



Articles

Adult Romantic Attachment and Couple Conflict Behaviors: Intimacy as a Multi-Dimensional Mediator

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Abstract

This study investigated associations between adult romantic attachment and couples' conflict behaviors and the potential mediating role of intimacy. A community sample of 74 couples reported on their attachment security style on the Attachment Style Measure (ASM) (Simpson, 1990) and on multiple dimensions of intimacy on the Personal Assessment of Intimacy in Relationships (PAIR) (Schaefer & Olson, 1981). Couples' conflict behaviors were assessed via behavioral observations and coded for positive and negative dimensions of conflict. Path analyses indicated numerous actor and partner effects in the links between attachment, intimacy, and conflict. For men, both avoidant and anxious attachment styles were predictive of their own and their partner's intimacy. For women though, both secure and avoidant attachment styles were predictive of their own and their partner's intimacy. For men, all domains of intimacy were predictive of their own or their partner's conflict behaviors. For women, only emotional intimacy was predictive of conflict behaviors. All domains of men's intimacy emerged as significant mediators of associations between attachment and couples' conflict behaviors. For women, only emotional intimacy mediated these associations. Implications for the treatment of relationally-discordant couples are discussed.

Keywords: romantic attachment, couple conflict, intimacy, attachment insecurity, communication, mediation

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All romantic couples disagree on occasion, even those who are highly satisfied with their relationship (Gottman, 1994). Although conflict is a universal, the ways in which couples manage their conflict differ extensively. Resolution in conflict is associated with higher relationship satisfaction (Gottman, 1994; Roberts, 2000) and greater personal well-being (Siffert & Schwarz, 2011), whereas a lack of resolution is often associated with greater marital distress (Carstensen, Gottman, & Levenson, 1995) and poorer mental health (Du Rocher Schudlich, Papp, & Cummings, 2004). Because conflict is linked to important aspects of couples' functioning, it is important to examine how these unique conflict strategies may arise. Attachment theory (Bowlby, 1980) offers a coherent framework for understanding how particular conflict styles may emerge in the context of romantic relationships. Although researchers have documented clear associations between attachment styles and conflict behaviors (e.g. Creasey, 2002; Pistole & Arricale, 2003), further clarification of the underlying processes linking these two constructs remains an important area of examination in order to delineate explanatory processes that may become a focus for therapeutic intervention. Based on an attachment theory framework, in the present study we sought to examine how feelings of intimacy may mediate the relationship between attachment styles and conflict behaviors.

Attachment Theory and Conflict

Attachment theory emphasizes that people's experiences within close relationships shape their beliefs and expectations for other relational interactions (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1980). In romantic relationships, attachment serves as important source of security, providing comfort during times of emotional distress. Experiences in close relationships become incorporated into an internal working model, which acts as an interpretive filter for understanding and responding to attachment-related behaviors, thoughts, and emotions (Bowlby, 1980). Over time, repeated interactions within relationships shape how individuals respond to threats to the attachment system. Individuals classified as having a secure representation of attachment have experienced consistent caring responses from their attachment figure, and subsequently can effectively use their partner as a source of comfort and emotion regulation, while simultaneously serving as a source of comfort and regulation for their partners. Those with insecure attachment styles do not expect their attachment figure to be consistently available or responsive, because of past experiences (Ainsworth et al., 1978; Bowlby, 1980). Internal working models of attachment experiences may be particularly influential for how partners perceive and respond to conflict (Mikulincer & Shaver, 2005; Shi, 2003).

Marital conflict behaviors may be viewed as manifestations of the quality of the attachment bond between partners. In other words, marital conflict behaviors signify individual differences in couples' ability to use each other as sources of support in the family, especially during times of stress and conflict (Cowan, Cohn, Cowan, & Pearson, 1996; Mikulincer, Florian, Cowan, & Cowan, 2002). From an attachment theory standpoint, partners' representations of security should influence their specific affective and behavioral responses to conflict. That is, secure individuals feel trusting and safe to share their more vulnerable and tender sides with their partner during disagreements because they view conflict as less threatening to the relationship and perceive the relationship to be a safe place for exploration. On the other hand, those with insecure attachments perceive conflict as more negative (Pistole & Arricale, 2003), which both tests their ability to regulate their own emotions, and effectively turn to their partner to ameliorate conflict-related distress (Feeney, 2008).

As such, differences arise in individual's behaviors during conflict depending on their level of security in the relationship (Pistole & Arricale, 2003). For example, secure individuals, who view their partner as supportive and caring, tend to engage in more self-disclosure than insecurely attached individuals. Indeed, securely attached individuals demonstrate less avoidance of conflict and verbal aggression (Domingue & Mollen, 2009), and use more positive behaviors (Creasey, 2002; Du Plessis, Clarke, & Woolley, 2007) such as humor (Cann, Norman, Welbourne, & Calhoun, 2008). Those classified as insecure tend to have more problematic disagreements (Domingue & Mollen, 2009), both perceiving (Brassard, Lussier, & Shaver, 2009) and engaging (Pistole & Arricale, 2003) in more destructive conflict than secure individuals. Partners possessing a dismissive attachment style tend to withdraw from conflict and disengage from emotional discussion (Pistole, 1989). Couples classified with a pre-occupied attachment orientation have greater anxiety when discussing conflict, tend to ruminate on negative experiences and are overly-concerned with re-establishing security in the relationship (Simpson, Collins, & Salvatore, 2011).

The Role of Intimacy

Although specific definitions vary across researchers, intimacy is typically conceptualized as a sense of closeness to another person on multiple levels, which is formed through knowledge and experience of one another. More recent conceptualizations consider intimacy as a dynamic process between couples that covers multiple facets rather than a static, global outcome in relationships (Collins & Feeney, 2004; Sandhya, 2009). This view as outlined

by Schaefer and Olson (1981) recognizes the following intimacy domains: 1) *emotional intimacy* - experiencing a closeness of feelings; 2) *social intimacy* - having common friends and social networks; 3) *intellectual intimacy* - sharing ideas; 4) *recreational intimacy* - shared experiences and participation in interests, hobbies, and sports; and 5) *sexual intimacy* - sharing general physical affection or sexual activity. Attachment and intimacy are not thought to be equivalent processes (e.g. see Reis, 2006, for an overview), but rather intimacy is conceptualized as an attachment-related development stemming from a transactional process of closeness and autonomy between partners (Feldman, Gowen, & Fisher, 1998). Like the attachment system, intimacy also serves an underlying function to preserve the feelings of closeness in the relationship, but it also includes knowledge and positive experience of the other, and expands feelings of closeness to multiple domains within the relationship. Links between partners' attachment orientations and intimacy have been clearly documented, with those reporting higher levels of attachment security also reporting greater intimacy (Kane et al., 2007; Mikulincer & Shaver, 2005; Ruvolo & Fabian 1999). Furthermore, individuals classified as preoccupied report lower levels of intimacy than those who are securely attached (Ruvolo & Fabian, 1999), owing possibly to their relationship anxiety. Likewise, partners categorized as having a dismissive attachment orientation tend to have lower levels of intimacy than their secure counterparts, because this attachment style is marked by avoidance of intimacy in the relationship (Pistole, 1989).

