment, 3) (in)stability of attachment over time, 4) impact of attachment on emotion regulation and psychopathology, and 5) influence of attachment on romantic relationship. Special attention is paid to the role of attachment as a mediator between family of origin experiences and outcomes among youth and adults.

## KEYWORDS

attachment; caregiving; child abuse or neglect; family of origin; parenthood/parenting; violence

Initially, the major focus of attachment theory was the parent–child relationship, but Bowlby (1988) also described the attachment system as active over the entire life course. According to Bowlby (1982/1969), securely attached children are comforted by an attachment figure’s closeness and distressed by separation (proximity seeking), use attachment figures for support in times of need (safe haven), and are able to freely explore the outside world with the expectation that an attachment figure will be available if needed (secure base). However, Bowlby realized that caregivers differ in their levels of availability and responsiveness (Bowlby, 1973), and children who interact with unresponsive and unavailable caregivers will become insecurely attached to their caregivers. Further, Bowlby described internal working models as the mechanism by which early attachment experiences influence individuals over the life course. Internal working models are mental representation of the self, significant others, and the self in relation to others that guide affect, cognitions, and behavior in intimate relationships (Bowlby, 1973). These internal working models play an important role in later romantic relationships as they are internalized throughout childhood and become the default way of

processing interactions with intimate partners, especially when under stress. Researchers have also applied attachment theory to other outcomes, such as affect regulation, psychopathology, memory, and attentional processes.

Over the years, attachment theory has proven to have broad appeal in both its theoretical and empirical veracities. This is perhaps the most important advantage of attachment theory over other similar perspectives and is related to the fact that it is parsimonious, easily testable, and widely applicable to not only family and romantic relationships but also a variety of other domains including mental health, emotion regulation, and personality, just to name a few. The usefulness of the theory is due, in part, to the incorporation of other important bodies of theoretical work into a unified perspective, such as social learning, socialization, social information processing, and developmental theories. Indeed, researchers have theorized and reviewed how attachment acts to organize several domains of child development (e.g., affect regulation, mental health, interpersonal relationships) through parent–child interactions (Sroufe, Carlson, Levy, & Egeland, 1999; Sroufe & Waters, 1977). Similarly, researchers have discussed the lasting influence of early attachment experiences and orientations on adulthood interpersonal interactions, including romantic relationship functioning, caregiving behavior, and conflict and communication skills (for example, Mikulincer & Shaver, 2012a). In empirical works, attachment is consistently related to a variety of familial experiences including parenting, changes in family structure, family conflict, marital satisfaction, conflict resolution skills, and even intimate partner violence, as will be discussed throughout this review. Thus, intervention efforts that incorporate attachment processes and focus on at-risk families and individuals in romantic relationships have the promise to lead to happier families and relationships and to happier lives more generally.

The purpose of the current review is to present the literature on familial precursors of attachment as well as intrapersonal and relational outcomes of attachment among youth and adults published in the past 20 years. Given the vast body of literature on attachment theory, this review is not meant to be exhaustive; rather, the goal of this review is to summarize established patterns of findings and growing areas of interest within the attachment literature. In the first section, I discuss the measurement of attachment in childhood and adulthood. Second, I summarize literature on familial predictors of attachment, particularly family violence, parental depression, and parental divorce. Third, I summarize literature on the continuity and change in attachment style over time. The next sections concern the impact of attachment on both intrapersonal outcomes (i.e., affect regulation, psychopathology) and romantic relationship functioning. In this discussion of outcomes of attachment, I pay special attention to the role of family of origin experiences in shaping attachment and, in turn, affect regulation, psychopathology, and intimate relationships. I conclude with a discussion of the implications of this body of work for relationship and marriage education.

## Measurement of attachment

Ainsworth, Blehar, Waters, and Wall (1978) developed the strange situation paradigm (SSP) to assess attachment between infants (age 12–18 months) and caregivers. They described three types of attachments based on observations of children's responses to separation from their caregiver. Secure infants successfully use parents as a secure base and are quickly comforted after separation from their mothers. Avoidant infants do not seek proximity with their mothers and ignore their mothers when being reunited. Last, resistant infants fail to explore their surroundings and display anger and ambivalence toward their mothers upon reunion. This paradigm is still the most widely used measurements of attachment between infants and their caregivers. However, in many studies, children are collapsed into secure and insecure groups.

