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Linking hearts and minds in couple interactions:

Intentions, attributions and overriding sentiments

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Linking hearts and minds in couple interactions: Intentions, attributions and overriding sentiments

#### Abstract

This study examined the role of emotion and relationship satisfaction in shaping attributions about a partner's intentions in couple interactions. Using video recall, participants (*n*=156 couples) reported on their own and their partners' intentions and emotions during affective moments of a discussion about an upsetting event. Links were found between relationship satisfaction and factor-analytically derived intention and attribution scales. Attributions about a partner's intentions were weakly to moderately correlated with the partner's self-reported intentions. Relationship satisfaction accounted for part of the discrepancy between self-reported intentions and partner attributions. Emotions mediated the links between relationship satisfaction and attributions, suggesting that clinicians working with distressed couples should pay more attention to the emotional climate in which attributions are made.

Key words: emotion, attribution, couple interaction, intentions, video recall, sentiment override

John: "You hurt my feelings."

Mary: "I didn't intend to hurt your feelings. I was just trying to tell you how I felt."

Intentions are frequently the focus of attention in couple interactions, particularly when conflict is involved. One partner's appraisals of the other's typical intentions in the relationship – that is, one partner's *attributions* about the other's intentions – have been linked consistently with relationship satisfaction in past studies (Bradbury, Fincham, & Beach, 2000; Fincham, 1994). Much, however, remains unknown about the mechanisms responsible for these links. Research has typically focused on relatively stable attributions and relationship qualities, and less is known about how attributions may vary with more fleeting psychological factors such as emotions that arise in the course of couple interactions.

In this study, we seek to improve our understanding of the nature, determinants and correlates of momentary attributions about a partner's intentions. To do this, we begin by examining the intentions that individuals report in actual couple interactions. We investigate how closely one's own reported intentions in an interaction match a partner's attributions about those intentions. We examine affective processes that might influence attributions in the ebb and flow of couple interaction and explain why self-reports of intentions and partner attributions about these intentions do not always match. The Sentiment Override Hypothesis (Weiss, 1980) suggests that partners' global feelings of affection or disaffection for one another, as indexed by relationship satisfaction, influence the way they interpret and describe each other's communications and behavior. We investigate this hypothesis and extend it to consider whether emotions generated in couple interactions mediate the link between relationship satisfaction and attributions about a partner's intentions.

Attributions in Close Relationships

Research on attributions in intimate relationships typically focuses on judgments about a partner's role in or responsibility for negative events or difficulties in a relationship. These judgments are believed to have real-world effects, as supported by studies linking attributions to behaviors during couple interactions (Bradbury & Fincham, 1992; Miller & Bradbury, 1995). Initially, researchers posited a particular direction for the link between negative attributions and relationship satisfaction – specifically, that negative attributions lead to decreased satisfaction (Fincham & Bradbury, 1987). This perspective strongly influenced subsequent research and guided marital therapists to devise strategies to enhance relationship quality by identifying and modifying patterns of negative attributions (Baucom & Lester, 1986; Baucom, Sayers, & Sher, 1990). Recently, investigators have developed more complex models that posit reciprocal influences between relationship satisfaction and attributions (Fincham, Harold, & Gano-Phillips, 2000; Johnson, Karney, Rogge, & Bradbury, 2001; Karney & Bradbury, 2000).

Most research has examined attributions as a style or trait that reflects enduring aspects of the perceiver, the partner, or the relationship (Karney & Bradbury, 2000). For example, one of the most widely used tools for assessing attributions – the Relationship Attribution Measure (Fincham & Bradbury, 1992) – asks respondents to consider a number of hypothetical partner behaviors such as, "Your partner criticizes something you say." For each behavior, respondents are asked to address, among other things, the degree to which the negative behavior would be likely to be perpetrated intentionally. Responses are thought to represent enduring patterns of attribution – that is, the way that an individual typically interprets the other's intentions.

