

Working Models of Attachment to Parents and Partners: Implications for Emotional Behavior Between Partners

Neera Mehta
Northwestern University

Philip A. Cowan and Carolyn P. Cowan
University of California, Berkeley

This study examined whether working models of attachment are associated with observed positive emotion, sadness, and anger during marital conflict. Individuals ($n = 176$) from a longitudinal study of families participated in the current cross-sectional study. Narrative interviews assessed the unique and combined contribution of attachment representations based on parents (adult attachment) and partner (couple attachment). The influence of partner's attachment, depression symptoms, and sex of participant was also examined. Hierarchical linear models demonstrated that one's couple attachment security predicts one's observed positive emotion, whereas the partner's couple attachment security predicts one's observed negative emotion. Partner's depression symptoms moderated the effects of partner's couple attachment. Adult attachment was not related to observed emotional behavior between partners. These findings have important clinical implications for individual, couple, and family therapy.

Keywords: attachment, adult, couple, emotion, marriage

An extensive body of empirical research has shown that one of the strongest predictors of marital satisfaction and stability is the way partners express emotions when they try to resolve disagreements (see Driver, Tabares, Shapiro, Nahm, & Gottman, 2003). An important unanswered question is what pathways lead some individuals to display emotions during conflict that are associated with marital dissatisfaction, whereas others handle conflict in ways that do not take a toll on their marriage? A belief long held by therapists and researchers is that behavior in intimate adult relationships is influenced by early experiences with caregivers. However, it is unclear from the current empirical literature which aspects of adult behavior are shaped by these early experiences. According to attachment theorists, working models of experiences with caregivers guide emotional behavior in adult relationships (e.g., Hill, Fonagy, Safer, & Sargent, 2003). Therefore, these internalized working models of attachment may help explain the individual differences in emotional behavior exhibited between partners during conflict.

Although working models of attachment with respect to early caregiver experiences (i.e., adult attachment) have been linked to romantic relationship quality, only a few studies have specifically examined emotional functioning (e.g., Paley, Cox, Payne, & Burchinal, 1999). Furthermore,

empirical work has supported Bowlby's (1973) claim that, in addition to prior history, security in current relationships will influence relationship quality in adulthood (e.g., Crowell et al., 2002; Hazan & Shaver, 1987). However, to our knowledge, the only research linking couple attachment to the emotional quality of romantic relationships is an earlier study using the same database as the present study (Alexandrov, Cowan, & Cowan, 2005). The current study extended this previous work by examining both adult and couple attachment in the same individuals and by examining each partner's specific emotional behavior during a marital interaction.

Previous studies (e.g., Dickstein, Seifer, Albus, & Magee, 2004) have also measured both adult and couple attachment within individuals and classified participants into groups (e.g., insecure adult–secure couple). It is unclear from such group classifications which attachment representation is driving observed effects because the independent contribution of each representation was not examined. Therefore, the current research attempted to clarify and extend previous findings in the literature by using an analytic strategy that allowed for the investigation of the unique and combined contribution of adult and couple attachment to specific emotional behaviors that are associated with marital dissatisfaction (i.e., low positive emotion, sadness, and anger during marital conflict).

Hypotheses and Research Questions

Our primary aim in this study was to compare the relative contributions of adult attachment and couple attachment in explaining emotional behavior during a conflict discussion between partners. On the basis of attachment theory and research, we expected couple attachment to explain signif-

Neera Mehta, Department of Psychiatry and Behavioral Sciences, Northwestern University; Philip A. Cowan and Carolyn P. Cowan, Psychology Department, University of California, Berkeley.

Correspondence concerning this article should be addressed to Neera Mehta, 233 East Erie Street, Suite 705, Chicago, IL 60611. E-mail: neera@northwestern.edu

icant variance in observed positive emotion, sadness, and anger with one's partner. Because this is a relatively new research area, we also had exploratory questions regarding three theoretically and empirically relevant factors. First, we assessed whether one's partner's attachment representations influence an individual's behavior; most attachment studies of romantic relationships do not consider this factor even though their focus is on dyadic interactions. Second, we assessed depression symptoms because the central constructs of this study—observed emotional behavior, marital quality, and working models of attachment—are all theoretically and empirically associated with depression symptoms (e.g., Dickstein et al., 2004). Third, previous research in this area has for the most part analyzed data separately for men and women, thus precluding a direct test of sex differences. The current study analyzed data from both husbands and wives in the same model to determine whether the influence of attachment on observed emotion differed by sex.

