

Pathways to generalized and partner-specific attachment representations in adulthood:

A developmental perspective on the organization of romantic behavior

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“We are moulded and remoulded by those who have loved us;
and though the love may pass we are nevertheless their work for good or ill.”

– Francois Mauriac, cited in Bowlby (1969/1982)

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Dedication

To all who feel passionately about their work, and work passionately toward good ends.

“The brain is wider than the sky.”

- Emily Dickinson

Abstract

This study tested a model of developmental processes by which generalized and romantic-partner specific attachment representations emerge was tested, and tested the joint contribution of both representations to concurrent romantic functioning. Participants (N = 112) in a 32-year longitudinal study of risk and adaptation were grouped based on the security of their generalized and partner-specific attachment representations (Sec/Sec, Ins/Ins, Ins/Sec, and Sec/Ins). The four groups were compared on antecedent measures of infant attachment, parenting quality at 24 months, 54-month ego resilience, middle childhood peer competence, adolescent friendship quality, adjustment prior to the romantic partnership, and concurrent observed and self-reported romantic functioning in early adulthood. Results indicated that both early and later experience shaped developmental pathways to configurations of adult attachment representations. The Ins_{AAI}/Sec_{CRI} group differed from their concordant-insecure counterparts on measures of both earlier and concurrent relationship functioning. Sec_{AAI}/Ins_{CRI} individuals functioned similarly to Sec_{AAI}/Sec_{CRI} individuals in their romantic partnerships, but differed on earlier individual functioning. Results provided evidence that attachment functioning in adulthood is multiply and probabilistically determined by both earlier and later experiences. Implications for process approaches to the study of developmental organization of romantic behavior are discussed.

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Introduction

The past several decades have witnessed successful elaboration of Bowlby's (1969/1982) attachment theory on both theoretical and empirical fronts. The major longitudinal studies of attachment across multiple developmental periods have provided substantial evidence of mechanisms involved in the development of attachment relationships and placed these mechanisms in context by mapping their antecedents and subsequent outcomes (see Grossman, Grossman, & Waters, 2005). The fruitful aging of these longitudinal studies has contributed unique and powerful insights about the nature and course of attachment across the lifespan. As a group, they have produced a coherent accumulation of findings regarding developmental implications of early attachment relationships for children's and adolescents' social competencies, self-regulatory processes, and emergent psychopathology. Substantial evidence has also accumulated regarding the concurrent and shorter-term influence of attachment representations on analogous domains of adult functioning including romantic relationships, psychopathology, and parenting (see Sroufe, Egeland, Carlson, & Collins, 2005). A third and somewhat smaller body of empirical effort has examined the implications of romantic attachment representations on romantic functioning and stability (Carlivati, 2006; Creasey & Ladd, 2005; Crowell & Waters, 2005). Taken together, these findings underscore the predictive capacity and specific developmental significance of attachment representations for multiple domains of functioning across the lifespan.

Two key gaps exist within the adult attachment literature, however. The first concerns the distinct or overlapping roles of generalized and romantic-partner specific attachment representations in organizing romantic behavior (Carlivati & Collins, 2007;

Treboux, Crowell, & Waters, 2004). Unfortunately this question has often been framed as whether the generalized or specific attachment representation holds greater importance in guiding romantic behaviors. Overall, Fletcher, and Friesen (2003) found support for a hierarchical model in which relationship-specific representations were nested within relationship domain-specific representations, which were in turn nested under a single global attachment representation. This structure may be due in part to the temporal sequence of relationships on which different representations are based. Generalized representations are based on accumulation of attachment experiences in multiple relationships across the lifespan. Thus, they are thought to be more robust and may exert greater influence on behavior than romantic partner-specific representations, which are founded on relatively smaller accumulation of interactions with a specific partner (Overall et al., 2003; Treboux et al., 2004). Overall et al. (2003) did not, however, assess links between hierarchical representation structures and domain-specific behaviors.

In an effort to examine a transactional hypothesis in which the two representations jointly guide romantic behavior, Carlivati (2006) tested competing mediational models to determine whether effects of generalized representations on romantic behavior were mediated by romantic attachment representations (or vice versa). Conclusive evidence was not found for either effect. At this point, the extent to which romantic behaviors and cognition are jointly guided by representations of earlier history and/or representations of current romantic partners remains unclear.

Questions about the functional roles of different representations necessarily raise questions about how they develop. A second gap in the literature involves a clear understanding of the developmental pathways toward the constellation of multiple

attachment representations in adulthood. Attachment theorists have long argued against overly deterministic misinterpretations of the theory in favor of more probabilistic conceptualizations. Evidence of continuity of attachment across the lifespan have fueled more precise efforts to study the processes through which such continuity obtains. Sroufe, Coffino, and Carlson (in preparation) described the person-environment transactions through which an avoidant child may engage the environment (and new relationship partners in it) in ways that perpetuate interpersonal experiences that reinforce avoidant/dismissive attachment in the child's subsequent relationships. Thus, avoidant attachment does not persist on its own; rather continuity obtains through replication of interpersonal processes in subsequent relational contexts, including adult romantic partnerships.

The developmental processes by which romantic partner-specific representations emerge in the context of existing generalized representations of earlier attachment experience (and accumulated experience in multiple attachment relationships) remain relatively understudied. Grossman, Grossman, and Kindler (2005) examined the influence of parental support and child strategies for coping with emotional adversity across childhood and adolescence on security of generalized and partner representations in early adulthood. Their analyses, however, did not account for earlier experiences and competencies in voluntary relationships or the influence of current romantic partners, nor did they examine effects the two representations on concurrent romantic functioning. The present investigation addressed these questions in an attempt to link flourishing yet somewhat disconnected literatures regarding romantic attachment representations and functioning.

Literature Review

Attachment Representations and Romantic Functioning

Both generalized and romantic partner-specific attachment representations have been linked to a number of specific romantic behaviors and outcomes. The majority of research examining relations between generalized attachment representations and romantic functioning has relied on the Adult Attachment Interview (AAI; Main & Goldwyn, 1998) to measure generalized attachment representations. Secure AAI classifications as well as optimal scores on continuous subscales used to derive overall classifications have been associated with more fluent and positive emotion expression (Bouthillier, Julien, Dube, Belanger, & Hemelin, 2002; Paley, Cox, Burchinal, & Payne, 1999; Roisman, Madsen, Hennighausen, Sroufe, & Collins, 2001; Spangler & Zimmerman, 1999), and optimal autonomic and neurobiological reactivity (Powers, Pietromonaco, Gunlicks, & Sayer, 2006; Roisman, 2007). AAI security is also associated with better secure base support and care-seeking (Crowell, Treboux, & Waters, 2002; Simpson, Rholes, Oriña, & Grich, 2002; Simpson, Winterheld, Rholes, & Oriña, 2007), lower conflict and more effective conflict resolution (Bouthillier et al., 2002; Cohn, Silver, Cowan, Cowan, & Pearson, 1992; Creasey, 2002; Creasey & Ladd, 2005; Haydon, Salvatore, & Collins, 2008; Kobak & Hazan, 1991; Wampler, Shi, Nelson, & Kimball, 2003), and more positive relationship perceptions (Carlivati, 2006; Roisman et al., 2001; Treboux et al., 2004).

Relatively less work has examined the role of romantic partner-specific attachment representations, but the pattern of relations to romantic behavior and cognition is similar to those observed in research using the AAI. The most widely used

representational assessment of romantic attachment is the Current Relationship Interview (CRI; Crowell & Owens, 1996). The CRI is analogous to the AAI in structure and coding, and yields an overall classification as well as continuous scores on experience and states of mind scales. Secure romantic attachment representations, as assessed by the CRI, have been linked to better secure base behavior (Carlivati, 2006; Roisman, Collins, Sroufe, & Egeland, 2005; Treboux et al., 2004), lower conflict and better conflict resolution (Carlivati, 2006; Haydon, Salvatore, & Collins, 2008; Treboux et al., 2004) more positive and less negative emotion expression (Carlivati, 2006; Roisman et al., 2005; Treboux et al., 2004), and more positive relationship perceptions (Carlivati, 2006; Roisman et al., 2001).

In general, security on both the AAI and CRI is associated with optimal relationship functioning outcomes, whereas insecurity is associated with relationship distress, poorer observed behaviors, and relationship instability. Despite evidence of overlap in links between the two representations and romantic functioning, the effects of generalized and partner specific representations have rarely been tested in conjunction. To date, only one published study has attempted to examine the joint effects of generalized and partner-specific attachment representations on romantic behavior. Treboux et al. (2004) examined differences in relationship functioning and stability based on within-individual configurations of generalized and partner-specific representations. Their goal was to understand the implications for relationship functioning when the “old” generalized representation is challenged or confirmed by a “new” representation of a specific romantic partner, and to explore whether distinct patterns of functioning would

be observed for each of the four possible configurations of security and insecurity on the AAI and CRI (p. 297).

To address these questions, the authors created four groups based on AAI and CRI classifications: Secure_{AAI}/Secure_{CRI}, Secure_{AAI}/Insecure_{CRI}, Insecure_{AAI}/Secure_{CRI}, or Insecure_{AAI}/Insecure_{CRI}. This investigation revealed intriguing differences among the four groups in the effectiveness of observed secure-base behaviors with the romantic partner and self-reported feelings about the partner and relationship conflicts. Findings for the concordant AAI/CRI groups (69% of the sample) were as expected. Individuals classified as secure on both the AAI and CRI displayed the most effective relationship functioning, whereas the concordant-insecure group displayed the least optimal romantic functioning. A particularly interesting pattern of findings emerged for the discordant groups (30% of the sample). The Secure_{AAI}/Insecure_{CRI} group reported the least positive feelings about their relationships, and displayed significantly less effective secure base behavior than the Secure_{AAI}/Secure_{CRI} group. The authors attributed this difference to the mismatch for the Secure_{AAI}/Insecure_{CRI} group between their generalized expectations of positive experience in attachment relationships and the comparatively less positive experiences with their current partners. By contrast, the Insecure_{AAI}/Secure_{CRI} group reported the most positive feelings about their relationships, but also displayed significantly less effective secure base behavior than the Secure_{AAI}/Secure_{CRI} group. This difference possibly reflects the extent to which the relationship with the partner exceeded expectations set by the insecure generalized representation, and the constraints on the capacity for secure base support due to the insecure generalized representation.

Treboux et al. (2004) demonstrated that meaningful differences in functioning and longer-term relationship trajectories are related to specific configurations of generalized and partner specific attachment representations. An important contribution of this work is the demonstration that discordance between generalized and partner-specific representations was related in distinct and meaningful ways to aspects of relationship functioning. This finding has implications for a long-standing question within attachment research regarding how the configuration of attachment representations develops. The prototype hypothesis postulates that early relationships serve as prototypes or templates on which all subsequent relationships are based (Owens, Crowell, Pan, Treboux, O'Connor, & Waters, 1995; Crowell & Waters, 2005). In its strictest formulations, the prototype hypothesis would predict high concordance rates between generalized and specific representations. The prevalence of individuals with discordant representations in Treboux et al.'s sample provides important evidence in support of more probabilistic formulations of the prototype hypothesis (e.g., Roisman et al., 2005) and suggests that more specific understanding of how romantic attachment representations develop in light of preexisting generalized representations is needed.

Sroufe et al. (2005) argued for moving away from questions of whether continuity occurs in favor of questions about how continuity and change are governed. Examination of off-diagonals – in this case, the discordant groups – would offer rich insight into developmental processes toward this end. Under what circumstances would a person with a secure generalized representation of earlier experience form an insecure partner representation? What would promote a person with an insecure generalized representation to form a secure representation of a romantic partner? Answers to these

questions would elaborate knowledge of processes that shape attachment representations in adulthood, and the distinctive or overlapping contributions of generalized and specific representations to romantic behavior.

A developmental model of antecedents on which subsequent specific attachment representation configurations differ is needed in order to accomplish this task. In conceptualizing such a model, the present study relied on several key principles of development itself. First, the model takes a developmental pathways framework (e.g., Bowlby, 1973) in which individuals with discordant attachment representations in adulthood are conceptualized as being on somewhat different developmental pathways from their concordant counterparts. Thus, the model attempts to identify factors associated with earlier divergence in developmental organization between later concordant and discordant groups.

Second, the model takes into account the idea that functioning at any point in development is best predicted by the contributions of both developmental history and current challenges and available supports (Bowlby, 1973; Sroufe et al., in preparation). Early experience in close relationships calibrates interpersonal repertoires; later circumstances affect how those capacities are used in a given context. Thus, the present model of developmental pathways toward specific attachment representation configurations in adulthood assesses salient aspects of early experience as well as concurrent circumstances and contexts in which the romantic attachment representation develops.