In the few longitudinal studies that do focus on changes in attribution, the intervals between assessments are typically on the order of months or years (e.g., Karney & Bradbury, 2000). The longitudinal focus in these studies provides a better opportunity to understand the processes that may shape or be shaped by attributions. However, measurement intervals on the order of months or years still preclude an understanding of how shorter-term processes, such as emotions experienced in the context of interactions, might influence attributions (McNulty & Karney, 2001). In this study we examined momentary attributions about a partner's intentions and how they related to emotions experienced in the same interaction.

#### Interpersonal Intentions

There is a longstanding tradition in personality research that emphasizes the role of motivational constructs, such as personal goals or intentions, in shaping behavior (e.g., Allport, 1937; Murray, 1938). Modern functional theories of emotion also emphasize the critical role of personal goals in shaping emotional reactions and coping responses in emotional contexts (Schulz & Lazarus, in press). Although referred to using different terms, intentions are generally conceptualized as part of a larger motivational system that has a complex hierarchy. The levels of this hierarchy range from broad abstract goals such as finding meaning in life, to situationally specific goals such as trying to prove your point in an argument (Emmons, 1999). In this study, we focus on the lower level of the goal hierarchy by trying to assess the specific intentions individuals have during actual interactions with their partners. We use the term intentions because it conveys the fleeting and potentially situation-specific nature of what we are interested in more accurately than other terms such as "motives." Examples of such intentions include managing emotion, preserving self-worth, and protecting an important relationship (Laux & Weber, 1991; Neuberg, 1996).

Although individuals may not always be conscious of their intentions in the moment, past research suggests that people can access awareness of important personal intentions if given appropriate structure and appropriate time to reflect (Emmons, 1999; Fitzsimons & Bargh, 2003). Individuals are likely to be guided by a number of intentions in a specific situation, and some intentions may be more accessible to awareness than others. Moreover, situational demands or constraints may prevent some intentions from being realized. So, for example, one may have the intention to respond positively to constructive criticism from a partner but may in fact respond angrily because of other intentions or because of situational demands that make it hard to respond positively. For these reasons, it is important to note that reports of intentions tell us something about what a person believes he or she was striving to do in a particular situation but may not reflect all of the person's intentions nor how that individual actually behaved. *Assisting Recall of Intentions and Attributions* 

Despite a rich body of theoretical and empirical work suggesting that one's own intentions shape behavior in social contexts (Allport, 1937; Fitzsimons & Bargh, 2003; Jacobson & Christensen, 1996) there has been little research on intentions in couple interactions, or on how those intentions are related to partner attributions.<sup>1</sup> This may stem in part from investigators' legitimate concerns about the validity of self-reports in this domain. The accuracy of self-reports may be compromised by the fact that some aspects of intentions occur outside of full awareness (Fitzsimons & Bargh, 2003; Nisbett & Wilson, 1977). In addition, some individuals are reluctant to disclose information that may be viewed as socially undesirable. However, concerns about the validity of self-reports must be balanced against the reality that intentions cannot truly be assessed by any other means. Another reason for the paucity of research may be the methodological challenges of assessing intentions within actual interactions. It is difficult to obtain self-reports about anything during couple interactions without interrupting the flow of the discussion (Gottman & Levenson, 1985).

Video recall techniques (Schulz & Waldinger, 2004; Welsh & Dickson, 2005) present a

promising tool for helping researchers obtain valid reports of intentions and attributions in the context of an actual interaction. These techniques involve asking participants to engage in a videotaped interaction and then review the videotape to report on their experience. Video recall methods have been employed by investigators to study a wide range of phenomena, including interpersonal understanding and communication (Sillars, Roberts, Dun, & Leonard, 2001), affective experience and relationship functioning (Levenson & Gottman, 1985; Schulz & Waldinger, 2004) and parent-child relationships (Powers, Welsh, & Wright, 1994). The video recall method used in the present study is designed specifically to capture perceptions of momentary intentions and emotions during affectively salient moments of a couple interaction.