The measurement of attachment in adulthood has seen much more growth in the past several decades. One of the most important advances in measurement was the development of adult attachment interview (AAI; Main, Kaplan, & Cassidy, 1985), a semistructured interview meant to assess an individual's current "state of mind" in terms of attachment. This is the most widely used instrument for the measurement of internal working models. Although the AAI was originally developed to assess parent–child attachment, it has been used in studies on the stability and change of attachment and on romantic relationships (Shaver, Belsky, & Brennan, 2000). In the AAI, individuals recount memories of early childhood experiences with attachment figures and are subsequently classified into one of three categories based on the coherency of their responses. Secure individuals value attachment relationships and are able to coherently recount childhood experiences. Dismissing adults devalue attachment relationships and lack memories of childhood experiences. Finally, preoccupied adults are overly concerned with past attachment experiences and speak about their childhood with anger (Bakermans-Kranenburg & Van Ijzendoorn, 1993). Studies show the AAI is reliable over time and across reporters and has discriminant and predictive validity (Bakermans-Kranenburg & Van Ijzendoorn, 1993; Ravitz, Maunder, Hunter, Sthankiya, & Lancee, 2010).

Many self-report instruments for measuring adult attachment in romantic relationships have also been developed. Self-report instruments generally differentiate between two dimensions of insecure attachment. Avoidant individuals resist intimacy and closeness while anxious individuals are clingy and emotional (Shaver et al., 2000). The most widely used instrument of this kind is the Revised Experiences in Close Relationships Scale (ECR-R; Fraley, Waller, & Brennan, 2000). Fraley and colleagues used item response analysis on the original scale (Brennan, Clark, & Shaver, 1998) to improve the precision of the instrument which was initially created by integrating hundreds of items from other adult attachment instruments. Thus, this scale

represents the integration of several researchers' work. The ECR-R has greater measurement precision than other commonly used self-report measures of attachment (Fraley et al., 2000), has high levels of reliability over time (Sibley, Fischer, & Liu, 2005), and has good construct validity (Fairchild & Finney, 2006). Indeed, the ECR-R is one of the most widely used instruments for measuring attachment in adulthood. Although the ECR-R measures attachment styles, these attachment styles do incorporate the concept of "working models of attachment." Specifically, the items in the ECR-R represent the way an individual perceives themselves, others, and relationships.

While the AAI and ECR-R are perhaps the most widely used instruments for measuring attachment, other instruments are used in the literature as well. Some of the other instruments are developed from the social psychological tradition and tap directly into internal working models. For example, the Relationship Questionnaire categorizes individuals as secure, fearful, preoccupied, or dismissing based on a combination of their working models of self and others (Bartholomew & Horowitz, 1991). Furthermore, Mikulincer and colleagues, among others, have used an experimental method to prime attachment security in adults in a series of studies (e.g., Mikulincer & Shaver, 2001; Mikulincer, Shaver, Gillath, & Nitzberg, 2005). Across these studies, this research shows that priming secure attachment is related to increased compassion, improved mood, relationship expectations, coping processes, reduced negative affect, physical pain, and distress symptoms (see Mikulincer & Shaver, 2015 for a review). Thus, there are a variety of instruments available for assessing attachment in both childhood and adulthood.

### **Family of origin predictors of attachment**

One of the most studied precursors to the development of insecure attachment is maltreatment and violence in the family of origin. Individuals who are abused by parents perceive these caregivers as unsupportive, unresponsive, rejecting, and angry, and one would expect to find individuals who are reared by abusive parents to have an insecure attachment style. In a recent meta-analysis of studies consisting of young children, researchers reported that children who had been maltreated had 80% greater odds of having an insecure attachment style compared to children who had not been abused (Baer & Martinez, 2006). Importantly, existing research supports that physical abuse (Unger & De Luca, 2014), emotional abuse (Riggs & Kaminski, 2010), sexual abuse (Brassard, Darveau, Peloquin, Lussier, & Shaver, 2014), and neglect (Schimmenti & Bifulco, 2015) in childhood are each related to the development of an insecure attachment style in either childhood or adulthood. For example, studies using adult populations demonstrate that college students who were emotionally maltreated in childhood are both significantly

more anxious and more avoidant than those who had not been abused (Limke, Showers, & Seigler-Hill, 2010; Riggs & Kaminski, 2010).