Third, the model attempts to go beyond merely demonstrating general correlates of secure or insecure attachment across time. Rather, the model should identify earlier

areas of divergence between individuals with the same quality generalized representations who later diverge in the quality of their romantic representations. The goal is to identify specific contexts which may deflect the child from a previous pathway toward concordant representations, thus identifying lawful concordance and discordance in adult attachment representational configurations.

Finally, the model taps two broad domains of functioning in earlier development that facilitate later romantic outcomes. Romantic competence involves affiliation and partner selection (which rest upon individual skills and functioning in an open social field). Romantic competence also involves capacities to function in dyadic systems once a partner has been selected (related to interpersonal capacities developed in earlier close relationships). Thus, the model includes measures of both of these broad domains of experience which prepare children to engage in later romantic relationships.

Theoretical Rationale for Hypotheses

With these criteria in mind, the present study had two goals. The first was to replicate Treboux et al.'s (2004) observation of differences in functioning among the four representational groups. The second goal was to test a model of antecedents of representational discordance that incorporated measures of earlier individual functioning and adaptation (i.e., self-regulation, peer competence, and adjustment) as well as experience in prior close relationships with parents and friends. Each of these should theoretically shape attachment representation configurations in adulthood, either through direct or indirect contributions.

Early parenting experience should be a powerful predictor of representational discordance in adulthood. Parents' influence on their children's social development is

widely known. Links between the quality of infant attachment to later romantic functioning have been observed (Roisman et al., 2001). Aspects of parenting other than attachment quality (e.g., scaffolding of problem-solving skills) should also influence subsequent relational and individual functioning. For example, parenting that facilitates secure attachment in infancy but is relatively less competent in other domains (e.g., relatively poor structure and limit setting) may promote subsequent representational discordance. The present study sought to demonstrate that quality of early parenting, controlling for the quality of infant attachment, influences divergence between the subsequent concordant and discordant representational groups.

Self-regulatory capacities should also serve as a point of divergence between later discordant groups and their concordant counterparts. Early parenting calibrates regulatory capacities in dyadic contexts (see Sroufe et al., 2005). Poor ego resilience has also been associated with earlier attachment insecurity as well as insecurity on the AAI (Arend, Gove, & Sroufe, 1979; Grossman et al., 2005; Kobak & Sceery, 1988). Flexible regulation of behavior in response to changing environmental demands in new contexts outside of the parent-child dyad has also been associated with peer competence and friendship quality (Elicker, Englund, & Sroufe, 1992). Poor ego resilience may also compromise entry into early romantic involvement in adolescence. The present study examined whether earlier poor regulation compromised the likelihood of secure romantic representations for those with secure generalized representations of attachment history, and whether those with insecure generalized representations but secure romantic representations exhibited relatively better ego resilience in preschool than their insecure-concordant counterparts.

Peer competence in middle childhood should also serve as a marker of individual functioning in social contexts linked to later representational discordance or concordance. Affiliative competence across middle childhood and adolescence forecasts successful involvement in later romantic relationships (Collins & van Dulmen, 2006). Peer competence in middle childhood has also been associated with later optimal romantic functioning (Simpson, Collins, Tran, & Haydon, 2007). These linkages may result from the fact that, for heterosexual adolescents, peer competence facilitates greater access to romantic partners (Connolly, Furman, & Konarski, 2000; Furman, 1999). Higher peer competence across childhood may also be related to higher likelihood of choosing a partner with whom one is likely to form a secure romantic relationship.

The quality of adolescents' close, intimate friendships are known precursors of later romantic functioning (Collins, Henngihausen, Schmit, & Sroufe, 1997; Furman, 1999; Furman et al., 2002; Simpson et al., 2007; Zimmerman, 2004). Participation in new close relationships that serve attachment-like functions (e.g., mutual support-giving, mutual displays of emotional vulnerability) may provide opportunities to experience interpersonal interactions that depart from previous experience in parent-child attachment relationships. Thus, individuals with insecure attachment histories who are nonetheless able to establish relatively high quality friendships in adolescence may be more likely to form secure romantic partnerships based on more proximal positive experiences in adolescent friendships. Individuals with secure histories who encounter difficulties forming high quality friendships in adolescence may be at relatively greater risk of developing insecure romantic representations.

Adjustment coinciding with the earlier stages of the romantic partnership may influence an individual's capacity to form a secure or insecure representation of that relationship. Bowlby described the process by which changes in parents' levels of life stress may in turn affect parent-child interactions and result in a change in parent-infant attachment quality. Davila and Cobb (2003) applied Bowlby's model to romantic attachment by demonstrating that increased life stress and negative life events were associated with insecure romantic attachment representations. Individual adaptation, measured by global adjustment, may similarly affect the development of the partner specific representation and may be particularly powerful in explaining the discordant groups. A person who experiences a period of relatively poor adjustment coinciding with the partnership formation may be vulnerable to forming an insecure partner representation even if he or she has a secure generalized attachment representation. Conversely, a period of relatively better adjustment as the partnership develops may allow individuals with insecure histories to capitalize on new opportunities to form secure romantic partnerships.

Characteristics of the partner should also influence the quality of individuals' partner-specific attachment representations. Hartup (1996) described the importance of accounting for characteristics of children's friends when understanding the developmental significance of children's friendships. The same principle applies to understanding partners' roles in promoting individual romantic outcomes. With respect to predicting discordant representations, relevant partner characteristics include the partner's own attachment representation, relationship perceptions, and attachment-relevant behaviors. Evidence from studies of parent-child and romantic dyads suggests

that secure people may be more likely to facilitate their partner's attachment security and secure-base behavior than insecure people (Posada, Waters, Crowell, & Lay, 1995; Simpson et al., 2002). Previous observations of moderate concordance between partners' attachment representations have not fully addressed whether concordance is assortative (a priori) or a function of convergence of partners' attachment representations as the relationship progresses (Crowell et al., 2002; van IJzendoorn & Bakermans-Kranenburg, 1996). Thus, the mechanism of influence on the developing romantic representation likely involves both the quality of the partner's generalized representation and the quality of behavioral interactions between partners over time.

Hypotheses

To summarize, the present study tested the following hypotheses regarding links between attachment representations, romantic functioning, and developmental pathways toward attachment representations. First, links between AAI/CRI configurations and romantic functioning were expected to replicate Treboux et al.'s (2004) findings. The Insecure_{AAI}/Secure_{CRI} group was expected to display better romantic function than their insecure-concordant counterparts, whereas the Secure_{AAI}/Insecure_{CRI} group was expected to display comparatively poorer romantic functioning than their secure-concordant counterparts.

Second, compared to the secure-concordant group, Secure_{AAI}/Insecure_{CRI} individuals were expected to have 1) experienced poorer quality relationships with parents and friends and lower peer competence in earlier development, 2) poorer ego resilience in preschool, 3) poorer adjustment coinciding with partner-representation formation, and 4) a current romantic partner who held an insecure romantic attachment

representation and more negative relationship perceptions. Compared to the insecure-concordant group, Insecure_{AAI}/Secure_{CRI} individuals were hypothesized to have 1) experienced better quality relationships with parents and friends and higher peer competence in earlier development, 2) higher ego resilience in preschool, 3) better overall adjustment coinciding with partner representation formation, and 4) a current partner who held a secure romantic attachment representation and more positive perceptions of the relationship. These hypotheses reflect the more global hypothesis that opportunities for representational discordance in adulthood emerge from multiple contexts and time points across development.

Method

Participants

Analyses drew on data collected for the Minnesota Longitudinal Study of Risk and Adaptation (MLSRA; Sroufe et al., 2005). The MLSRA began in mid-1970s as a study of 267 at-risk mothers who sought prenatal care from public health clinics in Minneapolis, Minnesota. The target children of these mothers, now 32 years old, have been studied intensively since birth. Today approximately 180 of the original target children still participate in assessments; the majority of sample attrition occurred in the first few months after birth. Assessments (including observation, interview, diagnostic, and survey methodologies) have targeted salient tasks of each developmental period with an emphasis on risk, adaptation, and social development in multiple contexts. The present study relied especially on assessments of participants' functioning in close relationships across development, including relationships with parents in early childhood, peers and friends in adolescence, and romantic partners in early adulthood.

Subsample selection. The outcome variable for the present study (attachment representation configuration) relied in part on data from two waves of romantic relationships assessments conducted when participants were between ages 20-21 and between ages 26-28 (see Couples Assessment Procedure). All unique participants who completed either wave were included in analyses ($N = 112$). Some of these participants completed two assessments with the same partner ($n = 23$), while other participants completed two assessments with two different partners ($n = 25$). The inclusion rule for these cases was as follows. For those who participated in both waves with the same partner, and who had stable romantic attachment representations across waves (e.g., were

classified insecure at both waves), the age 20-21 assessment was selected ($n = 10$). For those who participated with the same partner twice but had different representations across waves (e.g., secure at one wave but insecure at another), the wave in which the romantic representation was discordant with the generalized representation was selected ($n = 11$). For participants who were seen with two different partners but whose romantic attachment representations were classified the same at both assessments (e.g., secure at both waves), the earlier wave was selected ($n = 13$). For participants who were seen with two different partners and were assigned two different representations across waves (e.g., secure at one wave but insecure at another), the wave in which the romantic representation was discordant with the generalized representation was selected ($n = 14$).

The rationale for these inclusion rules was two-fold. First, selecting the discordant wave in cases where participants had one concordant and one discordant assessment sets up a more conservative test of differences between discordant and concordant groups. In other words, because there is evidence that these cases are not “pure” examples of discordance across time or across partners, including them in the discordant groups may minimize differences between the discordant and concordant groups. Second, this strategy maximizes the number of discordant individuals and thus maximizes statistical power in tests of group differences.

Based on these selection criteria, the final sample included 112 target participants (112 heterosexual couples; 68 from the age 20-21 assessment and 44 from the age 26-28 assessment). Target participants were 53% male, 67% White, 11% Black, and 18% mixed race. Fathers’ race information was not available for the remaining 4% of the sample, who are considered of unknown racial background. Mothers’ mean age at time of birth

was 20.6 years; 57% of target participants were born to single mothers. Participants in the selected subsample did not differ significantly from the full sample on these characteristics, except that the selected subsample had a slightly lower rate of missing father data compared to the full sample.

Measures

In accordance with the theoretical basis for hypotheses, measures were selected to reflect salient experiences and capacities from developmental history, current individual adaptation, and features of the romantic partners. Descriptive statistics and zero-order correlations between all variables appear in Tables 2, 3, 5, and 6.

12-month Strange Situation Classification. The quality of parent-infant attachment relationships was assessed at 12 months using the Strange Situation procedure (Ainsworth, Blehar, Waters, & Wall, 1978). Certified raters classified infants' attachment patterns as Secure, Avoidant, or Anxious/Resistant. Among the subsample of original participants who completed romantic relationships assessments in early adulthood, 60% were classified as Secure, and 38% were classified as Avoidant or Anxious/Resistant.

24-month Parenting Assessment. At 24 months, target participants and their mothers participated in a videotaped interaction task in the laboratory (see Sroufe et al., 2005). The task required toddlers to use available tools to solve a series of increasingly difficult problems, which were designed so that toddlers would need assistance from caregivers at some point to accomplish the task. Mothers' behaviors during these interactions were coded on a seven-point scale of Overall Parenting Quality (a global rating of the parent's sensitivity to the child's emotional and developmental needs).

Interrater reliability (intraclass correlation) for this scale was .82.

Ego Resilience at 54 months. Ego resilience at 54 months was assessed by the Block & Block (1973) competing set task. The task required children to repeat a number of statements whose content instructed the child to do or say something. The score reflects the number of correctly repeated statements. For example, when the interviewer prompted the child to say “Tap your foot hard” the correct response was for the child to repeat the statement rather than tapping his or her foot. The scale measured the extent to which target participants could flexibly regulate their behavior in response to changing demands of their environment.

Middle Childhood Peer Competence. Peer competence was assessed in grades 1, 2, 3 and 6. Each participant’s classroom teacher was given criteria for high peer competence. These included being well-liked and respected by peers, having mutual friendships, understanding other children’s perspectives and ideas, and constructively engaging peers in activities. The teacher rank-ordered all children in the classroom according to how closely each student matched these criteria. Teachers were blind to the identity of the target child. Peer competence scores thus represent teachers’ perceptions of each target participant’s percentile rank in his/her class in first, second, third, and sixth grade, divided by the total number of students in each respective class. Accordingly, each participant received a mean peer competence percentile ranking relative to his or her classmates summed across grades 1, 2, 3, and 6. Pearson correlations between peer competence in grades 1, 2, 3, and 6 ranged from .35 to .59.