Because individuals are likely to be guided by a wide range of intentions in couple interactions, researchers must make choices about what kinds of intentions to investigate. Observational research on couples points to the importance of behaviors related to affiliation, power, and the regulation of emotions (e.g., Floyd, 2004; Gottman, 1994; Heyman, Weiss, & Eddy, 1995; Waldinger, Schulz, Hauser, Allen, & Crowell, 2004); and we decided to examine intentions related to these behaviors. Similar kinds of intentions have been investigated in recent studies examining motives guiding behavior in emotionally challenging circumstances (Timmers, Fischer, & Manstead, 1998). We also assessed intentions (e.g., "trying to get my partner to understand my point of view") that were related to the particular task given to the participants in this study, which was to explain their perspectives on what occurred during an incident that upset one of the partners.

#### Linking attributions and intentions: Relationship satisfaction and overriding sentiments

In this paper we explore one model of how relationship quality could influence attributions in the heat of couple interactions. This model builds on the *Sentiment Override Hypothesis*  (Weiss, 1980), which emphasizes that global feelings of affection or disaffection in a relationship shape the way partners interpret and describe each other's behavior. Research supports the hypothesis that how individuals feel about their relationships shapes their interpretations of their partners' behaviors during couple interactions. Unhappily married individuals are more likely than satisfied individuals to rate their partners' behaviors negatively and/or to fail to perceive their partners' positive behaviors even after accounting for the observed positivity or negativity of the behaviors (Hawkins, Carrere, & Gottman, 2002; Notarius, Benson, Sloane, Vanzetti, & Hornyak, 1989).

Fincham and colleagues (Fincham, Garnier, Gano-Phillips, & Osborne, 1995) tested the applicability of the Sentiment Override Model to understanding expectations that individuals hold about the likelihood that their partners will behave in negative or positive ways in upcoming interactions. They found links between an individual's emotional state prior to a marital interaction and his or her expectations about a partner's likely behavior in the interaction. Fincham et al. (Fincham et al., 1995) also found evidence that these expectations and pre-interaction emotions were linked to overall relationship satisfaction. In the current study, we aimed to build on this research. We focused, however, on attributions, intentions, and emotions *during* interactions rather than expectations and emotions prior to interactions. We also extended this prior work by studying these phenomena with a sample that includes greater numbers of couples at risk for relationship distress and dissolution.

Building on the Sentiment Override Hypothesis, we posited that (1) relationship satisfaction would account for part of the discrepancy between an individual's momentary intentions and the partner's attributions about those intentions, and (2) emotions experienced in the couple interaction would mediate the link between relationship satisfaction and these attributions. Attributions about a partner's intentions during emotionally charged moments of discussions are particularly likely to be important to relationship satisfaction. For this reason, we chose to study intentions and attributions during the most affectively intense moments of discussions of an upsetting relationship event.

#### Study Goals

The study reported here had the following specific aims: (1) to use a video recall method to identify intentions and attributions commonly reported during affectively salient moments of difficult couple interactions; (2) to investigate the degree to which individuals' attributions about their partners' intentions during couple interactions match their partners' stated intentions; (3) to examine links between relationship satisfaction and self-reported momentary intentions, and between relationship satisfaction and momentary attributions about one's partners' intentions; and (4) to explore the how relationship satisfaction and emotions arising in couple interactions shape individuals' attributions about their partners' intentions.

#### Method

#### **Participants**

Heterosexual couples (*n*=156) recruited from the community participated in a study of couple communication. We focused recruitment efforts on obtaining a sample that was diverse with respect to levels of functioning, relationship history and status, and socioeconomic background. In terms of levels of functioning, a guiding priority was to sample couples who were likely to vary in the ways they resolved conflicts and regulated emotions. To facilitate these sampling goals, we recruited in two locations using complementary strategies. In Boston, recruitment focused on younger, urban, ethnically and socioeconomically diverse couples in committed (but not necessarily married) relationships, with oversampling of couples with a

history of domestic violence or childhood sexual abuse. In Bryn Mawr, recruitment focused on older, suburban, more stable, middle-class, married couples with strong ties to the community.