Method

Participants

This study used data from a sample of 100 couples participating in a larger longitudinal study of families in which the first child was entering elementary school, the Schoolchildren and Their Families Project (see Cowan & Cowan, 1997). The families were recruited through media announcements and fliers at childcare centers and pediatricians' offices. The families lived in 27 towns within a 40-mile radius of Berkeley, CA, and their median annual income was \$78,000, with 21% of participants' incomes below the median family income in the Bay Area. A subsample of 176 married participants (88 men, 88 women) who completed the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985) or the Couple Attachment Interview (CAI; Silver & Cohn, 1992) was used for the current study. Both partners from each of the 88 couples participated in the study. According to their self-reports, 82% of wives and 81% of husbands are European American, and the remaining participants are African American, Asian, Latino, Middle Eastern, or undisclosed. Average age of husbands was 37.73 years and average age of wives was 36.11 years. Marriage lengths ranged from 2 to 23 years.

Procedure

Families participated in multiple assessment sessions over 2 years that included structured interviews and observations of marital, parent-child, and whole family interactions, and questionnaire booklets for each partner to complete separately. The AAI was completed in the first year and the CAI was completed the following year. Both interviews were followed by a discussion in which partners tried to resolve a real-life conflict in their relationship. For the purposes of this study, the conflict conversation and questionnaires from the second year were used. Similar results were obtained using data from the first-year visit.

Measures

The Adult Attachment Interview. The AAI (George et al., 1985) is an hour-long semi-structured interview that assesses the adult's current state of mind with respect to early attachment (see Hesse, 1999, for further details). Attachment classifications were based on a discourse analysis of transcripts from the interviews. A secure classification indicates that the interviewee collaboratively, objectively, and coherently described caregiver experiences. A preoccupied classification indicates that the interviewee was preoccupied with past or current attachment experiences, and a dismissing classification indicates that the interviewee tended to minimize the importance of attachment figures. The AAI coders met reliability criteria established by Mary Main and Erik Hesse (the creators of the AAI scoring system), and the kappa coefficient calculated for a reliability subsample of 15 transcripts was .70 ($p < .01$). Protocols in which there were disagreements between coders were submitted to Main and Hesse, who then coded and consulted on the classifications for those transcripts.

The Couple Attachment Interview. The CAI (Silver & Cohn, 1992) is a semi-structured interview modeled after the AAI structurally and conceptually and developed to assess working models of attachment with respect to one's current romantic relationship. Transcripts were rated in terms of their resemblance to three prototypes of couple relationship narratives: secure, preoccupied, and dismissing (see Alexandrov et al., 2005, for further details). Interrater reliability of this coding system was assessed by having 80% of the CAI transcripts double-rated. Kappa coefficients calculated for each pair of coders (i.e., the primary coder with each of three secondary coders) ranged between .63 and .79 ($p < .001$).

Observed marital behavior. Husbands and wives were videotaped during a 10-min conflict resolution task, using procedures developed by Gottman and Levenson (1986). Partners chose a real-life disagreement to work on from a list of common marital problems. Trained coders rated the interactions from the videotaped discussions, using codes based on Malik and Lindahl's (2000) System for Coding Interactions in Dyads and Cowan and Cowan's (1995) Coparenting System. Observed positive emotion, sadness, and anger were assessed on scales ranging from 0 (*very low*) to 4 (*high*). Observed emotion was coded on the basis of participants' tone of voice, facial expressions, statements, and body language. Interrater reliability on these scales was adequate: Intraclass correlations ranged from .54 to .82.

Center for Epidemiological Studies—Depression scale. The Center for Epidemiological Studies—Depression scale (Radloff, 1977) is a self-report scale used to index depression symptoms in nonclinical populations. Cronbach's alphas for this measure were .89 for husbands and .86 for wives.

The Short Marital Adjustment Test. The Short Marital Adjustment Test (Locke & Wallace, 1959) is a widely used 16-item questionnaire that assesses participants' marital satisfaction. Cronbach's alphas for this measure were .66 for husbands and .62 for wives.