Adolescent Friendship Quality. At age 16, target participants were administered a comprehensive interview about their closest friendship. Participants were asked to describe their close friendships, including whether and how they disclosed behaviors and

feelings indicative of trust and authenticity within their friendships, and examples of typical conflict resolution. Trained raters coded these responses on global scales of Friendship Security, Disclosure, and Closeness. Friendship security reflected the extent to which target participants reported feeling that they could be themselves in their friendships and expected friends to be available and supportive (intraclass correlation for this scale was .59; the Spearman-Brown correction was .74). Disclosure reflected the extent to which participants and their friends mutually shared both positive and negative emotional and interpersonal experiences, thoughts, and feelings (intraclass correlation was .73, Spearman-Brown Correction was .84). Closeness reflected the extent which participants described their closest friendship as connected, special, and irreplaceable (intraclass correlation was .72; the Spearman-Brown correction was .84). These three scales were summed to comprise a composite measure of Friendship Quality. Pearson correlations between Friendship Security, Disclosure and Closeness ranged from .64 to .77.

Couples Assessment Procedure. Between ages 20-21, participants and their partners (with whom they had been romantically involved for at least 4 months) completed a laboratory assessment of romantic functioning. A second assessment following the same protocol was collected when participants were between ages 26-28. As noted previously, there was partial overlap in participation in the two waves of data collection depending on participants' relationship status at each wave.

During the assessments, each partner was separately administered the Current Relationship Interview (CRI; Owens & Crowell, 1996), a measure of the attachment representation of the current romantic partner. Each partner also completed self-report

measures of relationship perceptions. Partners then jointly completed a videotaped observational procedure that consisted of two interaction tasks: the Markman-Cox procedure and the Ideal Couple Q-sort.

The Markman-Cox procedure (Cox, 1991) involves a discussion of a jointly-identified problem within the relationship. Participants and their partners were instructed to state their individual views on the problem and work together for ten minutes to identify a mutually satisfying solution. Following a brief cool-down period in which partners discussed areas of agreement in their relationship, they completed the Ideal Couple Q-Sort (Collins, Aguilar, Hennighausen, Hyson, Jimerson, Levy, Meyer, & Sesma, 1999). Each couple was given 45 cards, each of which described a potential feature or quality of an ideal couple (e.g., make sacrifices for each other, share the same political views, spend some time apart). Each couple was instructed to sort each card into one of three groups: “Most like an ideal couple”, “Least like an ideal couple”, or “Middle/Unsure.”

Relationship Perceptions. Each partner’s relationship satisfaction was assessed with the seven-item Relationship Assessment Scale (RAS; Hendrick, 1988). Cronbach’s alpha for the RAS was .86. The Emotional Tone Index (ETI; Berscheid, Snyder, & Omoto, 1989) measured the frequency of 12 positive and 15 negative emotions experienced in the relationship. Cronbach’s alpha was .87 for the positive items, and .86 for the negative items. The Subjective Closeness Index (SCI; Berscheid, Snyder, & Omoto, 1989) assessed perceptions of closeness to the romantic partner based on two seven-point items; higher scores reflected perceptions of greater relationship closeness. Cronbach’s alpha for the SCI in the current sample was .87.

In accordance with Treboux et al.'s (2004) measure of positive relationship feelings, a composite measure of positive feelings for each partner was constructed from these three scales. The composite for each partner reflected summed z-scores of self-reported satisfaction, subjective closeness, and ETI positive emotions subscore. Pearson correlations between SCI, RAS, and ETI positive scores ranged from .50 to .68.

Observed Dyadic Behavior. Seven trained observers rated the videotaped interactions on dyadic scales that assessed shared behaviors between partners. Affect expression scales reflected the extent to which partners mutually expressed Positive Affect, Negative Affect, Anger, and Hostility. A scale assessing Effective Conflict Resolution reflected the extent to which partners effectively worked together to reach a mutually satisfying solution to a relationship problem. Secure Base Process reflected the extent to which partners mutually and flexibly adopted caregiving and careseeking roles within the interactions. Raters also assigned an Overall Quality score for each relationship. High scores were assigned to relationships characterized by mutual trust, warmth, and sensitivity to each other's needs and wishes. Interrater reliabilities (intraclass correlations) for these scales ranged from .82 to .96 (Collins et al., 1999).

A separate group of four coders also rated couples' use of negative conflict strategies, including a five-point dyadic scale measuring Negative Reciprocity. Negative Reciprocity occurs when partners exchange negatively framed demands for change in the relationship or partner. Such exchanges involve mutual criticism and blame, and reflect high conflict in the interaction. Low scores were assigned when couples did not use negative reciprocity when engaging in conflict or when incidence of negative reciprocity

was low. High scores reflected high frequency and salience of negative reciprocity in couples' conflict discussions. Interrater reliability for negative reciprocity was .94.

Global Adjustment. At ages 19 and 26 all target participants were interviewed about their relationships, work, school, identity, goal-directedness, and general functioning. Trained raters coded each participant's global adjustment taking all of these domains under consideration. High scores were assigned to individuals who were functioning well in all areas, or where there were only minor problems in one domain. Low scores were assigned to individuals who were doing poorly in all areas, or where functioning was poor but there was some indication of help-seeking behaviors or a desire to make changes. Interrater reliability was .93.

Generalized Attachment Representation. The Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985; Main & Goldwyn, 1998) assessed participants' mental representation of their earlier attachment experiences. Classification on the AAI yields three general classifications intended to correspond to Ainsworth's Strange Situation classifications: Secure/autonomous, Dismissing, and Preoccupied. For the present study, the Dismissing and Preoccupied classifications were collapsed into a single Insecure group. The AAI was administered to target participants at age 19, and again at age 26. All interview transcripts were coded by raters who had completed reliability certification through the University of California at Berkeley.

Partner-Specific Attachment Representation. The Current Relationship Interview (CRI; Owens & Crowell, 1998) was developed as a representational assessment of specific romantic partners/relationships. The interview protocol parallels the structure of the AAI, and the coding systems yields analogous Secure, Dismissing, and Preoccupied

classifications. The CRI was administered separately to target participants and their romantic partners at the couples assessments. Transcripts were coded by raters who had completed training for the Adult Attachment Interview scoring procedure. Interrater reliability (Kappa) was .53 for the age 20-21 CRIs and .77 for the age 26-28 CRIs. As for the AAI, Dismissing and Preoccupied CRI classifications were collapsed into a single Insecure group.

AAI/CRI Configuration. Each target participant was assigned to one of four groups based on his or her configuration of generalized and partner-specific attachment representations: Insecure_{AAI}/Insecure_{CRI}, Insecure_{AAI}/Secure_{CRI}, Secure_{AAI}/Insecure_{CRI}, or Secure_{AAI}/Secure_{CRI}. These configurations were based on the CRI classification collected in the romantic relationship assessment and the AAI classification assigned nearest the time of the CRI assessment. Participants who completed the age 20-21 romantic relationship assessment were grouped based on their age 20-21 CRI classification and age 19 AAI classification. Participants in the 26-28 romantic relationships assessment were grouped based on their age 26-28 CRI and age 26 AAI. This selection procedure yielded 34 Insecure_{AAI}/Insecure_{CRI}, 23 Insecure_{AAI}/Secure_{CRI}, 29 Secure_{AAI}/Insecure_{CRI}, and 26 Secure_{AAI}/Secure_{CRI} participants.

Relationship Stability. Relationship stability was determined from the most recent assessment of all target participants, completed at age 28. During the age 28 Relationships Interview, participants indicated whether the relationship with the partner who participated in the age 20-21 and age 26-28 couples assessments had dissolved. Individuals whose relationships persisted to age 28 were scored 1, and individuals whose relationships dissolved by age 28 were scored zero.

Treatment of Missing Data

Percentages of cases missing data within predictor variables ranged from 1.8% (peer competence in Grade 6) to 11.6% (parenting at 24 months and partner self-report measures). These percentages were within the ranges at which imputation is generally recommended (personal communication, Manfred Van Dulmen). The *Preliis* multiple imputation procedure was used to impute values for missing data on predictor variables. The resulting means of measures including imputed data were not significantly different from means of measures with missing data.

Results

The present study had two overarching goals: to replicate differences in romantic functioning observed among AAI/CRI groups by Treboux et al. (2004) and to test a model of developmental antecedents of representational discordance. Study 1 compared the four AAI/CRI groups on measures of current romantic functioning that paralleled Treboux et al.'s (2004) analyses as closely as possible. Study 2 tested differences between AAI/CRI groups on individual developmental antecedents hypothesized to predict attachment representation configurations in adulthood. Study 3 tested the discriminant capacity of the set of romantic functioning measures from Study 1, the set of antecedents from Study 2, and the combined set of all predictors to distinguish discordant groups from their concordant counterparts. Finally, Study 4 tested whether AAI/CRI configuration groups differed in relationship stability at age 28.

Descriptive Statistics for AAI and CRI Classifications

In contrast to Treboux et al.'s (2004) sample, two-way AAI and CRI classifications were unrelated in the MLSRA sample ($K = .07, p = .46$). Table 1 reports frequencies for Secure, Dismissing, and Preoccupied classifications within each of the four AAI/CRI configuration groups. Among the insecure classifications on either the AAI or CRI, the majority were Dismissing (AAI = 90%, CRI = 63%) rather than Preoccupied (AAI = 9%, CRI = 37%). The most common AAI/CRI configurations when the three-way attachment classifications were considered were Secure_{AAI}/Dismissing_{CRI} ($n = 22$), Dismissing_{AAI}/Secure_{CRI} ($n = 21$), Dismissing_{AAI}/Dismissing_{CRI} ($n = 16$), and Dismissing_{AAI}/Preoccupied_{CRI} ($n = 14$). AAI/CRI configuration groups did not differ significantly on sex or marital status (see descriptive statistics in Table 1). The

Secure_{AAI}/Insecure_{CRI} group's relationships were slightly longer than other groups' relationships at the time of assessment, but group differences in relationship length were nonsignificant. Target participants' AAI/CRI configurations were unrelated to their partners' CRI classifications ($\chi^2 = 2.04, p = .56$) and to continuous measures of partners' CRI coherence scores ($F(1, 84) = 1.32, p = .27$).

Study 1: Replication of Previous Findings

Study 1 attempted to replicate the findings presented in Treboux et al. (2004) with data from an at-risk sample. Treboux et al. observed significant differences in functioning between AAI/CRI groups within three general domains: self-reported positive feelings about the relationship, self-reported relationship conflict, and observer-rated secure base behavior. Measures from the MLSRA dataset were chosen to match Treboux et al.'s measures as closely as possible both in construct and in method. Observer ratings of relationship conflict and conflict resolution were used in the present study because self-reported measures of relationship conflict were not available for the MLSRA sample.

Treboux et al. (2004) used effect-coded regression analyses to test differences in AAI/CRI groups. Effect coded regression is statistically similar to planned contrasts in ANOVA. In effect-coded regressions in which the contrast variable is the only predictor, F tests are equivalent to t values squared, and the beta coefficient in each regression equals the Pearson correlation between the contrast variable and the dependent measure. An advantage of using effect-coded regressions is that the contrast variable can be used in conjunction with additional continuous covariates, and yields easily interpretable measures of effect sizes (R^2). For ease of interpretation and comparison across studies, a series of effect coded regression analyses tested planned contrasts between AAI/CRI

groups on measures of romantic functioning. Each contrast between AAI/CRI configuration was coded as a separate variable such that cases classified as either of the two configurations of interest were coded either 1 or -1 and all others were treated as missing on that particular contrast variable. Descriptive statistics for romantic functioning measures are presented in Table 2, and zero-order correlations among between measures are presented in Table 3. Results of effect-coded regressions for each contrast appear in Table 4.

Secure_{AAI}/Secure_{CRI} vs. Insecure_{AAI}/Insecure_{CRI}. Effect-coded regression indicated that the Sec_{AAI}/Sec_{CRI} group reported significantly higher positive relationship feelings than the Ins_{AAI}/Ins_{CRI} group. Compared to the Ins_{AAI}/Ins_{CRI} group, the Sec_{AAI}/Sec_{CRI} group's couple interactions were rated significantly higher on secure base process and conflict resolution and lower on anger, hostility, negative affect, and negative reciprocity. The Sec_{AAI}/Sec_{CRI} group's relationships were also rated higher on overall quality than the Ins_{AAI}/Ins_{CRI} group's relationships. Variance explained by the contrast between the two groups ranged from 10% (for positive relationship feelings) to 36% (for conflict resolution). The groups did not differ on positive affect expression in the couple interactions.