In Bryn Mawr, 57 married couples were recruited through faith-based institutions in the western suburbs of Philadelphia using advertisements and newsletter postings. Equipment difficulties with 3 of the Bryn Mawr couples reduced this sub-sample to 54 for the analyses presented in this paper. In Boston, eligible couples were required to be living together in a committed relationship (but not necessarily married) for a minimum of 12 months. Recruitment was conducted through advertisements in the Boston metropolitan area. Couples in the Boston cohort were recruited into four groups of approximately equal size - those in which the woman had a history of childhood sexual abuse (n=31), those in which the man reported recent physical violence toward his partner (n=28), couples in which both conditions were reported (N=23), and couples who reported neither condition (n=27). Those who responded to advertisements were assessed for eligibility for one of the four groups with two commonly used screening instruments for sexual abuse and physical violence: the Childhood Trauma Questionnaire (CTQ, Bernstein et al., 1994) and the Revised Conflict Tactics Scales (CTS2, Straus, Hamby, Boney-McCoy, & Sugarman, 1996). Seven of 109 Boston couples did not complete the full protocol, reducing the subsample to 102 for this study. Small amounts of missing data (at most n = 5) on particular variables reduced the total sample size for some analyses.

Recruitment efforts were successful in sampling a diverse population of couples. As expected, the Boston participants were younger, less educated, earned lower incomes, were in relationships of shorter length and were more ethnically diverse. In the Boston subsample, the mean age for men was 33.2 years (SD = 8.8) and for women was 31.7 years (SD = 8.5). The median length of relationship for the couples was 1.9 years (range = 0.4 -30), 33.3% were

married and 78.2% did not have children. The ethnic make up of the sample was 58.4% Caucasian, 29.0% African-American, 7.8% Hispanic, 3.0% Asian or Pacific Islander, and 2.0% Native American. The median family income per year was between \$30,000 and \$45,000 with 19.3% of participants indicating that their family earned less than \$15,000, and 26.0% indicating that they earned more than \$60,000. Participants varied widely in their educational experience: 46.0% of participants had completed bachelor's or more advanced degrees, 15.7% had some post high-school education (vocational, some college or an associates degree), and 29.4% had a high school education or less.

In the Bryn Mawr subsample, the mean age for men was 43.3 years (SD = 11.5) and for women was 40.7 years (SD = 9.1). The average length of relationship for the couples was 13.2 years (SD=10.4), 100% were married, and 83.3% had children. The ethnic make up of the sample was 94.4% Caucasian, 3.7% Hispanic, and 1.9% Asian or Pacific Islander. The median family income per year was between \$80,000 and \$100,000. Most participants (81.5%) had completed bachelor's or more advanced degrees; only 11.1% had a high school education or less. *Procedure* 

Prior to engaging in the couple interaction task and video recall procedure, each member of the couple completed demographic information and a relationship satisfaction measure. In the interaction sessions, participants were asked independently to identify an incident in the last month or two in which their partner did something that frustrated, disappointed, upset, or angered them. Each participant recorded on audiotape a one- or two-sentence statement summarizing the incident and reaction. The couple was then brought together and, in counterbalanced order, discussed one incident identified by the man and one identified by the woman. The audiotaped summary of each incident was played to initiate discussions, and participants were told to discuss the identified incidents and to try to come to a better understanding of what occurred. In Boston, the discussions lasted 8 minutes, and in Bryn Mawr they lasted 10 minutes. Discussions took place in a room in which participants sat facing each other in front of a one-way mirror. Participants were aware that they were being videotaped.