Unfortunately, different types of child abuse and neglect are seldom considered together in work on attachment theory. One recent study using retrospective report of abuse among college students attempted to disentangle the effects of abuse types on attachment. When including sexual abuse, emotional abuse, verbal abuse, and physical abuse as predictors of anxious and avoidant attachment styles, Oshri, Sutton, Clay-Warner, and Miller (2015) found that sexual abuse and emotional abuse were each related to both attachment styles while verbal abuse and physical abuse were unrelated to either attachment style. Similarly, Unger and De Luca (2014) found that controlling for other abuse types, physical abuse was related to an avoidant but not anxious attachment style in adulthood. Last, while there is currently a lack of work on exposure to domestic violence, the research that is available suggests that exposure to violence or conflict between caregivers in the family of origin is also detrimental to attachment (Godbout, Lussier, & Sabourin, 2006; Laurent, Kim, & Capaldi, 2008; Ross & Fuertes, 2010). Thus, future research in the area of family violence could focus on the differential association between several abuse types and the development of attachment and could explore factors that might link exposure to domestic violence between caregivers to childhood and adulthood attachment styles.

Parental depression is another risk factor for an insecure parent-child attachment as depression may interfere with a parent's ability to be responsive, emotionally available, or warm to a child. Specifically, research has shown that maternal depression confers risk for an insecure attachment among toddlers (Campbell et al., 2004), children (Huang, Lewin, Mitchell, & Zhang, 2012), and adolescents (Brenning, Soenens, Braet, & Bal, 2012). Existing work further supports that correlates of depression, such as insensitivity to others, may account for this relationship between parental depression and offspring attachment. In a recent study, using a nationally representative and racially diverse sample, children of depressed mothers were significantly more likely to be insecurely attached, and maternal sensitivity mediated this relationship (Huang et al., 2012). Similarly, Brenning et al. (2012) found that low maternal responsiveness linked maternal depression to adolescents' avoidant attachment and a lack of autonomy support linked maternal depression to attachment anxiety. In another study, a mothers' self-criticism during parent-child interactions mediated the relationship between a mother's depressive symptoms and her child's insecure attachment (Gravener et al., 2012). Thus, parents suffering from depression are at risk for being unresponsive, insensitive, and wary of their parenting abilities, putting their children at risk for developing an insecure attachment. Researchers have begun to test the influence of other parental mental health issues on attachment, such as anxiety (Stevenson-Hinde, Chicot, Shouldice, & Hinde,

2013), but there is still a need for more work on the influence of parental psychopathology (e.g., schizophrenia, substance dependence) on offspring attachment.

Security of attachment may also be threatened if a child perceives a parent to be unavailable, as may be the case with parental divorce. For example, children from divorced families are significantly more likely to be classified as insecurely attached than those from intact families, and this relationship is partially accounted for by less positive parenting in divorced families (Nair & Murray, 2005). Other studies using AAI or ECR-R have demonstrated that childhood experiences of parental divorce are predictive of less secure attachment in adulthood (Fraley & Heffernan, 2013b; Kilmann, Carranza, & Vendemia, 2006a; Riggs & Jacobvitz, 2002). Research has also shown that attachment may moderate the effect of parental divorce on an individual's own relationship stability in adulthood. In a sample of newlywed couples, Crowell, Trebouz, and Brockmey (2009) found that parental divorce status did not predict offspring divorce 6 years after marriage, but insecure attachment did. Specifically, attachment insecurity only predicted marital status among individuals with divorced parents, with those most at risk having both divorced parents and an insecure attachment. However, none of the individuals who had divorced parents but a secure attachment had divorced. Thus, research on divorce should incorporate attachment concepts more often, as it may be the combination of parental divorce in tandem with the development of an insecure attachment style that is most predictive of later outcomes.

A recent study (Fraley, Booth-LaForce, Roisman, Owen, & Holland, 2013a) following individuals from infancy into mid-adolescence supports the importance of these familial precursors of attachment using latent growth curve modeling. In this study, individuals were less likely to be avoidant if they experienced early or increasing maternal sensitivity but were more likely to be avoidantly attached in adolescence if they experienced initial or increasing maternal depression or if they did not consistently live with their fathers. Attachment anxiety was predicted by father absence, early maternal depression, and increases in maternal depression over time (Fraley et al, 2013a).

### **Stability and change in attachment**

Researchers have paid special attention to factors that predict the continuity and change of attachment from childhood to adulthood. Bowlby (1982/1988) contended that working models are initially formed in the parent-child relationship and become more stable over time. However, he also suggested that working models are open to change depending on life experiences. In line with this theorizing, recent meta-analyses incorporating both interview and self-report measures of attachment have found that attachment tends to be

relatively stable from infancy/childhood into adulthood. However, these studies also support that many individuals do experience changes over time and that stability of attachment may at least partly depend on level of risk exposure in childhood. For example, Pinquart, Feubner, and Ahnert (2013) found evidence of a moderate effect of early attachment on later attachment (.39) and estimated that about 58% of subjects were securely attached at each time point investigated. Further, results revealed that secure attachment is more likely to be stable over time than insecure attachment. Similarly, Fraley (2002) found a moderate influence (.39) of early prototypes of attachment on later attachment processes. Fraley (2002) also reported that the stability of attachment was more similar to a prototype than a revisionist model. In other words, he found evidence that representations of early experiences are maintained rather than revised based on new experiences. As recognized by Fraley (2002), it is unclear from this study whether an attachment prototype would have a consistent influence across types of attachment relationships and level of continuity may be low or high depending on the environment. Thus, more studies are needed in this area before we can conclude whether or not the prototype model of attachment is most appropriate.