Insecure_{AAI}/Insecure_{CRI} vs. Insecure_{AAI}/Secure_{CRI}. The Ins_{AAI}/Sec_{CRI} group exhibited significantly more optimal romantic functioning than the Ins_{AAI}/Ins_{CRI} group on all measures. The Ins_{AAI}/Sec_{CRI} group's interactions with their partners were rated as having more positive affect and more effective conflict resolution, and their relationships were rated as higher quality than the Ins_{AAI}/Ins_{CRI} group. The Ins_{AAI}/Sec_{CRI} group's interactions were also rated lower on dyadic negative affect, anger, hostility, and negative

reciprocity than the Ins_{AAI}/Ins_{CRI} group's interactions. Variance explained by the contrast between the two groups ranged from 7% (hostility) to 19% (conflict resolution).

Secure_{AAI}/Secure_{CRI} vs. Secure_{AAI}/Insecure_{CRI}. The Sec_{AAI}/Ins_{CRI} group functioned largely as the Sec_{AAI}/Sec_{CRI} group on measures of romantic functioning. The Sec_{AAI}/Ins_{CRI} group's interactions with their partners were rated as having significantly more dyadic negative reciprocity and marginally more anger than the Sec_{AAI}/Sec_{CRI} group's interactions. The groups did not differ on measures of positive relationship feelings, secure base process, conflict resolution, positive affect, negative affect, hostility, and overall quality.

Secure_{AAI}/Secure_{CRI} vs. Insecure_{AAI}/Secure_{CRI}. The Ins_{AAI}/Sec_{CRI} group's romantic functioning was remarkably similarly to the Sec_{AAI}/Sec_{CRI} group. The groups did not differ significantly on any measures of current romantic functioning. Most notably, the Ins_{AAI}/Sec_{CRI} group reported higher positive feelings and their interactions contained higher positive affect than the Sec_{AAI}/Sec_{CRI} group, although mean differences were not significant.

Insecure_{AAI}/Insecure_{CRI} vs. Secure_{AAI}/Insecure_{CRI}. The contrast between the Ins_{AAI}/Ins_{CRI} and Sec_{AAI}/Ins_{CRI} groups yielded mixed results. The two groups differed significantly on secure base process, conflict resolution, negative affect, hostility, and overall quality, with the Sec_{AAI}/Ins_{CRI} group functioning more optimally on each measure. The groups did not differ on measures of on negative reciprocity, positive affect, anger, and positive relationship feelings. Variance explained by the significant contrasts between the two groups ranged from 7% (negative affect) to 23% (conflict resolution).

Insecure_{AAI}/Secure_{CRI} vs. Secure_{AAI}/Insecure_{CRI}. Finally, two noteworthy differences were observed between the Ins_{AAI}/Ins_{CRI} and Sec_{AAI}/Ins_{CRI} groups. The Ins_{AAI}/Sec_{CRI} group's couples interactions were rated as significantly lower on negative reciprocity and marginally higher on positive affect than the Sec_{AAI}/Ins_{CRI} group's interactions. These findings suggest that the Ins_{AAI}/Sec_{CRI} group may have been functioning more optimally than the Sec_{AAI}/Ins_{CRI} group in certain areas despite their insecure representations of earlier experience.

Summary of Study 1. The present results successfully replicated differences in romantic functioning observed by Treboux et al. (2004), with some exceptions. Generally speaking, the Ins_{AAI}/Ins_{CRI} group exhibited the lowest functioning across measures while the Sec_{AAI}/Sec_{CRI} group exhibited optimal functioning. The Ins_{AAI}/Sec_{CRI} group reported higher positive relationship feelings than all other representational groups (though not significantly higher than the Sec_{AAI}/Sec_{CRI} group). Most notably, the Ins_{AAI}/Sec_{CRI} group did not differ from the Sec_{AAI}/Sec_{CRI} group on any measure of romantic functioning, and was also lower than the Sec_{AAI}/Ins_{CRI} group on use of negative reciprocity in conflict discussions. Analyses in Study 1 failed to replicate the differences between Sec_{AAI}/Ins_{CRI} and Sec_{AAI}/Sec_{CRI} observed by Treboux et al. (2004). The Sec_{AAI}/Ins_{CRI} group functioned largely as the Sec_{AAI}/Sec_{CRI} group did. The notable exception to this finding was that the use of negative reciprocity in conflict discussions in the Sec_{AAI}/Ins_{CRI} group's interactions was more similar to the Ins_{AAI}/Ins_{CRI} group than to Sec_{AAI}/Sec_{CRI} group. The Sec_{AAI}/Ins_{CRI} group also functioned more similarly to the Ins_{AAI}/Ins_{CRI} group on dyadic positive affect, anger, and positive relationship feelings. The overall pattern of results is

illustrated in Figure 1, which displays standardized means of scores on selective measures of concurrent romantic functioning organized by AAI/CRI group.

Study 2: Developmental Antecedents of Attachment Configurations

Study 2 tested a model of developmental factors contributing to representational configurations in early adulthood. Earlier experience with parents, peers, close friends, ego resilience in preschool, individual adjustment prior to the couples assessment, and features of the romantic partner were proposed to differentiate the developmental pathways of those who went on to form discordant representations from those with concordant representations. Descriptive statistics for developmental antecedents are presented in Table 5, and zero-order correlations among antecedent measures are presented in Table 6. Results of effect-coded regression contrasts appear in Table 7.

Secure_{AAI}/Secure_{CRI} vs Insecure_{AAI}/Insecure_{CRI}. As expected, the Sec_{AAI}/Sec_{CRI} group differed significantly from the Ins_{AAI}/Ins_{CRI} group on measures of developmental history as well as their romantic partners' positive relationship feelings. Compared to Ins_{AAI}/Ins_{CRI} individuals, the developmental histories of Sec_{AAI}/Sec_{CRI} individuals were marked by better overall parenting at 24 months, higher ego resilience at 54 months, higher peer competence across middle childhood, higher friendship quality in adolescence, and better global adjustment at the closest assessment preceding the couples assessment. Sec_{AAI}/Sec_{CRI} individuals' partners also reported more positive feelings about the relationship than the partners of Ins_{AAI}/Ins_{CRI} individuals. Variance explained by the contrasts between the two groups ranged from 10% (partner's positive feelings) to 36% (24 month parenting). The only antecedent measure on which groups did not differ was 12 month attachment classification.

Insecure_{AAI}/Insecure_{CRI} vs. Insecure_{AAI}/Secure_{CRI}. Effect-coded regressions also differentiated the *Ins_{AAI}/Ins_{CRI}* group from the *Ins_{AAI}/Sec_{CRI}* group on several antecedent measures. Compared to the *Ins_{AAI}/Ins_{CRI}* group, the *Ins_{AAI}/Sec_{CRI}* group had experienced significantly higher quality parenting at 24 months, friendship quality at age 16, and their romantic partners reported higher positive feelings about the relationship. The two groups did not differ significantly on 12 month attachment classification, adjustment, or ego resilience at 54 months. Variance explained by significant group contrasts was 12% for 24 month parenting, friendship quality, and partner's positive feelings.

Secure_{AAI}/Secure_{CRI} vs. Secure_{AAI}/Insecure_{CRI}. Contrasts between the *Sec_{AAI}/Sec_{CRI}* and *Sec_{AAI}/Ins_{CRI}* groups indicated that the *Sec_{AAI}/Sec_{CRI}* group experienced significantly higher quality parenting at 24 months, displayed better ego resilience at 54 months, and were better adjusted preceding the couple's assessment. The *Sec_{AAI}/Sec_{CRI}* group also had higher peer competence in middle childhood than the *Sec_{AAI}/Ins_{CRI}* group, although this difference was only marginally significant. Variance explained by the significant group contrasts ranged from 8% (global adjustment) to 11% (54 month ego resilience). The two groups did not differ on 12 month attachment classifications, friendship quality, or partners' reports of positive feelings.

Secure_{AAI}/Secure_{CRI} vs. Insecure_{AAI}/Secure_{CRI}. Although the *Sec_{AAI}/Sec_{CRI}* and *Ins_{AAI}/Sec_{CRI}* groups did not differ in current romantic functioning in Study 1, the groups differed on some measures of developmental history. Compared to the *Ins_{AAI}/Sec_{CRI}* group, the *Sec_{AAI}/Sec_{CRI}* group had experienced significantly higher quality parenting at 24 months, had higher peer competence in middle childhood, and were better adjusted prior to the couples assessments. Variance explained by significant contrasts ranged from

10% (24 month parenting) to 12% (peer competence and adjustment). Notably, the groups did not differ on 12 month attachment classification, ego resilience at 54 months, friendship quality in adolescence, or partner's reports of positive feelings.

Insecure_{AAI}/Insecure_{CRI} vs. Secure_{AAI}/Insecure_{CRI}. Compared to the *Ins_{AAI}/Ins_{CRI}* group, the *Sec_{AAI}/Ins_{CRI}* group experienced significantly higher quality parenting at 24 months, higher friendship quality in adolescence, and their partners reported higher positive relationship feelings. The contrast explained 8% of variance in 24 month parenting, friendship quality, and partners' positive feelings. The groups did not differ on measures of 12 month attachment, ego resilience, peer competence, and adjustment prior to the couple's assessment.

Secure_{AAI}/Insecure_{CRI} vs. Insecure_{AAI}/Secure_{CRI}. No differences were observed between the *Ins_{AAI}/Sec_{CRI}* and *Sec_{AAI}/Ins_{CRI}* groups on measures of developmental history. The only contrast that approached significance was for ego resilience at 54 months, in which the *Ins_{AAI}/Sec_{CRI}* group mean was higher than the *Sec_{AAI}/Ins_{CRI}* group mean.

Summary of Study 2. Results indicated differences in developmental history and partner characteristics among the four AAI/CRI groups. The overall pattern of results is displayed in Figure 2, which illustrates group mean differences on standardized antecedent measures. As expected, *Sec_{AAI}/Sec_{CRI}* individuals' developmental histories were marked by optimal functioning in early parenting, ego resilience, peer competence, friendship quality, and adjustment. Their partners also reported high positive relationship feelings. By contrast, the *Ins_{AAI}/Ins_{CRI}* group displayed the least optimal pattern of functioning on these domains. Taken together, these findings serve as validation that the

set of developmental predictors was consistently related to differences in attachment security at its most extreme comparison (the two concordant groups).

Although the Sec_{AAI}/Sec_{CRI} and Ins_{AAI}/Sec_{CRI} groups did not differ in their romantic functioning, differences in developmental history emerged in parenting, peer competence, and adjustment. The Ins_{AAI}/Sec_{CRI} group also differed from the Ins_{AAI}/Ins_{CRI} group on parenting, friendship, and partners' reports of positive relationship feelings. Although the Sec_{AAI}/Ins_{CRI} functioned similarly to the Sec_{AAI}/Sec_{CRI} group on measures of romantic functioning, their developmental histories were marked by lower quality parenting and lower ego resilience and poorer adjustment prior to the couples assessments.

Most notably, no group differences were observed for 12 month attachment scores in any of the group contrasts. By contrast, parenting quality at 24 months significantly differentiated groups in five of the six contrasts (only Ins_{AAI}/Sec_{CRI} and Sec_{AAI}/Ins_{CRI} groups did not differ) even when controlling for 12 month attachment scores. These findings suggest that parenting experiences in addition to the attachment system contribute to representational configuration in adulthood over and above the effect of early parent-child attachment.

Study 3: Predictors of Representational Discordance

Studies 1 and 2 established key differences between AAI/CRI groups on individual measures of developmental antecedents and concurrent romantic functioning. In Study 3, discriminant function analysis (DFA) was used to test the effects of each predictor set for differentiating the discordant representation groups from their concordant counterparts. DFA assesses the unique contribution of each predictor variable

while simultaneously controlling for other predictors in the model. The overall model fit is indicated by a measure of effect size (squared canonical correlation), Wilks' Lambda for the full model (smaller is better) and overall correct classification percentage. The relative contribution of each predictor is indicated by its unique Wilks' Lambda value and corresponding *F* test. Three sets of DFAs were conducted. The first set compared each discordant group to its concordant counterpart on the developmental antecedent predictor set. The second set compared groups on the concurrent romantic functioning set. The third set tested the joint effects of the antecedent and concurrent sets on membership in the discordant groups.

Developmental Antecedents

Insecure_{AAI}/Insecure_{CRI} vs. Insecure_{AAI}/Secure_{CRI}. Results of the first DFA are presented in Table 8. In this model, all of the predictors from Study 2 were entered simultaneously. Comparison of the variable level Wilks' Lambdas indicated that friendship quality was the strongest predictor of membership in either the *Ins_{AAI}/Ins_{CRI}* or *Ins_{AAI}/Sec_{CRI}* group, followed by 24-month parenting quality and partner positive relationship feelings. Ego resilience only marginally discriminated the two groups. Peer competence, global adjustment, and 12 month attachment did not significantly differentiate the two groups. The model correctly classified 75.4% of cases with a moderate effect size (Wilks' Lambda = .72, squared canonical correlation = .28, $p < .05$).