The video recall procedure consisted of two phases (see details in Schulz & Waldinger, 2004). Phase I employed a strategy used in marital interaction research by Levenson and Gottman (1983). Participants viewed the videotape of their interaction and continuously rated their emotional negativity/positivity during the interaction using an electronic rating device designed for this study. The device has a knob that moves across an 11-point scale that ranges from very negative to very positive with a neutral point in the center. The knob is attached to a series of mechanical springs and pulleys that return the knob to the center point ("neutral") if released and that apply increasing tension as the participant moves it further from the center in either the positive or the negative direction. This increased tension provides feedback to the participant about the positioning of the knob. Past research has established the validity of this and similar video recall procedures for obtaining reports of affective experience (e.g., Gottman & Levenson, 1985; Ickes, Stinson, Bissonnette, & Garcia, 1990; Schulz & Waldinger, 2004; Thomas, Fletcher, & Lange, 1997).

Based on participants' ratings from the first phase of the video recall procedure, six High Affect Moments (HAMs) were selected for each couple. These included the two 30 second segments from each discussion identified by each partner as most emotionally negative, yielding a total of four negative HAMs (two rated as most negative by her and two by him). In addition, the 30-second segment across both interactions that was rated as most positive by each partner was selected, yielding two positive HAMs for the couple. Participants were shown the six HAMs in order of occurrence during the discussion. After viewing each HAM, participants completed questionnaires about their own and their partners' intentions and feelings during the segments. *Measures* 

Self-reported intentions and attributions about a partner's intentions. Participants were asked to rate how much they were trying to achieve each of a set of 14 goals and how much they felt their partner was trying to achieve those goals. To identify meaningful groupings of the intentions and of the attributions about these intentions for later analysis, we conducted factor analysis. We used principal components analysis as a first step in identifying the number of meaningful factors underlying the 14 intentions and 14 attributions (Tabachnick & Fidell, 1996). We followed up this initial analysis with principal axis factoring. In both cases we used orthogonal rotation with varimax criterion. Results were similar across the two approaches. We examined the degree to which the factor structure was similar across all 24 reports gathered during the 6 HAMs. These reports differed as to whether they were from the male partner's or female partner's most positive or most negative moment (type of moment = 6), whether they were reports by men or women (gender = 2 types), and whether they were self-reports about one's own intentions or attributions about a partner's intentions (intentions vs. attributions = 2types), for a total of 6 X 2 X 2 = 24 HAM reports. Eigen values greater than 1 were generally used to determine the number of factors for each of the factor analyses, unless an examination of the inflection point in the Scree plot indicated that an alternative criterion was more appropriate.

While there were minor differences among the 24 separate factor analyses, there was remarkably consistent support for a four-factor solution. One intention ("I was trying not to hurt my partner"/"My partner was trying not to hurt me") did not load clearly on any one factor and was therefore omitted. All other variables loaded strongly on only one factor. The factors that emerged represented intentions that we intended to sample related to power, affiliation, emotion regulation, and explaining one's perspective. Factor 1, which we labeled "Facilitate," included the following intentions: trying to understand me/partner, trying to bring us closer together, trying to get me/partner more involved, trying to lighten things up. Factor 2 ("Control Emotion") included the following variables: trying to calm self down, trying not to appear weak, trying to calm partner down, trying to control my/(his or her) anger. Factor 3 ("Dominate") included trying to put my partner/me down, trying to get my partner/me mad, and trying to get my partner/me to back off. For ratings of partner intentions, this factor also included "my partner was only looking out for him/herself." Factor 4 ("Explain") included trying to justify my/his or her perspective, and trying to get my partner to understand my point of view.

Individual scale scores for each participant were derived by taking the mean of all items on that factor. Examination of the distributions of all the scales revealed positive skew for the Control Emotion and Dominate scales. Following procedures recommended by Tabachnick & Fidell (1996), we transformed the Control Emotion variable using the formula  $x^{1/3}$ , and the Dominate variable using the formula 1/x, which resulted in more normal distributions for these variables. Alpha coefficients for the four scales for both intentions and attributions ranged from .51 to .76 across the six affectively charged moments (HAMs) and across gender, with an average of .67, indicating adequate internal reliability. To improve reliability, analyses in this paper used overall intention (or attribution) scale scores that were derived by averaging intention (or attribution) scale scores across the six HAMs for each participant.