Importantly, each of these meta-analyses supports that stability and change in attachment over time depend on the level of risk faced by the sample under study. For example, Fraley (2002) found that samples composed of individuals who were exposed to risk factors such as family instability or abuse evidenced less stability in attachment than other samples. Pinquart et al. (2013) also found that samples who had faced both biological and social risk experienced less stability in attachment compared to low-risk samples. Other studies support these claims. In community samples, researchers find that continuity of attachment is around 70% and that infant attachment significantly predicts adult attachment (Hamilton, 2000; Waters, Merrick, Trebouse, Corwell, & Albersheim, 2000). In these studies, most individuals are classified as secure across time. When high-risk samples (i.e., adopted, low income) are used, continuity is much lower, about 38–46%, and infant attachment does not tend to predict adult attachment (Beijersbergen, Juffer, Bakermans-Kranenburg, & Van Ijzendoorn, 2012; Weinfeld, Sroufe, & Egeland, 2000). Researchers have suggested that one possible explanation for these differences is less stability in environments and relationships for high-risk individuals (Weinfeld et al., 2000). Fortunately, most individuals in high-risk samples shift from insecure to secure attachment over time, indicating that this lack of continuity may be a sign of positive change over time in both environment and attachment. However, as discussed by Pinquart et al. (2013), this may depend on whether or not risk is biological or social. They found that children facing social risk (e.g., maltreatment, divorce, parental depression) had less stability in secure than insecure attachment while children facing biological risk (e.g., chronic illness, disability) had higher stability in secure attachment.



Other studies provide more detailed descriptions of what type of experiences may lead to the maintenance or instability of attachment over time. This research is consistent with the results summarized above. Across samples, studies show that negative life events act to maintain an insecure attachment over time. However, increases in negative experiences and stress or in positive experiences and interactions over time can lead to changes in attachment. For instance, in a sample of adopted individuals, high levels of maternal sensitivity throughout childhood and adolescence predicted stability of a secure attachment while increases in maternal sensitivity predicted an individual's change from insecure to secure attachment (Beijersbergen et al., 2012). Weinfeld et al. (2000) further demonstrated that maltreatment and maternal depression play different roles in the stability of attachment. Maltreatment acted to maintain an insecure attachment so that those who remained insecure were significantly more likely to have been maltreated than individuals who were insecure in infancy but secure in adulthood. On the other hand, maternal depression did not differ for individuals who were insecure in childhood regardless of their adult attachment style, but individuals who were secure in infancy but not adulthood were significantly more likely to have depressed mothers than those who remained secure over time (Weinfeld et al., 2000). General negative life events also serve to maintain an insecure attachment style from infancy to adolescence (Hamilton, 2000) and predict an individual's change from secure to insecure attachment over 20 years (Waters et al., 2000).

Another recent study using growth curve models demonstrates that experiences in adolescence and adulthood can also lead to changes in attachment (Ryzin, Carlson, & Sroufe, 2011). In this study of individuals from low-income households, those who were secure in infancy and adolescence but not adulthood experienced more maternal support and had greater peer competence than those who were stably insecure. However, these individuals also experienced more stress related to family compared to those who remained secure, indicating that positive early experiences are not always sufficient for the maintenance of a secure attachment style in the face of subsequent negative events. Individuals who were secure in infancy and adulthood but not adolescence were similar with the exception that they had higher levels of relationship competence and satisfaction in young adulthood. Thus, with the help of supportive partners, these individuals seemed to recover from stressful familial experiences in adolescence.

Interestingly, there is some evidence that attachment is unlikely to be stable over longer periods of time. Specifically, in the meta-analysis by Pinquart et al. (2013), coefficients for stability were not significant when measuring attachment over 15 years, but it should be recognized that only a handful of studies were available to examine intervals of this length. Similarly, in a study examining over 800 individuals, Groh et al. (2014) found only weak evidence of

stability ( $r = .12$ ) in security from early childhood to age 18. Results in this area point to the possible inability to predict continuity or discontinuity of attachment over large periods of time despite some evidence of stability over shorter time spans (see Waters et al., 2000 for an exception). In light of these findings, more studies should examine stability and instability in attachment over both short and long periods of time. For example, studies could examine predictors of continuity and change from infancy to childhood, childhood to adolescence, and adolescence to adulthood in addition to looking at stability from infancy and early childhood into adulthood. This may provide a fuller picture of how attachment changes over different stages of the life course.