Thus, the inability to successfully use one's partner as a secure base and source of comfort may over time erode the closeness and connection couples feel toward one another (Campbell, Simpson, Boldry, & Kashy, 2005) because they become less open to engaging in other positive experiences with one another. This leaves partners less sensitive to the impact of their behavior and restricts latitude in exploring their relationship and disagreements at deeper levels (Curran, Hazen, Jacobvitz, & Sasaki, 2006). Decreased feelings of intimacy may signify less commitment to repairing, maintaining, or improving the marital relationship, creating an emotionally challenging environment in which to resolve conflict (Campbell et al., 2005; Mikulincer & Shaver, 2005). Partners may feel more uncomfortable openly discussing their feelings when they sense distance from each other (Mikulincer & Shaver, 2005). As a result, couples may be less-able to resolve their disagreements in constructive ways, and instead engage in more destructive behaviors such as avoidance or heightened displays of anger (Cummings & Davies, 2010).

Although numerous studies have examined intimacy as a global outcome in relationship to either attachment styles or conflict, research examining intimacy multi-dimensionally in relation to both constructs has been virtually non-existent. At the core of attachment is emotional processes, and thus attachment is likely to be most closely related to emotional intimacy. However, attachment may also be relevant to other intimacy domains as well, given that it generally increases overall intimacy. Emotional intimacy may be most closely related to couples' conflict as emotion regulation processes are central one's ability to manage conflict constructively instead of destructively. Intellectual intimacy may also be especially important for constructive conflict because it reflects a couples' ability to connect through shared ideas, which involves processes such as positive communication skills, problem solving, humor, and support: processes that are central to constructive conflict tactics. The roles of the other intimacy domains in relation to attachment and intimacy are uncertain. Although theory and research support examining intimacy as a potential mediating process between attachment style and couples' conflict, we are unaware of a single study to date examining this.

Present Study

Extending previous work, the present study expands understanding of links between adult attachment and conflict by explicitly examining intimacy as a potential underlying mechanism to explain these pathways. Specification

and testing of process-oriented models is imperative to illuminating potential targets for intervention. Furthermore, we consider intimacy multi-dimensionally, rather than consider it as a global construct. Addressing the calls for a more dyadic level of analysis (Kenny, Kashy, & Cook, 2006), an additional advance is our consideration of both men's and women's attachment styles and levels of intimacy as predictors of each partner's reports of constructive and destructive marital conflict behaviors. Cross-spouse effects are particularly pertinent in evaluating notions that one person's attachment may be associated with his or her partner's feelings of intimacy, which, in turn, may be associated with use of specific conflict behaviors in both partners.

Consistent with attachment theory and previous research establishing separate links between attachment, couple conflict, and intimacy, we hypothesized that couples' intimacy would mediate links between attachment and conflict, with greater attachment security predicting higher intimacy, which in turn would predict more constructive conflict. Anxious and avoidant attachment were expected to be negatively related to couples' intimacy, which would in turn be negatively associated with destructive conflict. Given that emotional processes are at the core of attachment style and conflict, we hypothesized that emotional intimacy would show the greatest number of associations with attachment and conflict. Hypotheses were exploratory pertaining to actor and partner effects in terms of which pathways would be more prominent for women versus men regarding the links between attachment, intimacy, and conflict.

Method

Participants

This study was part of a larger study on family relationships. We collected the data between 2007 and 2009. Participants were recruited by contacting families listed in local birth records from a small county in the Pacific Northwest of the United States, as well as couples recommended by previous participants. Couples were required to have been cohabiting for at least six months, regardless of marital status, in order to ensure that couples described their current relationship circumstances. No restrictions were made regarding couples' sexual orientation. However, given the small number of participating homosexual couples ($n = 1$), only data pertaining to heterosexual couples was utilized for this study. Participants were 74 couples (women's M age = 29.56 years, $SD = 5.54$; men's M age = 31.62 years, $SD = 5.87$). Sixty four of the couples (85%) were married (M length of marriage = 4.83 years, $SD = 3.15$ years) and were living together for an average of 5.78 years ($SD = 3.34$). Couples reported having an average of 1.66 children ($SD = .75$). For women, 8.2% completed only high school, 38.3% attended some college or trade school, 37% held a bachelor's degree, and 16.5% held a master's degree or higher. For men, 1.4% did not complete high school, 15.1% completed only high school, 42.5% attended some college or trade school, 26% held a bachelor's degree, and 15% held a master's degree or higher. Men and women indicated a modal family income of \$40,001 - \$65,000 per year. In this sample, 88% of men and 85.3% of women were Caucasian, 1.3% of men and women were Asian American or Pacific Islander, 1.3% of men and women were Hispanic, 5.4% of men and 8% of women were biracial, and 3% of men and women did not report ethnicity.

Measures

Adult Romantic Attachment — Both partners completed the Attachment Style Measure (ASM) (Simpson, 1990). The ASM is a revised version of Hazan and Shaver's (1987) adult attachment measure. This 13 item scale has three subscales assessing attachment style: security, anxiety, and avoidance. Couples are presented with statements about how they might feel in relationships and are asked to agree or disagree with each of the statements on a scale from 1 = *strongly disagree* to 7 = *strongly agree*. Three of the items were reworded in a negative direction

and were reverse scored. Composite scores for each of the three subscales were created by averaging their respective items, with higher scores representing a higher level of attachment style.

Couple Intimacy — Couples completed 4 subscales of the Personal Assessment of Intimacy in Relationships (PAIR) (Schaefer & Olson, 1981) to assess their level of intimacy in the following areas: emotional, social, intellectual, recreational, and sexual intimacy. Sexual intimacy was not included in the present study. It is often a marker for more global relationship disturbances (e.g. poor communication, power imbalances, struggles with emotional intimacy) and is frequently intertwined with sexual dysfunction and other sexual behaviors, such as sexual information and skills, and high anxiety (McCarthy, 2002), rather than being primarily about physical closeness. As such, the intricacies of understanding it in relation to attachment and conflict were beyond the scope of the present study. Couples are presented with statements about their spouse/partner and asked about the extent to which they agree or disagree on a scale from 1 = *strongly disagree* to 5 = *strongly agree*. Items worded negatively were reverse scored and composite scores for each of the four subscales were created by averaging their respective items.