Results

This study employed an analytic method that deals with the nonindependence of observations obtained from dyadic data, the Actor–Partner Interdependence Model (APIM; see Kenny, Kashy, & Cook, 2006). This model requires that partner effects be controlled when estimating actor effects, and vice versa. On the basis of the APIM, we tested a series of hierarchical linear models using Mixed SPSS 12. The mixed-dyad variables in each model included the actor and partner effects of the AAI, the CAI, and depression symptoms (centered on the grand mean). Sex of participant was treated as a within-dyad variable. The dependent variables were positive emotion, sadness, and anger. Because of a high level of positive skew, the original values of anger were given a square root transformation and the values of sadness were cubed.

Descriptive Data

On the AAI, 36.6% of husbands' transcripts were classified as secure, 6.1% as preoccupied, and 34.1% as dismissing. Among wives, 46.8% of AAI transcripts were classified as secure, 15.2% as preoccupied, and 8.9% as dismissing. On the CAI, 64.4% of husbands' transcripts were classified as secure, 16.4% as preoccupied, and 19.2% as dismissing. Among wives, 76.7% of CAI transcripts were classified as secure, 11% as preoccupied, and 12.3% as dismissing. The remaining transcripts were designated as cannot classify or unresolved for loss. There was a moderate correlation between the AAI and CAI within individuals ($r = .31, p < .01$). A McNemar two-related-samples test revealed no significant sex differences in the distribution of secure and insecure categories. Partners' CAI scores were correlated ($r = .24, p < .01$), whereas AAI scores were not ($r = .02$). Partners' scores on observed positive emotion ($r = .59$), anger ($r = .43$), and sadness ($r = .25$) were significantly correlated ($ps < .05$). As expected, relationship satisfaction was significantly correlated with positive emotion ($r = .33, p < .01$), sadness ($r = -.18, p < .05$), and anger ($r = -.23, p < .05$).

APIM Analyses

A main effects model with a random intercept was tested initially (Kenny et al., 2006). The following equation was tested for each emotion:

$$\begin{aligned} \text{Observed Emotion} = & \text{Actor's AAI} + \text{Actor's CAI} \\ & + \text{Partner's AAI} + \text{Partner's CAI} + \text{Actor's Sex} \\ & + \text{Actor's Depression} + \text{Partner's Depression.} \end{aligned}$$

Interaction effects were tested next and nonsignificant interaction terms were removed to reduce the number of predictor variables in the model. To reduce the number of statistical tests and maximize power, we collapsed the attachment classifications into secure and insecure (dismissing, preoccupied, and cannot classify) groups. Key findings

are summarized below. Additional APIM results are available by request.

Working models of attachment. As predicted, actor's CAI explained significant variance in observed positive emotion, $b = .34, t(68.87) = 2.03, p < .05$. Secure couple attachment was associated with higher positive emotion than insecure couple attachment, after controlling for adult attachment, partners' attachment, and both partners' depression symptoms. Adult attachment did not explain additional variance in any of the emotion variables after controlling for the covariates. In addition, when CAI classifications were removed from the APIM analyses, there were no significant associations between actor and partner AAI and the observed emotion variables.

Partner's attachment and depression. Partner's couple attachment interacted with partner's depression to explain significant variance in actor's sadness, $b = .04, t(110.88) = 2.09, p < .05$. To interpret this interaction, we calculated simple slopes and the region of significance at specific values of partner's depression symptoms (1 *SD* above or below the mean). The region of significance provided additional information about the specific moderating conditions by indicating the range of depression values for which partner's couple attachment was significantly related to actor sadness. At low symptom levels, the simple slope of actor's sadness regressed on partner's CAI was significant, $b = -.37, t(119) = -3.26, p < .01$, indicating that individuals expressed less sadness with partners with secure couple attachment than partners with insecure couple attachment in the low depression symptom group. At higher symptom levels, the simple slope of actor's sadness regressed on partner's CAI was not significant, $b = .13, t(119) = 1.15, ns$. Centered depression scores ranged from -9.99 to 14.01 , and the region of significance was -1.74 to 13.39 , indicating that the association between partner's CAI and actor's observed sadness is significant only for lower levels of depression symptoms (see Figure 1).

Sex of participant. A significant main effect for actor's sex was observed for all three emotions—positive emotion, $b = .21, t(68.87) = 3.19, p < .01$; sadness: $b = .19, t(109.71) = 2.47, p < .05$; anger: $b = .21, t(56.51) = 2.53, p < .05$ —indicating that women expressed more emotion during the disagreements than men. None of the interaction terms with sex were significant, indicating that there were no sex differences in the link between attachment and emotion.