There is also a large body of literature examining the stability of attachment *within* adulthood relying on self-report data. Compared to the child development literature, studies with adults point to slightly less stability in attachment over time, especially compared to community samples. Researchers have asserted that one reason for this difference may be methodological. For example, Davila and Cobb (2003) discuss that the self-report instruments used with adults may capture more momentary changes in attachment in response to short-term stressors rather than more long-term and permanent changes in attachment, which may be captured by interview methods. Others have also shared the point of view that the instability in attachment seen in adulthood may be a product of momentary, but not permanent, deviations in attachment (e.g., Zhang & Labouvie-Vief, 2004).

Specifically, across studies published in the past two decades, test–retest correlations for attachment in adulthood range from .46 to .86 for periods of time ranging from 5 months to 1 year (Davila & Cobb, 2003; Feeney, Alexander, Noller, & Hohaus, 2003; Ruvolo, Fabin, & Ruvolo, 2001; Scharfe & Cole, 2006) and from .35 to .49 for periods of time ranging from 2 to 6 years (Cozzarelli, Karafa, Collins, & Tagler, 2003; Zhang & Labouvie-Vief, 2004). Moreover, studies focusing on adults show stability in attachment for 54–74% of participants (Cozzarelli et al., 2003; Ruvolo et al., 2001). These rates are similar to earlier studies with adults, which report stability for 60–70% of participants (see for Ruvolo et al., 2001 and Scharfe & Cole, 2006 for reviews of earlier literature). As a whole, these estimates indicate that stability in attachment across the adult years is moderate to low.

Literature on stability and change in attachment during adulthood has paid less attention to predictors of this process compared to studies following individuals from infancy/childhood into adulthood. However, studies have examined both psychological and relational covariates of (in)stability. For example, Cozzarelli et al. (2003) examined how stability in adult attachment was related to changes in both relationship-related events and perceptions of self and others. Specifically, they reported that marriage was more likely among the stably secure, a break-up was more likely for those who changed to insecure, self-esteem increased most for those who became secure over

time, perceived social support remained lowest for those who were stably insecure over time, and interpersonal conflict remained highest for those who were stably insecure. Similarly, other studies have shown that a breakup, depression, and maladaptive coping and conflict skills are associated with decreased attachment security over time (Ruvolo et al., 2001; Zhang & Labouvie-Vief, 2004).

Some studies have assessed predictors, rather than correlates, of change in attachment during adulthood. Davila and Cobb (2003) used structural equation modeling to demonstrate that personal vulnerabilities (e.g., relationship stress, psychological disorders) and a lack of clear representations of self and others were significant mediators of changes in attachment security. In terms of mental health, Feeney, Alexander, Noller, and Hohaus (2003) found that depression among new mothers was predictive of changes in secure attachment for both wives and husbands, and Scharfe & Cole (2006) found that depression and anxiety acted to maintain anxious attachment among recent college graduates over a period of 7 months. In sum, while positive relationships and perceptions of the self and others may maintain or increase security of attachment, mental health difficulties as well as negative relationship skills and events can lead to or maintain an insecure attachment over time.

## **Intrapersonal and relational outcomes of attachment**

### ***Attachment and affect regulation***

Recently, attachment theory has been used to describe individual differences in affect regulation. According to the theory, the attachment system is activated under stress and individuals turn to attachment figures to reestablish attachment security. This is accomplished through proximity seeking (Bowlby, 1973). When caregivers are sensitive to bids for proximity, children learn how to regulate their emotions successfully. However, children who experience ineffective parenting learn proximity seeking is an unsuccessful strategy for easing their distress, so these children develop secondary attachment strategies that they continue to use in adulthood (Bowlby, 1988; Cassidy & Kobak, 1988). Recently, theorists have discussed two secondary attachment strategies, and each is associated with a specific type of attachment style (Cassidy & Kobak, 1988; Mikulincer, Shaver, & Pereg, 2003). Avoidantly attached individuals rely on deactivating strategies or dissociative techniques to avoid threatening events and suppress thoughts and emotions. Theoretically, these strategies develop when parents are rejecting and prohibit the expression of emotions without modeling positive affect control strategies. Anxiously attached individuals rely on hyperactivating strategies to constantly monitor the environment for threats and tend to detect threats in mundane

interactions. In fact, this type of strategy is hypothesized to keep the attachment system continually activated as it involves constant attempts to attain greater support from others. According to recent theorizing, these strategies develop when parents are intrusive and inconsistent to the point that a child is unable to learn self-regulation skills (Mikulincer et al., 2003).