Procedures

Observation of Couples' Conflict in the Laboratory — Couples indicated separately the three topics that were most problematic for their relationship and then chose a topic that they would both be comfortable discussing. Couples were instructed to attempt to reach a resolution to their problem and to share their feelings and perspectives on the issues. Couples were left alone during their interaction, which was videotaped for later coding. After 7.5 minutes, the research assistant checked with the couple to see if they were finished with their discussion. Couples requesting additional time were given an additional 2.5 minutes.

Coding Observations of Couples' Conflict — An adapted version of The Marital Daily Records (MDR) protocol was used to code observations of marital interactions (Cummings, Goeke-Morey, Papp, & Dukewich, 2002). The MDR has good convergent validity with widely used self-report measures of marital conflict and marital relations (author cite). Conflict behaviors were defined as follows: (a) *conflict*, the level of tension, hostility, dissension, antagonism, or negative affect; (b) *defensiveness*, trying to avoid blame or responsibility; (c) *contempt*, lack of respect, insult, mockery, sarcasm, or derision of partner; (d) *withdrawal*, an avoidance of the interaction or of the problem discussion in some way; (e) *demand*, hounding or nagging partner; (f) *communication skills*, level of appropriate and positive expressive skills; (g) *support-validation*, appropriate and positive listening and speaking skills that convey supportiveness or understanding; (h) *problem solving*, the ability to constructively define a problem and work toward a mutually satisfactory solution; and (i) *humor*, trying to make a joke, finding something funny about the situation. For each of the behaviors, frequency and degree of behavior intensity were considered and coded on a scale from 1 - 9, with 1 = *absence of the expression*, 5 = *mid-range levels*, and 9 = *most intense expressions*. The degree of emotional intensity of each of four emotions (positivity, anger, sadness, and anxiousness) and the overall degree (1 - 9) of conflict resolution were coded for each partner, on the same 1 - 9 scale. The primary adaptation to the coding system included coding behaviors on a 1 - 9 scale, based on the Couples' Interaction Global Coding System, rather than the original 0 - 2 scale on the MDR (Julien, Markman, Lindahl, Johnson, & Van Widenfelt, 1987).

Each discussion was coded once by one of five undergraduate research assistants. The coders received extensive training by the principal investigator. A subset of 25 interactions was used to assess the coders' agreement with the principal investigator's codes using Intraclass Correlation Coefficient (ICC) (3,k), which is equivalent to

Cronbach's α (Shrout & Fleiss, 1979). Alphas for conflict expressions ranged from .60 - .98, with a mean alpha of .91. Separate conflict composites were created for women and men based on previous empirical and theoretical notions of constructive versus destructive conflict. A constructive conflict composite was created by averaging together the following conflict expressions: communication skills, support-validation, problem solving, humor, resolution and positivity. A destructive conflict composite was created by averaging together the following conflict expressions: conflict, defensiveness, contempt, withdrawal, demand, anger, sadness, and anxiety.

Data Analysis Plan

Path analysis was used to test hypotheses regarding mediational pathways between couples' attachment styles and their conflict. Models were estimated using the AMOS 20.0 statistical package, using the maximum likelihood (ML) method for estimating parameters. Multiple fit indices are reported to facilitate evaluation of the degree to which our models fit the sample data. The chi-square statistic represents a good fit when not statistically significant. For the χ^2/df ratio, which adjusts for model complexity, values between 1 and 3 indicate an acceptable fit (Arbuckle & Wothke, 1999). Additionally, when the comparative fit index (CFI) and the incremental fit index (IFI) are greater than .90 the hypothesized model fits the observed data adequately (Browne & Cudek, 1993). Errors of the indicators from the same measure were correlated with each other, however for clarity of presentation, correlations of errors are not shown in the figures. To ensure we had sufficient power to detect significant pathways and reject poor fitting models, we first ran simpler models with only one type of attachment style and one type of intimacy entered per model, resulting in 12 models. Next we compared these models to four more complex models that each included all three types of attachment styles, but just one intimacy domain. The significant pathways found in each model remained the same across the simpler and more complex models, and model fit was adequate to excellent in both sets of models. Thus, to reduce the number of models displayed only results for the more complex models are presented.

To determine the significance of mediation, bias-corrected confidence intervals for the indirect effects were calculated using bootstrap methods (MacKinnon, Lockwood, & Williams, 2004). Confidence intervals for indirect effects which do not contain zero are considered significant. For each model, the magnitude of effects was evaluated using Cohen's (1988) criteria.

Results

Descriptive Statistics

Table 1 presents the descriptive statistics for couples' attachment styles, intimacy, and conflict behaviors. Table 2 presents intercorrelations for all variables in the path analyses. Numerous significant associations were found between men and women's attachment styles and their intimacy, between attachment and conflict, and between intimacy and conflict, all in the expected directions. Men and women's intimacy domains and conflict behaviors both showed significant intra-correlations as well. Limited intra-correlations between partners' attachment styles were significant.

Table 1

Descriptive Statistics

Measures	<i>M</i>	<i>SD</i>	Range of scores	α
Interadult Attachment				
Female Anxious	2.02	.83	1.00-4.50	.78
Female Avoidant	2.66	1.43	1.00-7.00	.88
Female Secure	4.98	1.05	1.00-7.00	.65
Male Anxious	2.12	1.00	1.00-5.00	.78
Male Avoidant	2.85	1.07	1.00-5.75	.75
Male Secure	4.91	0.82	2.80-7.00	.56
Female Intimacy				
Emotional	4.15	0.70	2.33-5.00	.80
Social	4.02	0.73	2.17-5.00	.76
Intellectual	4.09	0.71	2.00-5.00	.72
Recreational	4.31	0.51	2.67-5.00	.76
Male Intimacy				
Emotional	4.08	0.69	2.33-5.00	.80
Social	3.89	0.69	2.00-5.00	.75
Intellectual	4.00	0.69	2.00-5.00	.75
Recreational	4.18	0.56	2.00-5.00	.76
Conflict Behaviors				
Female Constructive	5.25	1.43	2.13-7.75	.85
Female Destructive	2.27	0.77	1.07-4.14	.77
Male Constructive	5.36	1.43	1.50-8.00	.85
Male Destructive	2.07	0.92	1.00-5.71	.82

Couples' Emotional Intimacy as a Mediator Between Attachment and Conflict

Figure 1 presents results of the mediation model test with men and women's emotional intimacy as mediators in the links between attachment styles and couples' conflict. The results of the SEM indicated an adequate fit with the data, $\chi^2(30, N = 74) = 44.98, p = .04, \chi^2/df$ ratio = 1.50, IFI = .96, CFI = .96. As hypothesized, several indirect links between attachment styles and couples' conflict were found. Men's anxious attachment was significantly associated with less emotional intimacy by men and women. Women's emotional intimacy, in turn, was significantly associated with greater constructive conflict by both men and women. Men's emotional intimacy was negatively associated with their own destructive conflict. Confidence intervals of the indirect effects of men's anxious attachment on their own destructive conflict (95% CI = .078 to .355) based on 500 bootstrap samples did not include zero, indicating significant mediation effects of men's emotional intimacy. Confidence intervals of the indirect effects of men's anxious attachment on men's and women's constructive conflict (95% CI = -.417 to -.088 and -.429 to -.103) based on 500 bootstrap samples did not contain zero, indicating significant mediation effects of women's emotional intimacy.