Secure_{AAI}/Insecure_{CRI} vs. Secure_{AAI}/Secure_{CRI}. The same predictors were used in a second DFA to test differences between the *Sec_{AAI}/Ins_{CRI}* and *Sec_{AAI}/Sec_{CRI}* groups (Table 9). Ego resilience at 54 months, parenting at 24 months, and adjustment prior to the couple's assessment significantly predicted group membership. Ego resilience was

the strongest predictor in the model. Peer competence across middle childhood was only marginally significant in the model. Adolescent friendship quality, partner reports of positive feelings, and 12 month attachment were not significant. The model correctly classified 69.1% of cases with a small effect size for the full model (Wilks' Lambda = .80, squared canonical correlation = .20, $p = .15$).

Current Romantic Functioning

Insecure_{AAI}/Insecure_{CRI} vs. Insecure_{AAI}/Secure_{CRI}. Results are presented in Table 10. All of the predictors from Study 1 were entered simultaneously. As in Study 1, all measures of romantic functioning significantly discriminated between the two groups. Effective conflict resolution, observed positive affect, relationship quality, and negative reciprocity were the strongest predictors. The model correctly classified 82.5% of cases with a moderate effect size (Wilks' Lambda = .62, squared canonical correlation = .38, $p < .01$).

Secure_{AAI}/Insecure_{CRI} vs. Secure_{AAI}/Secure_{CRI}. Results are presented in Table 11. The only significant predictor of group membership was negative reciprocity. The model correctly classified 72.7% of cases, with a small effect size for the full model (Wilks' Lambda = .81, squared canonical correlation = .19, $p = .35$).

Developmental Antecedents and Current Romantic Functioning

Finally, two DFAs were performed to assess the strength of models including both earlier and concurrent predictors of representational discordance. In each model, all predictors from Study 1 and Study 2 were entered simultaneously, thus testing the unique effects of each predictor controlling for all others. The purpose of these models was two-fold. First, these models tested whether measures of earlier functioning would remain

significant even when concurrent measures of romantic functioning were accounted for. Second, they tested whether the full model accounted for group membership better than either the antecedent or concurrent functioning sets alone.

For the model predicting group membership in either the Ins_{AAI}/Ins_{CRI} or Ins_{AAI}/Sec_{CRI} group, only ego resilience, peer competence, and adjustment were not significant predictors of later group membership (Table 12). With both antecedent and concurrent predictors in the model, the correct classification percentage increased to 89.5%, and the effect size increased to .56 (Wilks' Lambda = .44, $p < .001$). For the model predicting group membership in either the Sec_{AAI}/Sec_{CRI} or Sec_{AAI}/Ins_{CRI} group, ego resilience at 54 months, parenting at 24 months, adjustment, and negative reciprocity significantly discriminated the two groups (Table 13). The correct classification increased to 76.4%, and the effect size increased to .39 (Wilks' Lambda = .61, $p < .15$). Together these models demonstrated that measures of both developmental history and current romantic functioning discriminated between representational configurations better than either predictor set alone.

The two models also demonstrated that the significant contributions of early predictors emerged even when the contribution of concurrent romantic functioning measures were taken into account. In the model predicting membership in either the Ins_{AAI}/Ins_{CRI} or Ins_{AAI}/Sec_{CRI} group, parenting quality at 24 months and friendship quality at age 16 discriminated between the two groups better than several of the romantic functioning measures. In the model predicting membership in either the Sec_{AAI}/Sec_{CRI} or Sec_{AAI}/Ins_{CRI} group, ego resilience at 54 months and parenting quality at 24 months were

the two best discriminators even when more proximal measures of romantic functioning were included.

Study 4: Relationship Stability at Age 28

A chi-square analysis tested whether AAI/CRI configuration was related to relationship dissolution by age 28. Results failed to replicate Treboux et al.'s (2004) finding that Sec_{AAI}/Ins_{CRI} individuals' relationships dissolved at a significantly higher rate than any of the other groups, although dissolution rates followed similar trends. Fifty percent of Sec_{AAI}/Ins_{CRI} individuals' relationships dissolved whereas only 29.2% of Sec_{AAI}/Sec_{CRI} relationships dissolved by age 28. Fifty percent of Ins_{AAI}/Ins_{CRI} individuals' relationships dissolved, while the dissolution rate was highest among the Ins_{AAI}/Sec_{CRI} group (63.6%).

Results Summary

Overall, results revealed interesting patterns regarding the current romantic functioning and developmental histories of each group. Figure 3 portrays standardized means on antecedent measures and observed romantic relationship quality for the four AAI/CRI groups. The figure highlights the points of divergence between the discordant groups and their concordant counterparts across development. Individuals in the Ins_{AAI}/Ins_{CRI} group had earlier histories marked by poorer individual functioning, poorer quality relationships with parents and peers, as well as lower functioning with the current romantic partner. The Sec_{AAI}/Sec_{CRI} group, by contrast, had developmental histories marked by high individual functioning, high quality relationships with parents and peers, as well as optimal functioning in their current romantic relationships. The Ins_{AAI}/Sec_{CRI} group was similar to the Ins_{AAI}/Ins_{CRI} group on measures of individual functioning, but

experienced higher quality relationships in earlier development than the Ins_{AAI}/Ins_{CRI} group. They also functioned similarly to those with secure generalized attachment representations in their current romantic relationships. The Sec_{AAI}/Ins_{CRI} group displayed ego resilience similar to the $Insecure_{AAI}/Insecure_{CRI}$ group. Despite lower quality early parenting, the Sec_{AAI}/Ins_{CRI} group functioned similarly to the Sec_{AAI}/Sec_{CRI} group later in development and with their current romantic partners. One of the few “costs” associated with the insecure CRI for this group was a higher percentage of relationship dissolution by age 28 compared to the $Secure_{AAI}/Secure_{CRI}$ group.

Discussion

The present findings provide new evidence about the developmental histories of four groups with differing configurations of attachment representations. Besides replicating Treboux et al.'s (2004) finding that romantic functioning differs among the four groups, results revealed that concordant-secure and concordant-insecure groups on the Adult Attachment Interview and the Close Relationships Interview also diverged on measures of individual adaptation and functioning in multiple relational contexts. Among individuals with insecure representations of attachment history, those with secure romantic representations displayed significantly better romantic functioning and had developmental histories marked by higher quality earlier relationships. Among individuals with secure representations of attachment history, those with insecure romantic representations functioned largely as those with secure romantic representations did. Their developmental histories, however, were marked by poorer adaptation with respect to ego resilience in preschool and adjustment in late adolescence/early adulthood. The complex patterns of divergence between the discordant groups and their concordant counterparts revealed potential clues about the underlying developmental processes involved in pathways toward representational discordance in adulthood.

The overall pattern of functioning for those with insecure histories but secure romantic representations (Ins_{AAI}/Sec_{CRI}) was more similar to the concordant insecure (Ins_{AAI}/Ins_{CRI}) group in individual functioning (ego resilience, peer competence, and adjustment), but more like the concordant secure (Sec_{AAI}/Sec_{CRI}) group in relational functioning (early parenting quality, adolescent friendship quality, and adjustment). Of particular note is that the Ins_{AAI}/Sec_{CRI} group had experienced significantly higher quality

early parenting than Ins_{AAI}/Ins_{CRI} individuals but significantly lower quality parenting than the Sec_{AAI}/Sec_{CRI} group. If the Ins_{AAI}/Sec_{CRI} group had differed from Ins_{AAI}/Ins_{CRI} individuals on all antecedent measures, one might suspect error in measurement of the generalized attachment representation. The more complex pattern of divergence observed suggests instead that they had experienced domain-specific developmental gains in each relational context (both with parents and friends) relative to the Ins_{AAI}/Ins_{CRI} group that allowed them to capitalize on the opportunity to form a secure partnership in adulthood despite their relatively poorer individual functioning across time.

The Sec_{AAI}/Ins_{CRI} group exhibited a similarly complex pattern of divergence from the two concordant groups. They functioned similarly to the Sec_{AAI}/Sec_{CRI} group in relational contexts, but similarly to the Ins_{AAI}/Ins_{CRI} group in individual adaptation. The Sec_{AAI}/Ins_{CRI} group had experienced significantly higher quality early parenting than the Ins_{AAI}/Ins_{CRI} group but lower quality parenting than the Sec_{AAI}/Sec_{CRI} group. Again, evidence that the Sec_{AAI}/Ins_{CRI} group's functioning was significantly poorer in all areas than the Sec_{AAI}/Sec_{CRI} group might have suggested error in the measurement of the generalized representation. Instead, it appears that features of early parenting may have compromised individual functioning in certain areas while relational competence was less affected.

Perhaps Sec_{AAI}/Ins_{CRI} individuals understand how to participate in secure relationships but lower individual functioning compromised their partner selection in early adulthood. Thus, insecure partner representations may have formed in response to a poorly selected partner rather than as a direct outcome of poorer relational functioning in earlier development. This possibility is bolstered by evidence that this group's insecure

partner representations were accompanied by a mixture of relationship behaviors evoking security (good secure base processes, high relationship quality) as well as behaviors evoking insecurity (relationship distress evidenced by negative conflict engagement strategies).

The developmental patterns of the two discordant groups suggest a need for closer examination of how specific mechanisms in early parenting prepare children to function optimally in distinct domains across the lifespan. Compared to the Ins_{AAI}/Ins_{CRI} group, the Ins_{AAI}/Sec_{CRI} group may have benefited from relatively more optimal aspects of parenting linked to later functioning in relational domains (e.g., emotional support and smooth dyadic coordination of shared experiences). Compared to the Sec_{AAI}/Sec_{CRI} group, the Sec_{AAI}/Ins_{CRI} group may have experienced parenting that was relatively compromised with respect to aspects that promote later individual functioning (e.g., parents' scaffolding of problem solving skills, structure and limit setting). Future research should examine the contributions of such extra-attachment parenting behaviors to attachment functioning in later relationships.

Cumulative Developmental Organization of Attachment Representations

The present study directly addressed one of the central issues in developmental psychology: the roles of early and later experience in determining developmental outcomes. Findings highlighted the special role of early experience as well as contributions of later experience in shaping adult attachment representations. Early parenting quality at 24 months successfully discriminated among representation groups in all but the contrast between the two discordant groups (Ins_{AAI}/Sec_{CRI} vs. Sec_{AAI}/Ins_{CRI}). Early parenting experience retained its developmental influence even as other experience

contributed later in development. The robustness of early parenting in relation to adult outcomes emphasizes the special role of the earliest close relationship in calibrating developmental organization of later relationships. More proximal experiences were also salient organizers of attachment representations in adulthood. Adolescent friendship quality and global adjustment significantly predicted adult representation configurations even when models included measures of earlier experience. Thus, it appears that cumulative developmental history – including the joint contributions of both earlier and later experience – organizes attachment representations in adulthood. As Sroufe et al. (in preparation) asserted, early experience is not erased but incorporated into increasingly complex organization across development.

Evidence for the cumulative effects of developmental history on adult attachment representations also suggests that multiple opportunities for divergence from continuous pathways of security or insecurity exist across the lifespan. Individuals with secure representations of early relationships but insecure romantic representations may veer from the secure-concordant pathway as they encounter relative difficulties with individual functioning in childhood and adolescence. Conversely, new relational contexts provide opportunities to veer from the insecure-concordant pathway and form secure relationships with new partners despite insecure representations of early relationships. Such intervening experiences may prepare individuals to capitalize on opportunities for secure partnerships later in life. This is especially salient for individuals with histories of substantial early risk (well-represented in the MLSPC sample) for whom subsequent relationships may serve as key turning processes. The present findings frame potential

opportunities for intervention targeting both individual and relational functioning as a means of promoting developmental deflections toward better outcomes.

Implications for Romantic Attachment Research: Revisiting the Prototype Hypothesis

The present study contributed to accumulating evidence of lawful continuity and change in the attachment system across the lifespan. The prevalence of individuals with discordant adult representations in this sample is in accordance with previous observations of attachment discontinuity (Owens et al., 1995; Sampson, 2004; Treboux et al., 2004). Lack of continuity of security across relationships is not attributable to measurement error or chance, but rather to lawful underlying developmental processes. Thus, these findings support more recent probabilistic formulations of the prototype hypothesis (Roisman et al., 2005). The present study provided robust evidence that attachment functioning in adulthood is multiply and probabilistically determined. Attachment representations in adulthood emerge from probabilistic linkages across multiple domains and contexts. Organization of romantic attachment functioning involves complex developmental processes across the lifespan.