*Emotional balance*. Participants were asked how much they were feeling each of a set of 14 emotions during each HAM segment (Schulz & Waldinger, 2004). Principal components analyses yielded three emotion scales: Angry, Sad/Vulnerable, and Happy.<sup>2</sup> The overall balance

between positive and negative emotions across the six HAMs was calculated for all participants using these three emotion scales. Emotional Balance was derived by subtracting the mean of each participant's z-scores on the two negative emotion scales (Sad/Vulnerable, Angry) from the Happy scale z-score. For men, Emotional Balance Scores ranged from -3.63 to 4.00 (mean = 0), for women scores ranged from -3.92 to 3.59 (mean = 0). Previous research has found that the overall balance of positive and negative affectivity in couple interactions predicts relationship stability and functioning (Gottman, 1998; Katz & Woodin, 2002).

*Relationship satisfaction.* The Locke-Wallace Marital Adjustment Test – Short Form (MAT) (Locke & Wallace, 1959) was used to measure relationship satisfaction. The MAT is a widely-used 15-item self-report measure with scores ranging from 0 to 158. The measure has demonstrated good internal reliability, test-retest stability, and discriminant validity (Freeston & Plechaty, 1997). We used a version of the instrument suitable for people in committed relationships rather than just marital relationships, and we used a revised scoring system to remove gender bias in two of the items (Freeston & Plechaty, 1997). Scores below 100 are generally thought to be indicative of clinically significant relationship distress (Gottman, 1994). The men and women in this sample reported a mean satisfaction level of 106.3 (SD = 28.7) on the MAT. A significant proportion of the overall sample (38%) reported satisfaction scores in the clinically distressed range. As expected, couples in the Boston subsample were significantly less satisfied with their relationships than couples in the Bryn Mawr subsample.

#### Results

We began by examining the intentions and attributions reported by participants during video recall of their interactions. We then examined links between self-reported intentions and partners' attributions about those intentions, and between relationship satisfaction and self-

reported and partner-perceived intentions. Because the procedures in the Boston and Bryn Mawr sites differed slightly, and the samples differed in important ways, we looked for possible differences across the two samples in the connections between key study variables. In preliminary analyses using data from both sites, linkages between intentions and partner attributions and between relationship satisfaction and intentions or attributions were examined using multiple regression analyses that incorporated a product term representing the interaction of site (Boston or Bryn Mawr) with the predictor of interest (i.e., intentions or relationship satisfaction).<sup>3</sup> Only 1 of 24 interaction terms was significant, indicating extraordinary consistency in the nature of the relationships across the two samples. Given this consistency, all further analyses were conducted on the combined sample. We present the results of simpler zero-order correlations examining the links described above (see Table 1).

To investigate whether relationship satisfaction and emotions arising in couple interactions were linked to discrepancies between attributions about a partner's intentions and the actual intentions, we used multiple regression analyses. We controlled for a partner's stated intention when examining whether relationship satisfaction and emotions predicted attributions about that intention. In effect, the outcome of interest in these analyses was the residual variance in attributions after accounting for a partner's stated intentions. We followed procedures recommended by Baron and Kenny (1986) for testing whether emotions in the interaction mediated any links found between relationship satisfaction and attributions. *Intentions Reported By Individuals and Perceived By Their Partners* 

Participants reported that they were trying hardest during the couple interactions to Explain their perspectives, followed by trying to Facilitate the discussion (see Figure 1 for means and standard errors for all scales). They reported much less intention to Control Emotion and Dominate the interaction. Attributions about partners' intentions followed a similar pattern. Twoway repeated measures ANOVAs were conducted to examine differences between male and female partners in their reports of intentions, as well as differences between self-reports of intentions and partner attributions about those intentions. For all four types of intentions, there was a main effect for self-reported intentions vs. attributions about partner intentions, Control Emotion: F(1, 150) = 11.7, p = .001; Facilitate: F(1, 150) = 49.9, p < .001; Dominate: F(1, 150) =54.4, p < .001; and Explain: F(1, 150) = 12.8, p < .001. Both men and women saw themselves as trying harder than their partners to Facilitate and to Explain, and they saw their partners as trying harder to Control Emotion and to Dominate. There was also a gender main effect for Control Emotion, F(1, 150) = 7.0, p = .009, Facilitate , F(1, 150) = 6.5, p = .01, and Dominate, F(1, 150) =4.5, p = .04. Women generally reported less motivation to Control Emotion, to Facilitate, and to Dominate; and they saw their partners as having less strong intentions in each of these areas. *Links between Self-Reported Intentions and Partner Attributions*.