The standardized regression coefficients displayed in the model represent effect sizes (Kelley & Preacher, 2012) (Figure 1). For example, the standardized path coefficient between male partners' anxious attachment and their own emotional intimacy was -.47 which is considered a medium effect size. All other significant path coefficients in the model ranged between -.27 to -.35, reflecting small effect sizes.

Table 2
Intercorrelations of Measures in Path Models

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Female Avoidant Attachment	---																
2. Male Avoidant Attachment	.17	---															
3. Female Anxious Attachment	.05	.02	---														
4. Male Anxious Attachment	.14	.29*	.34**	---													
5. Female Secure Attachment	-.67***	-.17	-.19	-.14	---												
6. Male Secure Attachment	-.31*	-.56***	-.18	-.36**	.20	---											
7. Female Emotional Intimacy	-.17	-.16	-.17	-.36**	.15	.16	---										
8. Female Social Intimacy	-.41**	-.39**	-.23*	-.36**	.55***	.22*	.40**	---									
9. Female Intellectual Intimacy	-.24*	-.08	-.24*	-.35*	.22*	.26*	.76***	.43***	---								
10. Female Recreational Intimacy	-.26*	-.41**	-.14	-.42***	.31*	.40**	.46***	.57***	.59***	---							
11. Male Emotional Intimacy	-.13	-.20	-.16	-.50***	.19	.27*	.46***	.32***	.45***	.38*	---						
12. Male Social Intimacy	-.11	-.22*	-.08	-.26*	.30*	.26*	.23*	.62***	.21*	.45***	.31**	---					
13. Male Intellectual Intimacy	-.12	-.18	-.22*	-.56***	.10	.29*	.46***	.24*	.52***	.50***	.69***	.38**	---				
14. Male Recreational Intimacy	-.17	-.37**	-.13	-.42***	.26*	.30*	.30*	.37**	.37**	.70***	.36**	.40***	.60***	---			
15. Female Destructive Conflict	-.08	-.07	-.11	.30*	.21*	.05	-.21*	.10	-.22*	-.22*	-.12	-.03	-.36**	-.26*	---		
16. Male Destructive Conflict	-.08	.01	.15	.30*	-.06	-.21*	-.22*	.01	-.27*	-.23*	-.32*	-.16	-.46***	-.34**	.55***	---	
17. Female Constructive Conflict	.07	.01	-.03	-.28*	-.09	-.04	.42**	.20	.37**	.26*	.31*	-.23*	.40**	.33**	-.61***	-.49***	---
18. Male Constructive Conflict	.04	-.04	.05	-.15	-.06	.09	.40**	.12	.34**	.26*	-.23*	-.23*	.35**	.29*	-.52***	-.60***	.71***

*p < .05. **p < .01. ***p < .001.

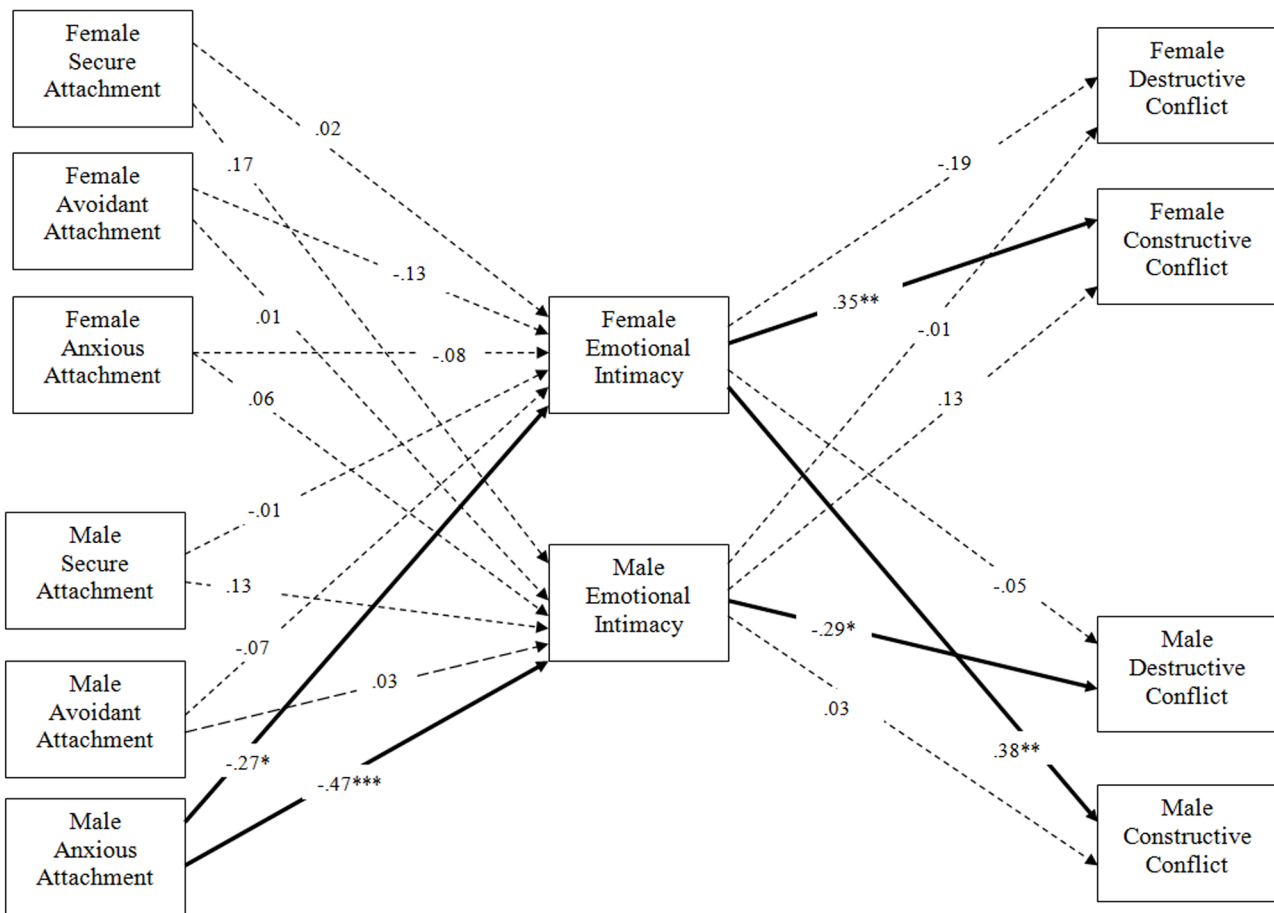


Figure 1. Couples’ emotional intimacy mediating between attachment and conflict. * $p < .05$. ** $p < .01$. *** $p < .001$.