Strengths and Limitations

The foremost strength of this study is its prospective approach to the study of attachment representational structure in adulthood. Nonetheless, findings should be considered in conjunction with a number of limitations. Analyses would benefit from the ability to model the romantic partner's contribution to the target participant's romantic attachment representation with greater specificity. Unfortunately, measures of the partners' generalized attachment representations were not collected. Observed romantic behaviors were coded at the dyad rather than individual level. Individual-level coding for

behaviors in the couple assessments is currently under way; controlling for the partners' behavioral contributions will illuminate the role of the target participants' representational configuration in dyadic functioning.

Another strength of the current study is replication of Treboux et al's (2004) findings with an at-risk sample. The generalizability of new findings about developmental precursors of attachment representations may be limited, however; the extent to which those processes operate under circumstances of comparatively less risk remains unclear. Replication of the current findings in a middle-class sample would bolster evidence that intervening experiences link earlier parenting with later attachment representations regardless of early risk status. A third limitation of the present investigation is the relatively small available sample. However, given that this is the single existing data set with which these questions can be addressed, these analyses provide valuable clues that should be substantiated further when larger data sets include the necessary variables. Given that normal distributions were observed on antecedent measures, it is unlikely that findings were a function of outliers in a small sample.

Future Research on the Organization of Romantic Behavior

The present study also illuminates a more recent question in developmental research on the organization of romantic attachment. The question of different roles of generalized and partner-specific representations in guiding romantic behavior has been framed as either a difference in strength of influence (which representation prevails?), domain-specificity (one representation guides behavior, the other affects relationship perceptions), or activation (generalized representations prevail under conditions of stress). Like many dichotomous debates in psychology (e.g., nature vs. nurture, early vs.

later, parents vs. peers), this problem is more useful when framed as a process question: how do the two representations work in concert, and how do they emerge from earlier developmental adaptations? The present findings cast this question in new light by providing evidence of developmental transactions promoting particular configurations of attachment representations, and placing representation configurations in the context of both earlier and concurrent adaptations. These findings suggest that the generalized and partner-specific representations work in concert to organize romantic functioning, building upon the basis of previous developmental capacities. Future work in this area will benefit from a more process-oriented approach.

References

- Ainsworth, M. D. S., Blehar, M., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the Strange Situation*. Hillsdale, NJ: Erlbaum.
- Arend, R., Gove, F. L., & Sroufe, L. A. (1979). Continuity of individual adaptation from infancy to kindergarten: A predictive study of ego-resiliency and curiosity in preschoolers. *Child Development, 50*, 950-959.
- Berscheid, E., Snyder, M., & Omoto, A. M. (1989). The Relationship Closeness Inventory: Assessing the closeness of interpersonal relationships. *Journal of Personality and Social Psychology, 57*, 792-807.
- Block, J. & Block, J. H. (1973). Ego development and the provenance of thought: A longitudinal study of ego and cognitive development in young children. University of California, Berkeley.
- Bouthillier, D., Julien, D., Dube, M., Belanger, I., & Hemelin, M. (2002). Predictive validity of adult attachment measures in relation to emotion regulation behaviors in marital interactions. *Journal of Adult Development, 9*, 291-305.
- Bowlby, J. (1969/1982). *Attachment and Loss: Attachment* (Vol. 1). New York: Basic Books.
- Bowlby, J. (1973). *Separation: Anxiety and Anger* (Vol. 2). New York: Basic Books.
- Carlivati, J. (2006). *Clarifying Adolescent and Adult Attachment: Construct Validation and Establishment of Associations between Two Relationship Representations*. Unpublished doctoral dissertation, University of Minnesota.

- Carlivati, J., & Collins, W. A. (2007). Adolescent attachment representations and development in a risk sample. In O. Mayseless & M. Scharf (Eds.), *New Directions for Child and Adolescent Development: Attachment in Adolescence: Reflections and New Angles*, 117, 91-106.
- Cohn, D., Silver, D., Cowan, P., Cowan, C., & Pearson, J. (1992). Working models of childhood attachment and couples' relationships. *Journal of Family Issues*, 13, 432–449.
- Collins, W. A., Aguilar, B., Hennighausen, K., Hyson, D., Jimerson, S., Levy, A., Meyer, S., & Sesma, A. (1999). *Scales and coding manual for observed interactions in romantic relationships*. Unpublished manuscript, University of Minnesota, Minneapolis, MN.
- Collins, W. A., Hennighausen, K. C., Schmit, D. T., & Sroufe, L. A. (1997). Developmental precursors of romantic relationships: A longitudinal analysis. *New Directions for Child Development*, 78, 69-84.
- Collins, W. A., & van Dulmen, M. H. M. (2006). "The course of true love(s)...": Origins and pathways in the development of romantic relationships. In A. Booth & A. Crouter (Eds.), *Romance and sex in adolescence and emerging adulthood: Risks and opportunities* (pp. 63-86). Mahwah, NJ: Erlbaum.
- Connolly, J., Furman, W., & Konarski, R. (2000). The role of peers in the emergence of heterosexual romantic relationships in adolescence. *Child Development*, 71, 1395–1408.
- Cox, M. (1991). Marital and parent-child relationships study. Unpublished manuscript, University of North Carolina, Chapel Hill, NC.

- Creasey, G. (2002). Associations between working models of attachment and conflict management behavior in romantic couples. *Journal of Counseling Psychology, 49*, 365–375.
- Creasey, G., & Ladd, A. (2005). Generalized and specific attachment representations: Unique and interactive roles in predicting conflict behaviors in close relationships. *Personality and Social Psychology Bulletin, 31*(8), 1026-1038.
- Crowell, J. A., & Owens, G. (1996). *Current Relationship Interview and scoring system*. Unpublished manuscript, State University of New York at Stony Brook.
- Crowell, J. A., Treboux, D., & Waters, E. (2002). Stability of attachment representations: The transition to marriage. *Developmental Psychology, 38*, 467–479.
- Crowell, J. A., & Waters, E. (2005). Attachment representations, secure-base behavior, and the evolution of adult relationships. In K. E. Grossman, K. Grossman, & E. Waters (Eds.), *Attachment from Infancy To Adulthood: The Major Longitudinal Studies* (pp. 223-244). New York, NY: Guilford.
- Davila, J., & Cobb, R. J. (2003). Predicting change in self-reported and interviewer-assessed adult attachment: Tests of the individual difference and life stress models of attachment change. *Personality and Social Psychology Bulletin, 29*(7), 859-870.
- Elicker, J., Englund, M., & Sroufe, L. A. (1992). Predicting peer competence and peer relationships in childhood from early parent-child relationships. In R. Parke & G. Ladd (Eds.), *Family-Peer Relationships: Mode of Linkage* (pp. 77-106). Hilldale, NJ: Erlbaum.

- Furman, W. (1999). Friends and lovers: The role of peer relationships in adolescent romantic relationships. In W. A. Collins & B. Laursen (Eds.), *Relationships as developmental contexts: Minnesota symposia on child development*, 30, 133-154.
- Furman, W., Simon, V. A., Shaffer, L., & Bouchey, H. A. (2002). Adolescents' working models and styles for relationships with parents, friends, and romantic partners. *Child Development*, 73(1), 241-255.
- George, C., Kaplan, N., & Main, M. (1985). *An adult attachment interview: Interview protocol*. Unpublished manuscript, University of California at Berkeley.
- Grossman, K. E., Grossman, K., & Kindler, H. (2005). Early care and the roots of attachment and partnership representations. In K. E. Grossman, K. Grossman, & E. Waters (Eds.), *Attachment from Infancy To Adulthood: The Major Longitudinal Studies* (pp. 223-244). New York, NY: Guilford.
- Grossman, K. E., Grossman, K., & Waters, E. (2005). *Attachment from Infancy To Adulthood: The Major Longitudinal Studies*. New York, NY: Guilford.
- Hartup, W. W. (1996). The company they keep: Friendships and their developmental significance. *Child Development*, 67, 1-13.
- Haydon, K. C., Salvatore, J. E., & Collins, W. A. (2008). *Distinctive pathways toward negative conflict resolution strategies in early adult couples*. In M. J. Zimmer-Gembeck (Chair), *The Emotion in the Social and the Social in the Emotional: Unifying Emotional and Social Worlds Across Age and Domain*. Poster symposium conducted at the biennial meeting of the Society for Research on Adolescence, Chicago, IL.

- Hendrick, S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and the Family*, 50, 93-98.
- Kobak, R. R., & Hazan, C. (1991). Attachment in marriage: Effects of security and accuracy of working models. *Journal of Personality and Social Psychology*, 60, 861-869.
- Kobak, R. R., & Sceery, A. (1988). Attachment in late adolescence: Working models, affect regulation, and representations of self and others. *Child Development*, 59(1), 135-146.
- Main, M., & Goldwyn, R. (1998). *Adult attachment scoring and classification systems: Version 6.2*. Unpublished manuscript, University of California at Berkeley.
- Overall, N. C., Fletcher, G. J. O., & Friesen, M. D. (2003). Mapping the intimate relationship mind: Comparisons between three models of attachment representations. *Personality and Social Psychology Bulletin*, 29, 1479-1493.
- Owens, G., Crowell, J., Pan, H., Treboux, D., O'Connor, E., & Waters, E. (1995). The prototype hypothesis and the origins of attachment working models: Adult relationships with parents and romantic partners. In E. Waters, B. E. Vaughn, G. Posada, & K. Kondo-Ikemura (Eds.), *Caregiving, cultural, and cognitive perspectives on secure-base behavior and working models: New growing points of attachment theory and research* (Vol. 60, pp. 216–233). Chicago: University of Chicago Press.

- Paley, B., Cox, M., & Burchinal, M. R., & Payne, C. C. (1999). Attachment and marital functioning, comparison of spouses with continuous-secure, earned secure, dismissing and preoccupied attachment. *Journal of Family Psychology, 13*, 580–597.
- Posada, G. Everett Waters, E. Judith A. Crowell, J. A., and Keng-Ling Lay, K. L. (1995). Is it easier to use a secure mother as a secure base? Attachment Q-Sort correlates of the Adult Attachment Interview. *Monographs of the Society for Research in Child Development, 60*, No. 2/3, Caregiving, Cultural, and Cognitive Perspectives on Secure-Base Behavior and Working Models: New Growing Points of Attachment Theory and Research (1995), pp. 133-145.
- Powers, S. I., Pietromonaco, P., Gunlicks, M., & Sayer, A. (2006). Dating couples' attachment styles and patterns of cortisol reactivity and recovery in response to a relationship conflict. *Journal of Personality and Social Psychology, 90*(4), 613–628.
- Roisman, G. I. (2007). The psychophysiology of adult attachment relationships: Autonomic reactivity in marital and premarital interactions. *Developmental Psychology, 43*(1), 39-53.
- 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 and Human Development, 7*(2), 105-121.

- Roisman, G. I., Madsen, S. D., Hennighausen, K. H., Sroufe, L. A., & Collins, W. A. (2001). The coherence of dyadic behavior across parent-child and romantic relationships as mediated by the internalized representation of experience. *Attachment and Human Development, 3*(2), 156-172.
- Sampson, M. C. (2004). Continuity and change in patterns of attachment between infancy, adolescence, and early adulthood in a high risk sample. Unpublished doctoral dissertation, University of Minnesota.
- Simpson, J. A., Collins, W. A., Tran, S., & Haydon, K. C. (2007). Attachment and the experience and expression of emotions in romantic relationships: A developmental perspective. *Journal of Personality and Social Psychology, 92*, 355-367.
- Simpson, J. A., 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.
- 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.
- Spangler, G., & Zimmerman, P. (1999). Attachment representation and emotion regulation in adolescents: A psychobiological perspective on internal working models. *Attachment & Human Development, 1*(3), 270-290.
- Sroufe, L. A., Coffino, B., & Carlson, E. A. (2008) *Conceptualizing the role of early experience*. Manuscript submitted for publication.

- 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: Guilford Press.
- Treboux, D., Crowell, J. A., & Waters, E. (2004). When “new” meets “old”: Configurations of adult attachment representations and their implications for marital functioning. *Developmental Psychology, 40*(2), 295-314.
- van IJzendoorn, M., & Bakermans-Kranenburg, M. (1996). Attachment representations in mothers, fathers, adolescents, and clinical groups: A meta-analytic search for normative data. *Journal of Consulting and Clinical Psychology, 64*, 8–21.
- Wampler, K. S., Shi, L., Nelson, B. S., & Kimball, T. G. (2003). The Adult Attachment Interview and observed couple interaction: Implications for an intergenerational perspective on couple therapy. *Family Process, 4* (4), 497–515.
- Zimmermann, P. (2004). Attachment representation and characteristics of friendship relations during adolescence. *Journal of Experimental Child Psychology, 88*(1), 83-101.