Although researchers have not explicitly addressed these theoretical claims, empirical studies show a relationship between positive emotion socialization and a secure attachment style. For example, mothers who engaged in emotional coaching had children with higher levels of secure attachment while mothers who were dismissive of their children's emotions had children who were low on attachment security. These findings highlight the dyadic nature of both attachment and emotion regulation (Chen, Lin, & Li, 2012). Further, research supports the idea that secure individuals successfully regulate emotions while insecure individuals struggle with this task. For example, attachment security was associated with less expression of negative affect by toddlers (Smith, Calkins, & Keane, 2006). Among adolescents, a secure attachment style is associated with higher levels of empathy and forgiveness and less jealousy compared to less securely attached adolescents (Murphy, Laible, Augustine, & Robeson, 2015). The association between secure attachment and these social emotions was further mediated by low levels of negative emotionality and high levels of positive emotion regulation behaviors. On the other hand, Brenning and Braet (2013) demonstrated that avoidant adolescents were more likely to suppress sadness and fail to regulate anger than their secure peers, and anxious adolescents failed to regulate both anger and sadness. Thus, consistent with secondary attachment strategies, anxious individuals are unable to control their emotions and avoidant individuals both suppress and struggle to regulate their emotions. Research is needed to test the connection between specific parenting experiences and nuances of the two secondary attachment strategies, but these studies provide initial support for such a relationship.

### ***Attachment and psychopathology***

Researchers have also applied attachment theory to explain the development of psychopathology. According to Mikulincer and Shaver (2012b), insecure individuals lack the mental foundation to cope with negative life events due to a history of stressful events and interpersonal relationships characterized by rejection and inconsistency. Specifically, empirical studies show a relationship between insecure attachment and both externalizing and internalizing symptomatology. For example, studies have demonstrated a connection between an insecure attachment and conduct problems in 6-year-olds (Vando, Rhule-Louie, McMahan, & Spieker, 2008) as well as oppositional defiant disorder and delinquency among adolescents (Scott, Briskman, Woolgar, Humayun, & O'Connor, 2011). Adolescents and adults with an

insecure attachment style are also at an elevated risk for alcohol and drug use problems (Oshri et al., 2015; Starks, Millar, Tuck, & Wells, 2015). Studies further support that an insecure attachment style is related to internalizing problems in adolescence and adulthood including anxiety (Brown & Wright, 2003; Ronnlund & Karlsson, 2006), depression (Brenning et al., 2012; Monti & Rudolph, 2014), suicidality (Levi-Belz, Gvion, Horesh, & Apter, 2013; Riggs & Jacobvitz, 2002), and self-harm behaviors (Glazebrook, Townsend, & Sayal, 2015) as well as PTSD (Muller, Sicoli, & Lemieux, 2000; Waldman-Levi, Finzi-Dottan, & Weintraub, 2015). In a study using growth curve analysis, less secure individuals had significantly higher levels of depressive symptoms at baseline that were maintained over 3 years. Further, less secure individuals displayed significantly greater growth in their trajectories of externalizing behaviors throughout adolescence (Allen, Porter, McFarland, McElhaney, & Marsh, 2007).

Interestingly, problems with emotion regulation partially account for the connection between attachment and psychopathology. For example, researchers reported that attachment anxiety was indirectly related to depression through the dysregulation of sadness, and both anxious and avoidant attachment were indirectly related to adolescent aggressiveness through anger dysregulation (Brenning & Braet, 2013). Similarly, Monti and Rudolph (2014) found that a lack of emotional awareness was a significant mediator between avoidant attachment and depression but not for the relation between anxious attachment and depression. These findings again highlight that anxiously attached individuals struggle to regulate their emotions while avoidantly attached individuals both attempt to suppress emotions and fail to engage in positive emotion regulation behaviors.

Researchers have also shown that attachment mediates the relationship between early family experiences and later psychopathology (e.g., Muller, Thornback, & Bedi, 2012). For instance, Oshri et al. (2015) reported that an anxious attachment style mediated the association between childhood sexual abuse and emotional abuse and alcohol use in young adulthood while an avoidant attachment style mediated the association between sexual and emotional abuse and both drug use and antisocial behaviors. Also, both anxious and avoidant attachment styles have been shown to mediate the relationship between parent and offspring depression (Brenning et al., 2012). More work is needed to test attachment as a mediator between various family experiences and psychopathology across the life course. Thus, research on familial predictors of adolescent and adulthood psychopathology may benefit from the inclusion of attachment theory concepts such as internal working models and attachment styles.