Next, gender differences in actor and partner effects were tested. To determine whether any of the actor or partner pathways differed as a function of gender, we estimated and compared two models. The first model, presented in Figure 1, allowed each of these paths to be estimated freely. The second constrained the actor and partner paths for men and women to be equal to one another. The difference in the chi-square values of the two models is itself distributed as a chi-square, with degrees of freedom equal to the difference in the degrees of freedom of the two models. The model in which the parameters were estimated freely was significantly different from the model in which the parameters were constrained to be equal, $\chi^2_{diff}(15, N=74) = 27.36, p < .05$. Having established invariance in the path coefficients, a series of increasingly restrictive hypotheses were tested (Jöreskog, 1971), resulting in a model in which no other constraints on the path coefficients could improve model fit. The final model, $\chi^2_{diff}(10, N=74) = 5.12, ns$, included invariance constraints on actor and partner paths from women’s and men’s anxious attachment to women’s and men’s emotional intimacy, on actor and partner paths from women’s emotional intimacy to men and women’s constructive conflict, and on actor paths from men and women’s emotional intimacy to destructive conflict. Thus, men’s anxious attachment showed stronger links to their own and their partner’s emotional intimacy than did women’s anxious attachment. Women’s emotional intimacy was a greater predictor of couples’ constructive conflict than was men’s. Men’s emotional intimacy was a stronger predictor of men’s destructive conflict than was women’s emotional intimacy of women’s destructive conflict.

Couples' Social Intimacy as a Mediator Between Attachment and Conflict

Figure 2 presents the results of the mediation model test with men and women's social intimacy as mediators in the links between attachment and conflict.

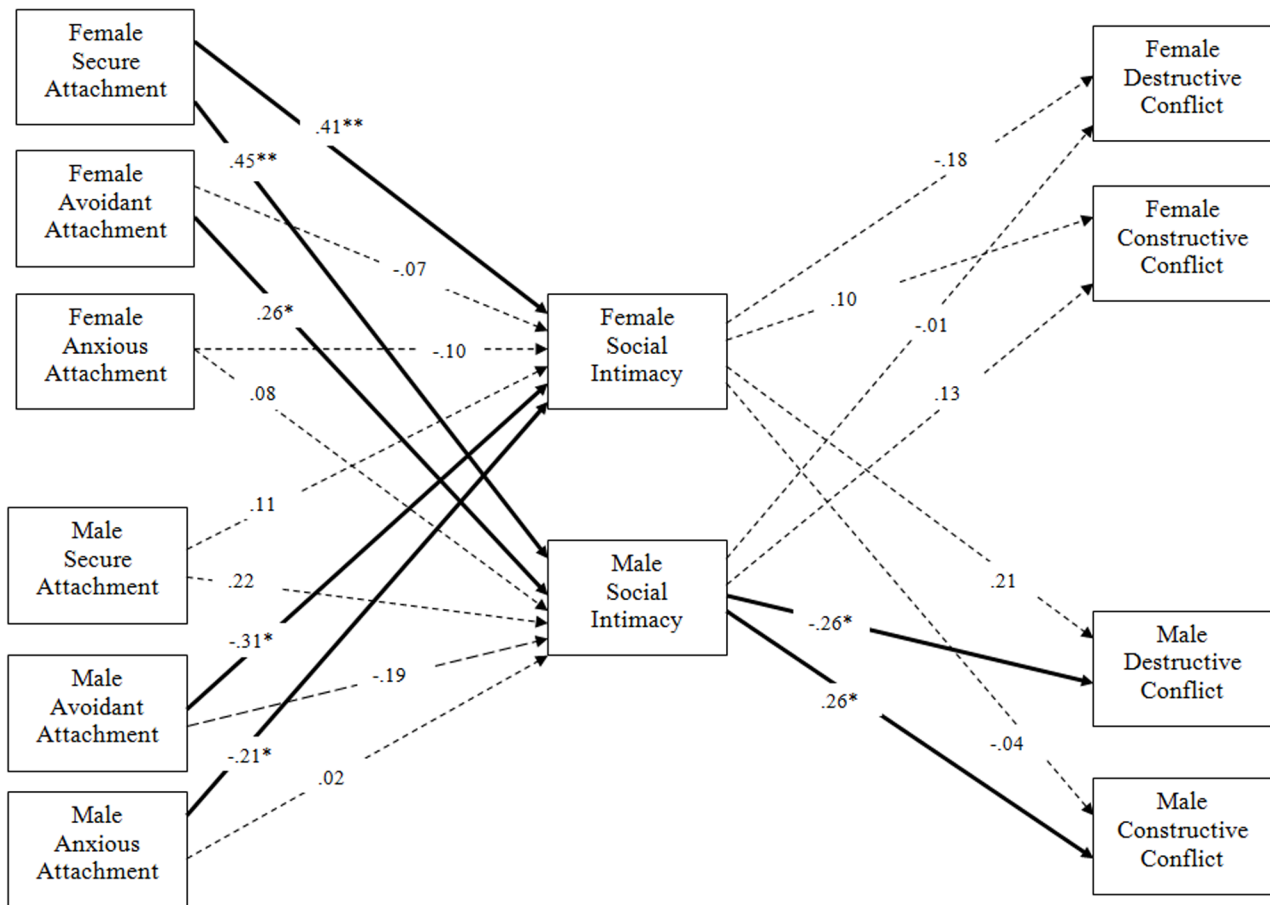


Figure 2. Couples' social intimacy mediating between attachment and conflict. * $p < .05$. ** $p < .01$. *** $p < .001$.