Table 1. Subclassification and Demographic Frequencies for AAI/CRI Groups

AAI/CRI Group (3-way)	AAI/CRI Group (2-way)				Total
	Ins _{AAI} /Ins _{CRI}	Ins _{AAI} /Sec _{CRI}	Sec _{AAI} /Ins _{CRI}	Sec _{AAI} /Sec _{CRI}	
D/D	16				
D/P	14				
P/D	2				
P/P	2				
D/S		21			
P/S		2			
S/D			22		
S/P			7		
S/S				26	
Total	34	23	29	26	
Percent Male	52.9	52.2	62.1	42.0	52.7
Percent Married	9.1	21.7	17.2	29.2	18.3
Mean Rel. Length (SD)	32.9 (24.4)	34.6 (28.5)	43.3 (30.3)	30.3 (22.4)	35.4 (26.7)

Notes. D refers to Insecure-Dismissing on either the AAI or CRI. P refers to Insecure-Preoccupied on either the AAI or CRI. S refers to Secure on either the AAI or CRI. Relationship length is measured in months.

Table 2. Descriptive Statistics by AAI/CRI Group for Current Romantic Functioning

Variable	Ins _{AAI} /Ins _{CRI}		Ins _{AAI} /Sec _{CRI}		Sec _{AAI} /Ins _{CRI}		Sec _{AAI} /Sec _{CRI}		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Positive Feelings	16.98	2.73	18.81	1.81	17.98	1.76	18.68	2.37	18.01	2.34
RR Secure Base	2.50	.90	3.04	.98	3.14	.92	3.23	.91	2.95	.96
RR Neg. Reciprocity	2.03	1.09	1.30	.56	1.76	.83	1.31	.55	1.64	.87
RR Conflict Res.	3.21	1.15	4.39	1.34	4.52	1.27	4.96	1.22	4.20	1.40
RR Positive Affect	2.68	.88	3.52	1.08	3.00	.93	3.15	1.05	3.04	1.01
RR Negative Affect	2.32	1.20	1.65	.57	1.76	.91	1.54	.76	1.86	.97
RR Anger	2.32	1.22	1.70	.76	1.79	1.05	1.38	.64	1.84	1.03
RR Hostility	2.94	1.86	2.04	1.07	1.90	1.23	1.62	.90	2.18	1.45
RR Quality	3.59	1.50	4.74	1.32	4.93	1.28	5.15	1.29	4.54	1.49

Table 3. Zero-order Correlations Between Current Romantic Functioning Measures

	1	2	3	4	5	6	7	8	9	10	11
1. AAI Coherence	-										
2. CRI Coherence	.27**	-									
3. Subject Positive Feelings	.19*	.25**	-								
4. Secure Base Process	.29**	.23*	.35***	-							
5. Negative Reciprocity	-.17 [†]	-.29**	-.35***	-.49***	-						
6. Conflict Resolution	.42***	.34***	.26**	.81***	-.45***	-					
7. Positive Affect	.10	.31**	.26**	.63***	-.41***	.54***	-				
8. Negative Affect	-.27**	-.23*	-.46***	-.68***	.65***	-.64***	-.47***	-			
9. Anger	-.24*	-.20*	-.32**	-.62***	.66***	-.60***	-.39***	.78***	-		
10. Hostility	-.30**	-.20*	-.42***	-.71***	.63***	-.67***	-.51***	.84***	.78***	-	
12. Quality	.39***	.25**	.35***	.84***	-.51***	.86***	.60***	-.71***	-.70***	-.76***	-

Notes. [†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 4. Effect-coded Regression Contrasts for Current Romantic Functioning

Variable	Sec _{AAI} /Sec _{CRI} vs Ins _{AAI} /Ins _{CRI}			Sec _{AAI} /Sec _{CRI} vs Sec _{AAI} /Ins _{CRI}			Ins _{AAI} /Ins _{CRI} vs Ins _{AAI} /Sec _{CRI}		
	<i>F</i> (1, 57)	β	<i>R</i> ²	<i>F</i> (1, 53)	β	<i>R</i> ²	<i>F</i> (1, 55)	β	<i>R</i> ²
Positive Feelings	6.41*	.32	.10	1.58	.17	.03	7.90**	-.35	.13
RR Secure Base Process	9.69**	.38	.14	.14	.05	.00	4.70*	-.28	.08
RR Negative Reciprocity	9.57**	-.38	.14	5.50*	-.31	.09	8.65**	.37	.14
RR Conflict Resolution	32.71***	.60	.36	1.75	.18	.03	12.77**	-.43	.19
RR Positive Affect	3.69 [†]	.24	.06	.34	.08	.01	10.53**	-.40	.16
RR Negative Affect	8.51**	-.36	.13	.93	-.13	.02	6.22*	.32	.10
RR Anger	12.64**	-.42	.18	2.96 [†]	-.23	.05	4.77*	.28	.08
RR Hostility	11.21**	-.40	.16	.94	-.13	.02	4.38*	.27	.07
RR Relationship Quality	18.12***	.49	.24	.41	.09	.01	8.87**	-.37	.14

Variable	Sec _{AAI} /Sec _{CRI} vs Ins _{AAI} /Sec _{CRI}			Ins _{AAI} /Ins _{CRI} vs. Sec _{AAI} /Ins _{CRI}			Ins _{AAI} /Sec _{CRI} vs Sec _{AAI} /Ins _{CRI}		
	<i>F</i> (1, 46)	β	<i>R</i> ²	<i>F</i> (1, 62)	β	<i>R</i> ²	<i>F</i> (1, 51)	β	<i>R</i> ²
Positive Feelings	.04	.03	.00	2.88 [†]	.21	.05	2.75	.23	.05
RR Secure Base Process	.48	.10	.01	7.78**	.34	.11	.13	-.05	.00
RR Negative Reciprocity	.00	.00	.00	1.20	-.14	.02	5.06*	-.30	.09
RR Conflict Resolution	2.44	.22	.05	18.49***	.48	.23	.12	-.05	.00
RR Positive Affect	1.46	-.17	.03	2.02	.18	.03	3.51 [†]	.26	.07
RR Negative Affect	.34	-.09	.01	4.31*	-.26	.07	.14	-.05	.00
RR Anger	2.41	-.22	.05	3.35 [†]	-.23	.05	.17	-.06	.00
RR Hostility	2.33	-.22	.05	6.65*	-.32	.10	.21	.06	.00
RR Relationship Quality	1.24	.16	.03	14.33***	.44	.19	.28	-.08	.01

Notes. [†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 5. Descriptive Statistics for Predictors of AAI/CRI Group

Variable	Ins _{AAI} /Ins _{CRI}		Ins _{AAI} /Sec _{CRI}		Sec _{AAI} /Ins _{CRI}		Sec _{AAI} /Sec _{CRI}		Total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
12 month Attachment	1.56	.50	1.65	.49	1.59	.50	1.62	.50	1.60	.49
24 month Parenting	2.68	.77	3.30	.97	3.24	1.15	3.92	.93	3.24	1.05
54 month Ego Resilience	-0.71	3.35	0.81	2.30	-.36	2.69	1.32	2.08	0.16	2.81
Peer Competence	177.81	73.38	183.06	89.05	204.97	88.53	245.95	81.62	201.74	85.78
Friendship Quality	12.79	2.99	14.98	2.94	14.78	3.93	15.03	3.51	14.28	3.47
Global Adjustment	3.56	.96	3.70	.88	3.79	.94	4.31	.84	3.82	.94
Partner Positive Feelings	16.58	3.00	18.43	1.84	18.04	1.90	18.29	1.95	17.72	2.39
Partner CRI Coherence	4.64	1.93	4.48	1.12	5.05	1.91	5.44	1.54	4.87	1.69

Table 6. Zero-order Correlations Between Predictors of AAI/CRI Group

	1	2	3	4	5	6	7	8	9	10
1. AAI Coherence	-									
2. CRI Coherence	.27*	-								
3. 12 m. Attachment	.03	.11	-							
4. 24 m. Overall Parenting	.25**	.38***	.21*	-						
5. 54 m. Ego Resilience	.17 [†]	.28**	.20*	.25**	-					
6. Peer Competence	.18 [†]	.27**	.27*	.37**	.28**	-				
7. Friendship Quality	.21*	.22*	.07	.22*	.36***	.31**	-			
8. Global Adjustment	.24*	.16 [†]	.21*	.37***	.23**	.47***	.25**	-		
9. Partner Positive Feelings	.15	.21*	.27**	.23*	.37***	.26**	.24*	.30**	-	
10. Partner CRI Coherence	.09	.02	.07	.16	.08	.14	.09	.19 [†]	.15	-

Notes. [†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 7. Effect-coded Regression Contrasts for Predictors of AAI/CRI Group

Variable	Sec _{AAI} /Sec _{CRI} vs Ins _{AAI} /Ins _{CRI}			Sec _{AAI} /Sec _{CRI} vs Sec _{AAI} /Ins _{CRI}			Ins _{AAI} /Ins _{CRI} vs. Ins _{AAI} /Sec _{CRI}		
	<i>F</i> (1, 57)	β	<i>R</i> ²	<i>F</i> (1, 53)	β	<i>R</i> ²	<i>F</i> (1, 55)	β	<i>R</i> ²
12 month Attachment	.18	.06	.00	.05	.03	.00	.48	.09	.01
24 month Parenting	32.16***	.60	.36	5.71*	-.31	.10	7.38**	.34	.12
Ego Resilience 54 Month	7.39**	.34	.11	6.63*	-.33	.11	3.57 [†]	.25	.06
Peer Competence	11.53**	.41	.17	3.16 [†]	-.24	.06	.06	.03	.00
Friendship Quality	7.12**	.33	.11	.06	-.03	.00	7.46**	.35	.12
Global Adjustment	10.00**	.38	.15	4.55*	-.28	.08	.30	.07	.01
Partner Positive Feelings	6.37*	.32	.10	.23	-.07	.00	6.94*	.34	.12

Variable	Sec _{AAI} /Sec _{CRI} vs Ins _{AAI} /Sec _{CRI}			Ins _{AAI} /Ins _{CRI} vs. Sec _{AAI} /Ins _{CRI}			Ins _{AAI} /Sec _{CRI} vs. Sec _{AAI} /Ins _{CRI}		
	<i>F</i> (1, 46)	β	<i>R</i> ²	<i>F</i> (1, 62)	β	<i>R</i> ²	<i>F</i> (1, 50)	β	<i>R</i> ²
12 month Attachment	.07	.04	.00	.05	.03	.00	.23	.07	.01
24 month Parenting	5.14*	-.31	.10	5.37*	.28	.08	.04	.03	.00
Ego Resilience 54 Month	.69	-.12	.01	.21	.06	.00	2.74	.23	.05
Peer Competence	6.65*	-.35	.12	1.77	.17	.03	.78	-.12	.02
Friendship Quality	.00	-.01	.00	5.21*	.28	.08	.04	.03	.00
Global Adjustment	6.25*	-.34	.12	.95	.12	.02	.15	-.05	.00
Partner Positive Feelings	.07	.04	.00	5.11*	.28	.08	.55	.10	.01

Notes. [†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 8. Antecedent DFA: Ins_{AAI}/Ins_{CRI} vs. Ins_{AAI}/Sec_{CRI}

Actual Group	N	Predicted Group	
		Ins_{AAI}/Ins_{CRI}	Ins_{AAI}/Sec_{CRI}
Ins_{AAI}/Ins_{CRI}	34	28	6
Ins_{AAI}/Sec_{CRI}	23	8	15

Original cases classified correctly = 75.4%

Effect Size = .28, Model Wilks' Lambda = .72*

Discriminating Variables	Wilks' Lambda	$F(1, 55)$
Friendship Quality	.88	7.46**
24 month Parenting	.88	7.38**
Partner Positive Feelings	.89	6.94*
Ego Resilience	.94	3.57 [†]
12 month Attachment	.99	.48
Global Adjustment	.99	.30
Peer Competence	.99	.06

Notes. [†] $p < .10$, * $p < .05$, ** $p < .01$.

Table 9. Antecedent DFA: Sec_{AAI}/Sec_{CRI} vs. Sec_{AAI}/Ins_{CRI}

Actual Group	N	Predicted Group	
		Sec _{AAI} /Sec _{CRI}	Sec _{AAI} /Ins _{CRI}
Sec _{AAI} /Sec _{CRI}	29	21	8
Sec _{AAI} /Ins _{CRI}	26	9	17

Original Cases classified correctly = 69.1%

Effect Size .20, Model Wilks' Lambda = .80.