### ***Attachment and romantic relationships***

Hazan and Shaver (1987) were the first researchers to test Bowlby's idea that attachment would influence one's romantic relationships, and they described

three attachment styles. Secure individuals are comfortable with intimacy and easily trust their partner, avoidant individuals fear intimacy and closeness and avoid relationships, and anxious individuals obsess over their relationship and desire a high level of reciprocity and closeness. A large body of empirical research supports a connection between attachment and an individual's approach to romantic relationships in adolescence and adulthood. Specifically, attachment security tends to be related to higher quality romantic relationships as well as greater commitment and stability in these relationships. For instance, Roisman, Collins, Sroufe, and Egeland (2005) reported that secure emerging adults had higher quality romantic relationships and perceived their relationships as closer and more positive than did insecure emerging adults. Secure individuals also report that they both receive and give more emotional support to their romantic partners compared to insecurely attached individuals (Davila & Kashy, 2009). In terms of relationship commitment, individuals with a secure attachment style tend to report higher levels of marital commitment (Ehrenberg, Robertson, & Pringle, 2012), less infidelity (Fish, Pavkov, Wetchler, & Bercik, 2012), and more stable relationships (Fagundes & Schindler, 2012). Furthermore, high personal commitment may be responsible for mediating the association between a more secure attachment style and greater satisfaction with one's romantic relationships (Ho et al., 2012).

A secure attachment may also be a linking mechanism between positive family or origin experiences and positive romantic relationships in adulthood. For example, internal working models of secure attachment have been shown to mediate the relationship between high-quality parent-child interactions and later supportive behaviors with intimate partners (Roisman, Madsen, Hennighausen, Sroufe, & Collins, 2001). Jamecke and South (2013) found that a more secure attachment style mediated the relationship between parent's marital satisfaction and offspring's marital satisfaction among newlyweds. In another study utilizing a longitudinal sample of African American families, Simons, Simons, Landor, Bryant, and Beach (2014) reported that a secure attachment style partially accounted for the association between supportive parenting in adolescence and warm, loving behaviors toward a romantic partner in early adulthood. Thus, a secure attachment style may be an important link between high-quality relationships in the family of origin and the family of destination. Research also shows that the relationship between high-quality romantic relationships and attachment might be reciprocal. For example, Dinero, Conger, Shaver, Widaman, and Larsen-Rife (2001) found that high-quality family interactions in adolescence predicted romantic interactions characterized by warmth, support, and responsiveness as well as attachment security at age 25. However, only positive romantic interactions at age 25 continued to predict security at age 27. These findings underscore the fact that while parents provide the basis for attachment, attachment is also influenced by experiences within romantic relationships over time (Roisman et al., 2005).

Negative early familial experiences can also have a lasting effect on adult romantic relationship quality and expectations about relationships through attachment. Steinberg, Davila, and Fincham (2006) showed that low levels of attachment security mediated the relationship between perceived parental conflict and the expectation that marriages are unhappy and lead to divorce among adolescents. Jensen, Willoughby, Holman, Busby, and Shafer (2015) also investigated the effect of past familial experiences and attachment on beliefs about marital relationships among emerging adults. They found that an anxious attachment style was related not only to higher levels of belief in marriage being advantageous but also to lower levels of belief that marriage is permanent. On the other hand, an avoidant attachment style was related to low levels of belief that marriage is advantageous, permanent, or a priority. Further, both insecure attachment styles mediated the association between early family experiences and these beliefs about marriage. Another study used an actor-partner interdependence model to explore the relationships among childhood abuse, attachment, and dyadic adjustment of dating college students (Riggs, Cusimano, & Benson, 2011). Studies of this kind are important as the most appropriate unit of analysis for addressing attachment theory is a dyad. In this study, actor avoidance and anxiety significantly mediated the relationship between memories of emotional abuse and a participant's own dyadic adjustment. For partner effects, partner attachment anxiety mediated the relationship between a partner's memory of emotional abuse and the target participant's perception of having a low-quality relationship. Thus, familial experiences and attachment styles of both members of a couple can influence an individual's current perception of the quality of their romantic relationship.