The results of the SEM indicated an adequate fit with the data, $\chi^2(30, N = 74) = 50.99, p = .010, \chi^2/df$ ratio = 1.70, IFI = .93, CFI = .93. Women's secure and avoidant attachment styles were negatively associated with men's social intimacy, which was in turn negatively associated with men's destructive conflict and positively associated with men's constructive conflict. Men's anxious and avoidant attachment styles were negatively associated with women's social intimacy and women's secure attachment was additionally associated with their own greater social intimacy. Women's social intimacy was not significantly associated with couples' conflict. Confidence intervals of the indirect effects of women's avoidant attachment on their partners' destructive and constructive conflict (95% CI = $-.086$ $-.044$ and CI = $-.074$ to $.041$, respectively) based on 500 bootstrap samples contained zero indicating no significant mediation effects for male's social intimacy in these associations. Confidence intervals of the indirect effects of women's secure attachment on men's destructive and constructive conflict (95% CI = $-.240$ to $.051$ and CI = $-.012$ to $.176$, respectively) based on 500 bootstrap samples contained zero indicating no significant mediation effects for men's social intimacy in these associations. Path coefficients ranged from $-.21$ to $.26$, reflecting small effect sizes.

Testing gender differences, the model in which the parameters were estimated freely was significantly different from the model in which the parameters were constrained to be equal, $\chi^2_{diff}(15, N = 74) = 128.94, p < .05$. After testing invariance constraints, the final model, $\chi^2_{diff}(9, N = 74) = 14.71, ns$, included invariance constraints on actor and partner paths from women's and men's attachment security to intimacy, on partner paths from men and women's anxious attachment to intimacy, and on actor paths from social intimacy to conflict. Thus, women's secure attachment more strongly predicted their own and their partners' social intimacy than did men's secure attachment. Men's anxious attachment was more strongly associated with women's social intimacy than was women's anxious attachment on men's social intimacy. Men's social intimacy was more strongly related to men's conflict than was women's social intimacy to women's conflict.

Couples' Intellectual Intimacy as a Mediator Between Attachment and Conflict.

Figure 3 presents the results of the mediation model test with men and women's intellectual intimacy as mediators in the links between attachment and conflict.

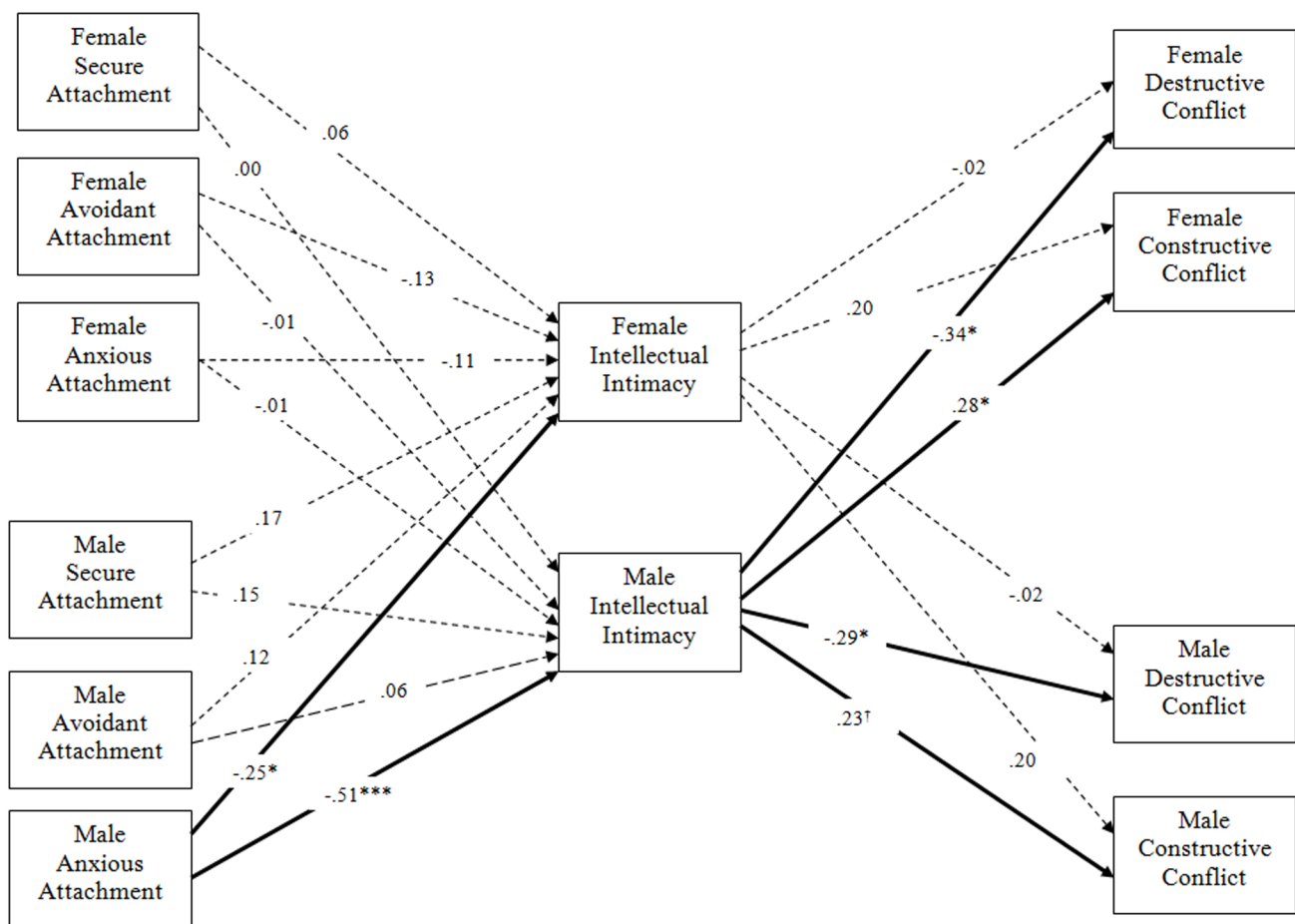


Figure 3. Couples' intellectual intimacy mediating between attachment and conflict. * $p < .05$. ** $p < .01$. *** $p < .001$. † $p < .08$.

The results of the SEM indicated an excellent fit with the data, $\chi^2(30, N = 74) = 39.55, p = .15, \chi^2/df$ ratio = 1.32, IFI = .98, CFI = .98. Men's anxious attachment was negatively associated with male intellectual intimacy, which

in turn was negatively associated with men's and women's destructive conflict and positively associated with men and women's constructive conflict, though marginally with men's constructive conflict. Men's anxious attachment was also negatively associated with women's intellectual intimacy. However, women's intellectual intimacy was not significantly associated with couples' conflict. Confidence intervals of the indirect effects of men's anxious attachment on men and women's constructive conflict (95% CI = -.459 to -.160 and -.413 to -.132, respectively) based on 500 bootstrap samples did not include zero, indicating significant mediation effects of men's intellectual intimacy. Confidence intervals of the indirect effects of men's anxious attachment on men and women's destructive conflict (95% CI = .122 to .433 and .135 to .371, respectively) based on 500 bootstrap samples did not include zero, indicating significant mediation effects of men's intellectual intimacy. Path coefficients ranged from .23 to .51, reflecting small to medium effect sizes.