Discriminating Variables	Wilks' Lambda	<i>F</i> (1, 53)
54 month Ego Resilience	.89	6.63*
24 month Parenting	.99	5.71*
Global Adjustment	.92	4.55*
Peer Competence	.94	3.16 [†]
Partner Positive Feelings	.99	.23
Friendship Quality	.99	.06
12 month Attachment	.99	.05

Notes. [†] $p < .10$, * $p < .05$.

Table 10. Romantic Functioning DFA: Ins_{AAI}/Ins_{CRI} vs. Ins_{AAI}/Sec_{CRI}

Actual Group	N	Predicted Group	
		Ins_{AAI}/Ins_{CRI}	Ins_{AAI}/Sec_{CRI}
Ins_{AAI}/Ins_{CRI}	34	31	3
Ins_{AAI}/Sec_{CRI}	23	7	16

Original cases classified correctly = 82.5%

Effect Size = .38, Model Wilks' Lambda = .62**

Discriminating Variables	Wilks' Lambda	$F(1, 55)$
RR Conflict Resolution	.81	12.77**
RR Positive Affect	.84	10.53**
RR Relationship Quality	.86	8.87**
RR Negative Reciprocity	.86	8.65**
Positive Feelings	.87	7.90**
RR Negative Affect	.90	6.22*
RR Anger	.92	4.77*
RR Secure Base Process	.92	4.70*
RR Hostility	.93	4.38*

Notes. * $p < .05$, ** $p < .01$.

Table 11. Romantic Functioning DFA: Sec_{AAI}/Ins_{CRI} vs. Sec_{AAI}/Sec_{CRI}

Actual Group	N	Predicted Group	
		Sec _{AAI} /Sec _{CRI}	Sec _{AAI} /Ins _{CRI}
Sec _{AAI} /Sec _{CRI}	29	22	7
Sec _{AAI} /Ins _{CRI}	26	8	18

Original cases classified correctly 72.7%

Effect Size = .19, Model Wilks' Lambda = .81

Discriminating Variables	Wilks' Lambda	<i>F</i> (1, 53)
RR Negative Reciprocity	.91	5.50*
RR Anger	.95	2.96 [†]
RR Conflict Resolution	.97	1.75
Positive Feelings	.97	1.58
RR Negative Affect	.98	.93
RR Hostility	.98	.91
RR Relationship Quality	.99	.91
RR Positive Affect	.99	.23
RR Secure Base Process	.99	.14

Notes. [†] $p < .10$, * $p < .05$.

Table 12. Cumulative DFA: Ins_{AAI}/Ins_{SCRI} vs. Ins_{AAI}/Sec_{CRI}

Actual Group	N	Predicted Group	
		Ins_{AAI}/Ins_{SCRI}	Ins_{AAI}/Sec_{CRI}
Ins_{AAI}/Ins_{SCRI}	34	32	2
Ins_{AAI}/Sec_{CRI}	23	4	19

Original cases classified correctly = 89.5%

Effect Size = .56, Model Wilks' Lambda = .44***

Discriminating Variables	Wilks' Lambda	$F(1, 55)$
RR Conflict Resolution	.81	12.77**
RR Positive Affect	.84	10.53**
RR Relationship Quality	.86	8.87**
RR Negative Reciprocity	.86	8.65**
Positive Feelings	.87	7.90**
Friendship Quality	.86	7.46**
24 month Parenting	.88	7.38**
Partner Positive Feelings	.89	6.94*
RR Negative Affect	.90	6.22*
RR Anger	.92	4.77*
RR Secure Base Process	.92	4.70*
RR Hostility	.93	4.38*
Ego Resilience	.94	3.57 [†]
12 month Attachment	.99	.48
Global Adjustment	.99	.30
Peer Competence	.99	.06

Notes. [†] $p < .10$, * $p < .05$, ** $p < .01$.

Table 13. Cumulative DFA: Sec_{AAI}/Sec_{CRI} vs. Sec_{AAI}/Ins_{CRI}

Actual Group	N	Predicted Group	
		Sec _{AAI} /Sec _{CRI}	Sec _{AAI} /Ins _{CRI}
Sec _{AAI} /Sec _{CRI}	29	23	6
Sec _{AAI} /Ins _{CRI}	26	7	19

Original cases classified correctly = 76.4%

Effect Size .39, Model Wilks' Lambda = .61*

Discriminating Variables	Wilks' Lambda	<i>F</i> (1, 53)
54 month Ego Resilience	.89	6.63*
24 month Parenting	.90	5.71*
RR Negative Reciprocity	.91	5.50*
Global Adjustment	.92	4.55*
Peer Competence	.94	3.16†
RR Anger	.95	2.96†
RR Conflict Resolution	.97	1.75
Positive Feelings	.99	1.58
RR Negative Affect	.98	.93
RR Hostility	.98	.91
RR Relationship Quality	.99	.41
RR Positive Affect	.99	.34
Partner Positive Feelings	.99	.23
RR Secure Base Process	.99	.14
Friendship Quality	.99	.06
12 month Attachment	.99	.05

Notes. † $p < .10$, * $p < .05$.

Figure 1. Standardized Romantic Functioning Means by AAI/CRI Group

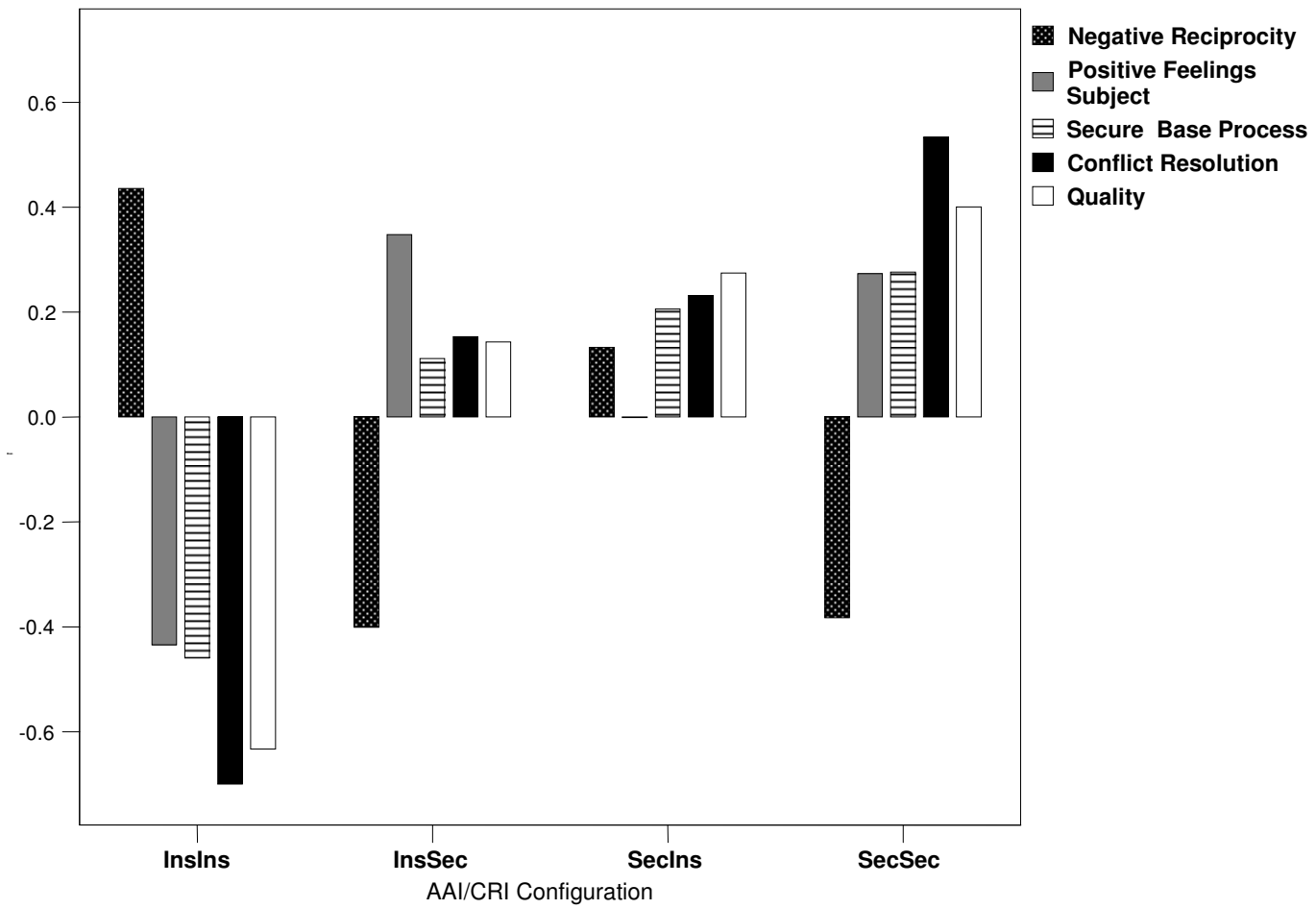


Figure 2. Standardized Antecedent Means by AAI/CRI Group

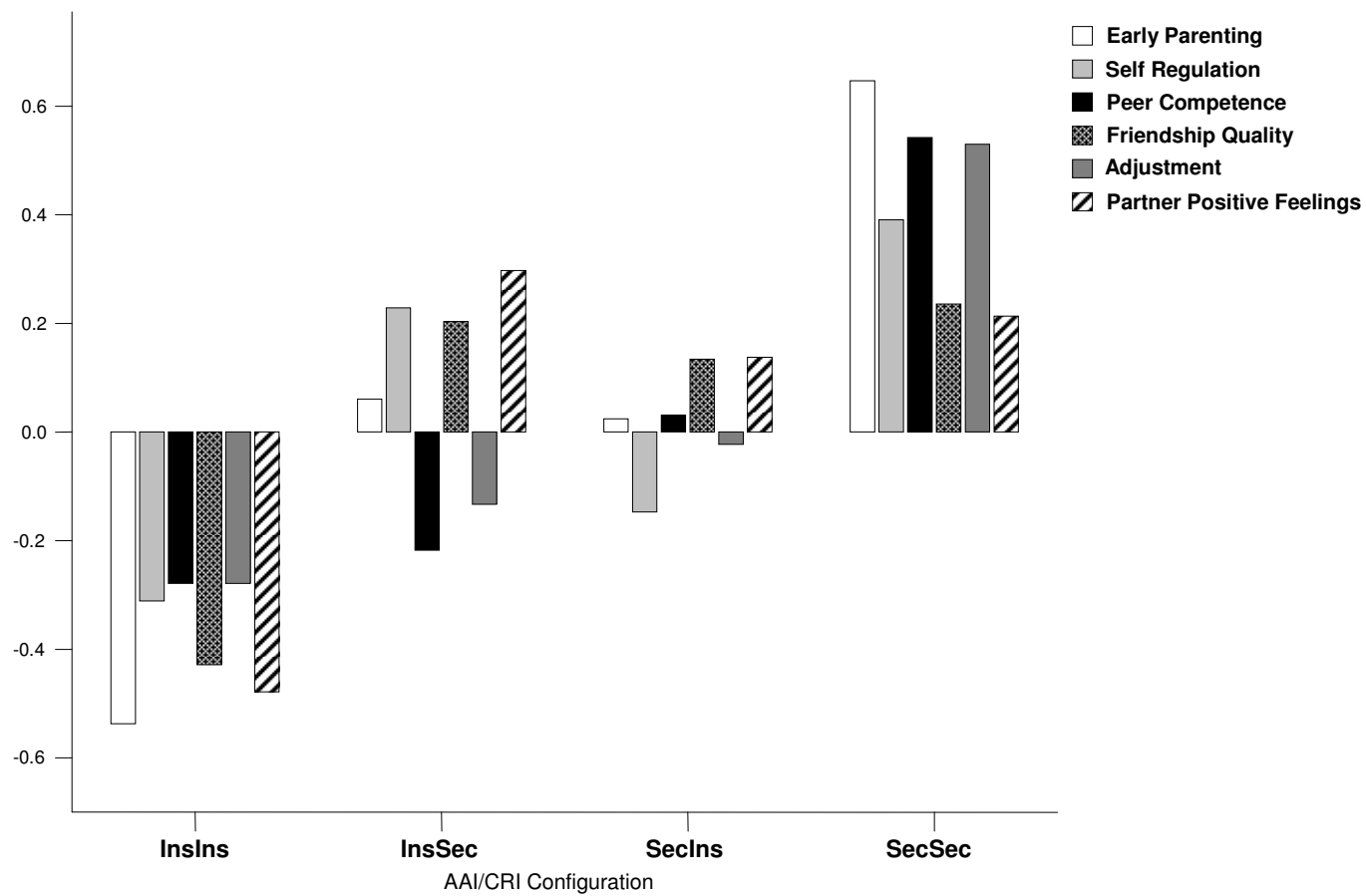


Figure 3. Developmental Trajectories by AAI/CRI Group.