Discussion

We sought to investigate whether either or both adult and couple attachment are related to observed positive emotion, sadness, and anger between partners during discussions of unresolved conflict and the conditions under which these working models have more or less association with emotional behavior. The correlation between adult and couple attachment within individuals in this study was .31, suggesting that adults typically have multiple distinct, yet related, working models of attachment. This finding adds to a growing body of work

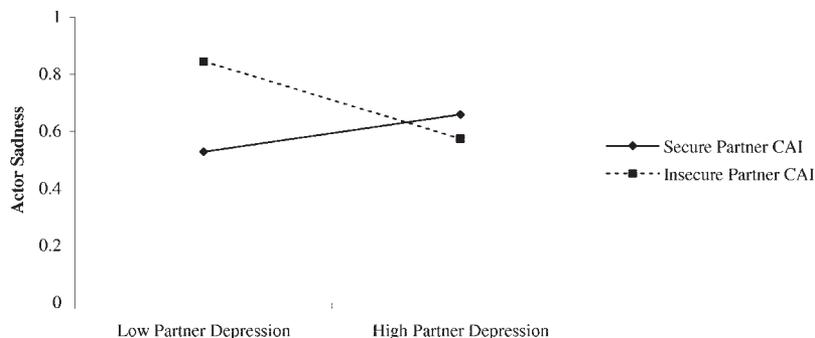


Figure 1. Partner Depression \times Partner Couple Attachment Interview (CAI) predicts actor sadness.

indicating that later attachment representations are not fully determined by early models of attachment and rejects a deterministic view of development.

Consistent with our hypothesis, security in one's current romantic relationship was significantly related to emotional behavior between partners, whereas security based on one's experiences with early caregivers was not related to emotional behavior between partners. One important difference between the current study and previous studies that have found a link between the AAI and emotional behavior (e.g., Paley et al., 1999) is that few previous studies dealt with the nonindependence of partners' data, which may have resulted in an overestimation of the role of AAI security. Previous research also assessed only adult attachment, whereas the current study assessed adult *and* couple attachment together within the same individuals to determine their unique and combined effects. To account for inconsistencies in the literature, future research would benefit from further examining which aspects of romantic relationships are uniquely related to adult attachment.

Given that cross-partner effects are often not examined in couples research, an important finding from this study is that participants' emotional behavior was influenced by their partners' security in the relationship. Individuals expressed lower levels of sadness during disagreements if their partners had secure working models of couple attachment, but only if their partners also had low levels of depression symptoms. There was no association between observed sadness and partner's couple attachment when partners had higher levels of depression symptoms, suggesting that partner's depression symptoms override the effects of partner's couple attachment security.

Although the results revealed links between attachment and emotion and between sex of participant and emotion, there was no link between attachment and sex of participant, indicating that the influence of adult and couple attachment does not differ between men and women. These findings also highlight the fact that working models of attachment are only one source of emotional behavior between partners. Future research should examine other factors that contribute to individual differences in the quality of emotional interactions between partners.

Clinical Implications

Understanding the influence of adult and couple attachment has important implications for interventions with individuals, couples, and families. The current research suggests that focusing on couple attachment security will do more to improve the emotional quality of romantic relationships than focusing on working models of early caregiver experiences. Specifically, improving the security of the bond between partners may contribute to more positive emotion and less sadness during conflicts, which in turn may result in increased relationship satisfaction and stability. Clinicians may also want to assess whether one partner's depression symptoms are overriding the beneficial effects of that partner's secure couple attachment. For therapists working with individuals, the results suggest attending to the effects of internal working models of couple attachment on emotional functioning and relationship quality.

Notably, these findings provide empirical support for therapies that emphasize current attachment-related emotions between partners (e.g., Emotionally Focused Therapy; Johnson, 1996). The results also support relational theories of individual psychotherapy, which suggest that having new relationship experiences with a trusted individual, perhaps a therapist or a romantic partner, may help compensate for the effects of an insecure attachment based on early caregivers.