Testing gender differences, the model in which the parameters were estimated freely was significantly different from the model in which the parameters were constrained to be equal, $\chi^2_{diff}(15, N = 74) = 38.76, p < .001$. After adding additional invariance constraints, the final model, $\chi^2_{diff}(2, N = 74) = 4.56, ns$, included invariance constraints on actor and partner paths from women's and men's anxious security to intellectual intimacy, and on actor and partner paths from men and women's intellectual intimacy to men to conflict. Thus men's anxious attachment more strongly predicted their own and women's intellectual intimacy than did women's anxious attachment. Men's intellectual intimacy more strongly predicted their own and their partner's conflict than did women's intellectual intimacy.

Couples' Recreational Intimacy as a Mediator Between Attachment and Conflict.

Figure 4 presents the results of the mediation model test with men and women's recreational intimacy as mediators in the links between attachment and conflict. The results of the SEM indicated an adequate fit with the data, $\chi^2(30, N = 74) = 50.04, p = .012, \chi^2/df$ ratio = 1.67, IFI = .94, CFI = .93. Men's avoidant and anxious attachment styles were negatively associated with male recreational intimacy, which in turn was negatively associated with men's destructive conflict, and marginally positively associated with women's constructive conflict. Women's secure attachment was an additional predictor of men's recreational intimacy. Men's anxious attachment was also positively associated with women's recreational intimacy.

However, women's recreational intimacy was not significantly associated with couples' conflict. Confidence intervals of the indirect effects of men's anxious and avoidant attachment on women's constructive conflict (95% CI = -.244 to -.054 and -.189 to -.023) based on 500 bootstrap samples did not include zero, indicating significant mediation effects of men's recreational intimacy. Confidence intervals of the indirect effects of men's anxious attachment on men's destructive conflict (95% CI = .019 to .207) based on 500 bootstrap samples did not include zero, indicating significant mediation effects of men's recreational intimacy. Confidence intervals of the indirect effects of men's avoidant attachment on men's destructive conflict (95% CI = -.001 to .150) based on 500 bootstrap samples included zero, indicating no significant mediation effects of men's recreational intimacy. Confidence intervals of the indirect effects of women's secure attachment on men's destructive conflict and women's constructive conflict (95% CI = -.176 to .025 and -.009 to .219, respectively) based on 500 bootstrap samples included zero, indicating no significant mediation effects of men's recreational intimacy. Path coefficients ranged from .23 to .51, reflecting small to medium effect sizes.

In testing gender differences, the model in which the parameters were estimated freely was not significantly different from the model in which the parameters were constrained to be equal, $\chi^2_{diff}(15, N = 74) = 18.86, ns$. Therefore

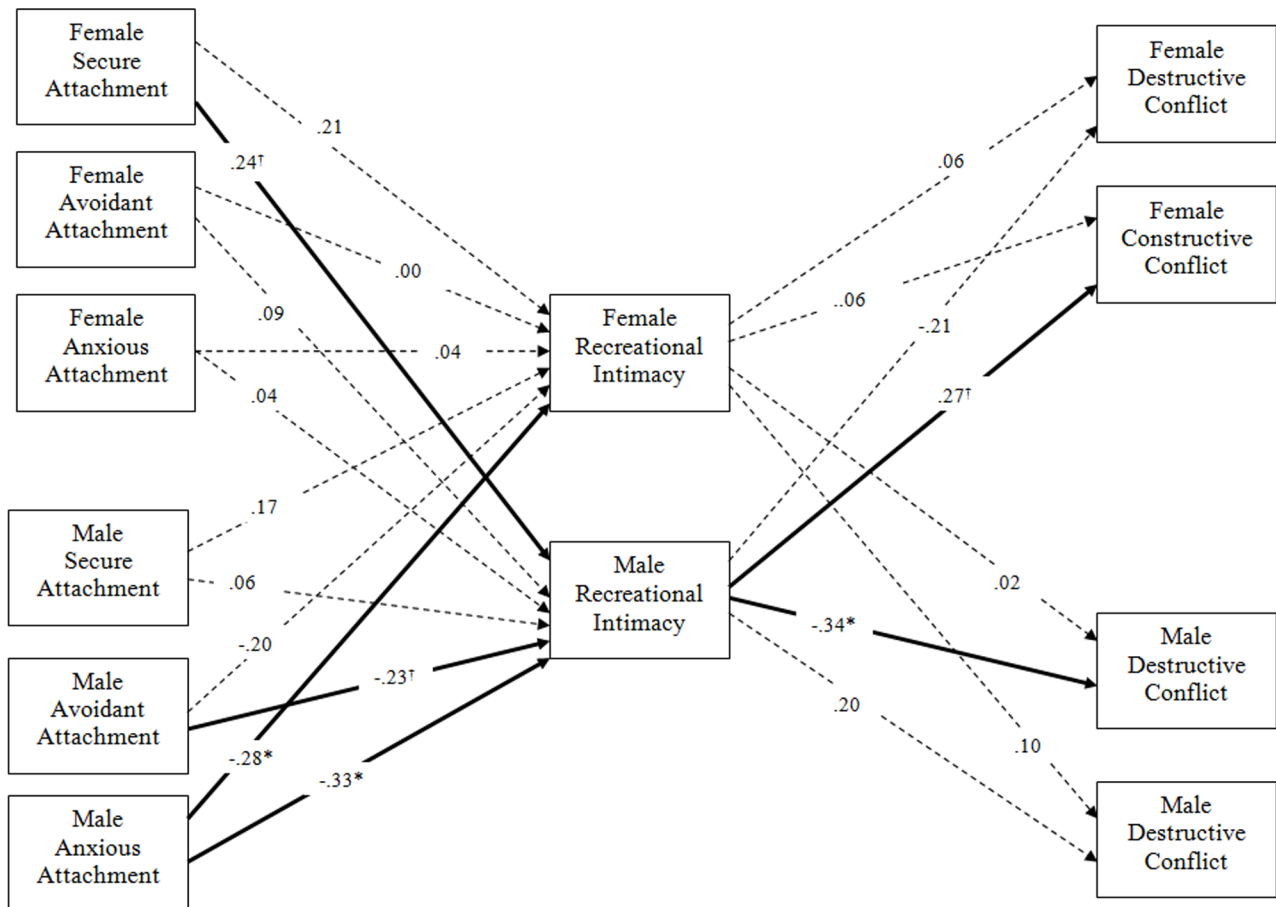


Figure 4. Couples' recreation intimacy mediating between attachment and conflict. * $p < .05$. ** $p < .01$. *** $p < .001$. † $p < .08$.

there were no significantly different actor and partner effects for women's versus men's attachment predicting recreational intimacy or for women's versus men's recreational intimacy predicting conflict.