Last, insecure attachment is a risk factor for intimate partner violence and may be one mechanisms that accounts for the intergenerational transmission of family violence (Doumas, Pearson, Elgin, & McKinley, 2008; Grych & Kinsfogel, 2010; Hare, Miga, & Allen, 2009; Sutton, Simons, Wickrama, & Futris, 2014). For instance, Hare et al. (2009) used longitudinal data to explore the connection between aggression between parents and adolescent's aggression toward their own partner 5 years later; they found that aggression between parents predicted both victimization and perpetration among offspring but only for those with an insecure attachment style. In another recent study using an actor-partner interdependence model, early experiences of abuse in the family and later perpetration of partner violence were mediated by both anxious and avoidant attachment styles for men and women (Godbout, Dutton, Lussier, & Sabourin, 2009). This study also reported that women and men were more likely to perpetrate violence if they have an anxiously attached partner. Similarly, Doumas et al. (2008) found especially detrimental outcomes for the specific combination of an anxiously attached woman and an avoidantly attached man, with these couples displaying the

highest rates of perpetration for both sexes. These findings mirror the study mentioned previously (Riggs et al., 2011), and couples with at least one anxiously attached person may be particularly at risk for low-quality and violent romantic relationships.

Studies on conflict tactics and affect regulation help illuminate the empirical relationship between attachment and partner violence. Specifically, anxious and avoidant individuals have fewer positive conflict management skills, more negative conflict management skills, and greater difficulties coping with conflict than secure individuals (Creasey & Hesson-McInnis, 2001). Avoidant and anxious attachment styles are also related to anger, hostility, and aggression in interactions with others (Muris, Meesters, Morren, & Moorman, 2004). Avoidantly attached individuals also tend to suppress displays of emotion and engage in less accommodating behaviors during conflict while anxiously attached individuals express more anger and bids for support from their partner (Nisenbaum & Lopez, 2015). Furthermore, hyperactivating and deactivating affect regulation strategies stemming from insecure attachment styles may play a role in partner violence. A recent qualitative study demonstrated that when the goals of these affect regulation strategies are thwarted, individuals are likely to become violent toward a partner. Specifically, avoidant individuals became violent when escapist strategies were ignored as partners continued to engage in disagreements, and anxious individuals became violent when attempts to gain greater support and closeness from a partner were unsuccessful (Allison, Bartholomew, Mayseless, & Dutton, 2008). Given the proclivity for anxiously attached individuals to be emotionally expressive and support seeking and the tendency for avoidantly attached individuals to eschew emotions and engagement, these studies help clarify why violence may be highest when a couple involves a pairing of avoidantly and anxiously attached partners.

Future research should further explore this connection between insecure attachment styles and affect regulation which might confer risk for negative dyadic interactions including partner violence. Further, the concept of internal working models can be used more often to guide work on attachment and romantic relationships. Internal working models are proposed to impact the way individuals think about and process interactions with intimate partners, especially when under stress (Bowlby, 1988). If internal working models do in fact work this way, then they should encompass very specific beliefs about relationships, including beliefs about disagreements and arguments, trust, commitment, and specific partners. For example, Sutton et al. (2014) found that destructive disagreement beliefs (i.e., the belief that even minor disagreement signal that a relationship is in trouble) mediated the effect of an insecure attachment style on partner violence perpetration and victimization. Thus, researchers should explore mediators that connect attachment style to



romantic relationship outcomes and IPV through specific and nuanced schemas about the self, romantic partners, and romantic relationships. Finally, given the detrimental impact of mental health issues on romantic relationships (e.g., Papp, Goeke-Morey, & Cummings, 2007) and the connection between attachment and psychopathology, researchers can use attachment theory to make connections among childhood experiences, attachment, psychopathology, and romantic relationship outcomes in future work.

### ***Implications for relationship and marriage education***

Together, these findings have several implications for relationship and marriage education (RME). First, RME programs could include lessons that focus on helping parents develop warm and responsive parenting strategies. This could increase the likelihood that their offspring will develop a secure attachment and thus have more satisfying and less violent relationships as adults. Previous studies provide evidence that participation in parental education programs is related to an increase in the use of effective parenting strategies (Brody et al., 2006). Second, programs could teach individuals with an insecure attachment style how to express their emotions in a healthy way. A recent study on attachment-focused therapy found this type of intervention to be effective for reducing irrational relationship beliefs, increasing self-esteem, decreasing anger reactions, and increasing control of anger (Kilmann, Urbaniak, & Parnell, 2006b). Last, RME programs could include lessons on constructively handling conflict. As discussed, insecure adults lack conflict resolution skills, but programs that teach these skills decrease physical and emotional partner abuse and increase relationship quality (Antle, Karam, Christensen, Barbee, & Sar, 2011).

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