Future Directions and Limitations

The current findings underscore the need to assess adult and couple attachment in both partners to more fully understand the influence of working models of attachment on romantic relationships. However, given the large number of statistical tests and smaller number of significant effects, the findings from this study should be considered tentative until further replications are attempted. In addition, the cross-sectional nature of the study limits the ability to draw causal inferences and the relatively modest sample size precluded the testing of subgroup differences (e.g., preoccupied vs. dismissing). Future research should also examine whether the same pattern of findings holds with a larger percentage of AAI transcripts that are classified as secure. Given the

different pattern of findings for observed anger and sadness, future research would also benefit from examining additional negative emotions as well as specific positive emotions that are more or less theoretically linked to attachment (e.g., love vs. joy). Despite these limitations, the results clarified previous inconsistencies in the literature about the association of attachment representations and romantic relationships. By taking a more comprehensive and statistically conservative approach, this study demonstrated that couple attachment, and not adult attachment, makes a unique contribution to the quality of emotional interactions between partners.

References

- Alexandrov, E. O., Cowan, P. A., & Cowan, C. P. (2005). Couple attachment and the quality of marital relationships: Method and concept in the validation of the new Couple Attachment Interview and coding system. *Attachment & Human Development, 7*, 123–152.
- Bowlby, J. (1973). *Separation: Anxiety and anger* (Vol. 2). New York: Basic Books.
- Cowan, C. P., & Cowan, P. A. (1997). Working with couples during stressful transitions. In S. Dreman (Ed.), *The family on the threshold of the 21st century: Trends and implications* (pp. 17–47). Mahwah, NJ: Erlbaum.
- Cowan, P. A., & Cowan, C. P. (1995). *Co-parenting rating scales*. Institute of Human Development, University of California, Berkeley.
- Crowell, J. A., Treboux, D., Gao, Y., Fyffe, C., Pan, H., & Waters, E. (2002). Assessing secure base behavior in adulthood: Development of a measure, links to adult attachment representations, and relations to couples' communication and reports of relationships. *Developmental Psychology, 38*, 679–693.
- Dickstein, S., Seifer, F., Albus, K. E., & Magee, K. D. (2004). Attachment patterns across multiple family relationships in adulthood: Associations with maternal depression. *Development and Psychopathology, 16*, 735–751.
- Driver, J., Tabares, A., Shapiro, A., Nahm, E. Y., & Gottman, J. M. (2003). Interactional patterns in marital success and failure: Gottman laboratory studies. In F. Walsh (Ed.), *Normal family processes: Growing diversity and complexity* (3rd ed., pp. 493–513). New York: Guilford Press.
- George, C., Kaplan, N., & Main, M. (1985). *Adult Attachment Interview protocol*. Unpublished manuscript, University of California, Berkeley.
- Gottman, J. M., & Levenson, R. W. (1986). Assessing the role of emotion in marriage. *Behavioral Assessment, 8*, 31–48.
- Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology, 52*, 511–524.
- Hesse, E. (1999). The Adult Attachment Interview: Historical and current perspectives. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment* (pp. 395–434). New York: Guilford Press.
- Hill, J., Fonagy, P., Safier, E., & Sargent, J. (2003). The ecology of attachment in the family. *Family Process, 42*, 205–221.
- Johnson, S. M. (1996). *The practice of emotionally focused marital therapy: Creating connection*. Philadelphia: Brunner/Mazel.
- Kenny, D. A., Kashy, D. A., & Cook, W. L. (2006). *Dyadic data analysis*. New York: Guilford Press.
- Locke, H. J., & Wallace, K. M. (1959). Short marital-adjustment and prediction tests: Their reliability and validity. *Marriage and Family Living, 21*, 251–255.
- Malik, N., & Lindahl, K. (2000). *System for Coding Interaction in Dyads*. Unpublished manuscript, University of Miami, Coral Gables, FL.
- Paley, B., Cox, M. J., Payne, C. C., & Burchinal, M. R. (1999). Attachment and marital functioning: Comparison of spouses with continuous-secure, earned-secure, dismissing and preoccupied attachment stances. *Journal of Family Psychology, 13*, 580–597.
- Radloff, L. S. (1977). The CES-D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1*, 385–401.
- Silver, D. H., & Cohn, D. A. (1992). *Couple Attachment Interview*. Unpublished manuscript, University of California, Berkeley.

Received August 18, 2008

Revision received April 5, 2009

Accepted April 20, 2009 ■