Discussion

Extending previous work and consistent with our hypotheses, couples' emotional, intellectual, and recreational domains of intimacy were significant mediators in associations between attachment and conflict. Only social intimacy failed to mediate associations. Current theoretical perspectives on attachment and intimacy (e.g. Collins & Feeney, 2004) suggest the inability to successfully use one's partner as a secure base and source of comfort may over time erode the couples intimacy with one another (Campbell et al., 2005), which then leaves partners less sensitive to the impact of their behavior, less committed to working on their relationship, and thus decreases couples' ability to resolve their disagreements in healthy, constructive ways (Cummings & Davies, 2010). Our findings support these notions. Strong partner effects in each model suggest that couples may be engaging in attachment related behaviors that are off-putting (e.g. too clingy, self-disclosing, or distant) to their partners and decrease their partners' sense of closeness. Further, couples may then engage in behaviors which signal to their partner that they do not consider or desire for the relationship to be high in intimacy. In turn, partners may feel threatened by the distance, leaving them feeling unsafe to raise and explore conflictual issues in a well- modulated fashion, and instead respond

reactively by withdrawing or attacking their partner verbally. Social intimacy, which reflects a couples' connectedness around shared social interactions outside of their relationship (Schaefer & Olson, 1981), rather than a process between just the two partners, may be less important in couples' own relationship functioning. Social intimacy may be more related to other predictors and outcomes, such as strength of couples' social support networks, introversion vs. extroversion, or individual's well-being.

Interesting gender differences emerged regarding mediational pathways for couples' intimacy in associations between particular attachment styles and couples' conflict. In all models it was only men's intimacy that mediated pathways, not women's, except for emotional intimacy in which both partners' intimacy mediated. Thus, men's attachment styles and intimacy have both an individual as well as relational impact on couples. Women's sense of intimacy and conflict behaviors, on the other hand, might be less of an explanatory link in the association between attachment conflict for both themselves and their partners.

Interestingly men's, but not women's, anxious attachment played a particularly strong role in predicting their own as well as their partners' lower intimacy (save for male social intimacy), indicating significant actor and partner effects. This is partially consistent with previous work (Ruvolo & Fabin, 1999). Men's anxious attachment may have a more substantial association with how close a couple feels toward one another. Anxious attachment is characterized by clinginess, reassurance seeking, worry, and greater desire for intimacy than partners may want (Ainsworth et al., 1978). These behaviors are antithetical to common gender socialization practices and stereotypes for male behavior in the U.S. (Maccoby, 1998), and when exhibited by men may be particularly noxious to women, driving them to feel less close to their partners. Furthermore, the anxiousness men feel about their relationship security may erode or lead to doubting their own feelings of intimacy.

In our study, the effects on men's intimacy were associated with their own and their partners' conflict. In fact, save for emotional intimacy, none of the domains of women's intimacy were related to couples' conflict. We found that higher intimacy predicted more constructive and less destructive conflict, which is consistent with previous work (Sanderson & Karetsky, 2002). Men's intellectual intimacy played a particularly strong role in predicting couples' conflict. Previous findings indicate that men may feel most comfortable and productive when discussing ideas and thoughts, rather than emotions, whereas women may prefer more supportive, emotional discussions (Tannen & Aries, 1997). Men's ability comfortably express and receive thoughts and ideas seems to enhance couples' abilities to work through problems in healthy ways and to minimize destructive behaviors. On the other hand, how *emotionally* connected *women* feel towards their partner supports more constructive conflict. Thus men and women each positively contribute to couples' conflict resolution through different types of intimacy.

Contrary to our hypothesis, emotional processes did not show the greatest number of associations with attachment and conflict compared with the other intimacy domains. Couples' attachment styles were associated with each domain of women's intimacy, but emotional intimacy was the *only* type of intimacy for females that was related to conflict outcomes. Couples may benefit from women's emotional intimacy in particular, relative to other aspects of connectedness, by its role in creating an open atmosphere to exploring conflict at deeper levels and doing so in a constructive, emotionally-regulated fashion. Women's greater interpersonal orientation (Nolen-Hoeksema & Girgus, 1994) may in part explain the effects that women's emotional intimacy has on how couples interact during disagreements. Women, more often than men, tend to be relationship managers, creating strong perceptions and goals of emotional intimacy, which may result in women being especially invested in the romantic relationship and more motivated to work through conflict effectively (Creasey, 2002; Sanderson & Karetsky, 2002).

Limitations

Although this study has many strengths including examination of actor and partner effects, mediating relationships, and use of multiple dimensions of attachment and intimacy, there are also several limitations that should be noted. First, all data was collected concurrently, making it difficult to establish temporal order and the direction of effects. For example, couples' conflict behaviors may impact their attachment security and sense of intimacy. Future studies should examine these processes longitudinally. Second, the sample was relatively small and demographically homogenous. Couples tended to be relatively young in age and relationship length. Future work with larger samples is necessary to examine differences in these relationships within more diverse populations. Attachment was measured by self-report questionnaires and women's and men's secure attachment subscales had low Cronbach's alphas, and therefore may not be the most reliable subscales. Further examination of the specific items feeding into the security subscale revealed that the items are a mix of both positive secure qualities in relationships (e.g. I find it relatively easy to get close to others), as well as the absence of insecurity (e.g. I rarely worry about being abandoned by others). Equating security with both the presence of positive qualities of relationships as well as the absence of negative insecure qualities may have confounded the concept of security in the subscale, thus accounting for the lower reliability coefficients. Thus caution should be taken in interpreting the findings for secure attachment styles. Other instruments, such as clinical interviews using the Adult Attachment Interview, would enhance future studies. Finally, data was collected in a laboratory setting over a limited period of time, which may not fully represent couples' conflict behavior in other contexts.

Implications

Our results suggest that relationship intimacy is an important mediator linking couples' attachment to their own and their partners' conflict, which has important implications for research and clinical applications. Future work should examine potential moderators of these dyadic effects. For instance, depression symptoms may strengthen associations between couples' attachment insecurity and sense of intimacy or between intimacy and conflict (Marchand, 2004). Clinicians working with couples should educate their clients about how dyadic effects may play a role in their relationship interactions; for example, one client may perceive lack of intimacy to be a problem, and this perception may be in part influenced by the behaviors of their insecurely attached partner. Clinicians should also consider intervening upstream of conflict behaviors themselves by focusing on fostering couples' secure attachment and intimacy, especially men's, as it shows the most substantial associations with couples' conflict. Therapeutic activities that serve to increase intimacy beyond just emotional intimacy are important, including encouraging discussions of ideas for fun and increasing shared positive hobbies.

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