Participants' reports of their intentions and partners' ratings of those same intentions were generally correlated at a weak to moderate level, indicating some consistency but also some divergence between attributions and the intentions reported by the partners. Men's self-reported intentions were correlated with women's attributions about these intentions as follows: Facilitate r(151) = .10, p = .25; Control Emotion r(151) = .35, p = <.001; Dominate r(151) = .18, p = .03; and Explain, r(151) = .22, p = .006. Women's self-reported intentions were linked with men's attributions about partner intentions: Facilitate r(151) = .26, p = .001; Control Emotion r(151) = .34, p < .001; Dominate r(151) = .25, p = .002; and Explain, r(151) = .15, p = .07. *Motivational and Attributional Correlates of Relationship Satisfaction* 

Pearson correlations (see Table 1) indicate that men who were more satisfied in their

relationships reported significantly greater intent to Control Emotion and to Explain. There were no significant links between men's reports of trying to Facilitate or to Dominate and their relationship satisfaction. Women who were more satisfied in their relationships reported significantly greater intent to Facilitate and less intent to Control Emotion and to Dominate. There was no significant link between women's reports of trying to Explain and their relationship satisfaction. Men and women who were more satisfied in their relationships saw their partners as trying harder to Facilitate, and as trying less to Control Emotion and to Dominate. There was no significant link between men's or women's relationship satisfaction and their reports of how much they saw their partners as trying to Explain.

### Extended Sentiment Override Model of Attribution Influence

We tested an extended sentiment override model of attribution influence in which (1) relationship satisfaction accounts for some of the discrepancy between an individual's intentions and the partner's attributions about those intentions, and (2) emotions experienced in the interaction mediate the link between relationship satisfaction and attributions about a partner's intentions after controlling for the partner's self-reported intentions. For a variable to be considered a possible mediator, it must meet two conditions (Baron & Kenny, 1986); it must be correlated with the predictor (relationship satisfaction) and it must be correlated with the outcome under consideration (the four attribution scales). Meeting the first condition, more positive Emotional Balance scores were significantly correlated with greater relationship satisfaction: for men, r(154) = .44, p < .001; for women, r(154) = .54, p < .001. Regarding the second condition, an individual's Emotional Balance score was correlated with his or her attributions about a partner on three of the four scales for both men and women.<sup>4</sup> More positive Emotional Balance scores were correlated with attributions about a partner's intentions to

Facilitate (men: r(154) = .49, p < .001; women: r(153) = .46, p < .001), Control Emotion (men: r(154) = -.45, p < .001; women: r(153) = -.48, p < .001), and Dominate (men: r(154) = -.54, p < .001; women: Dominate r(153) = -.56, p < .001) but were not linked to attributions about a partner's intentions to Explain (men: r(154) = .02, p = .86; women: r(153) = -.002, p = .98). These significant correlations combined with those reported above between relationship satisfaction and attributions indicated that testing our mediational model was warranted.

Separate hierarchical regression analyses were conducted for attributions about each of the three types of intentions that were significantly linked to relationship satisfaction, resulting in three analyses for each gender. In step 1, the relevant self-reported intention scale was entered to examine the influence of relationship satisfaction and Emotional Balance on attributions after accounting for the variance associated with the self-reported intention. Relationship satisfaction was also entered at step 1. The partner's Emotional Balance score was entered at step 2 to examine the effect of its inclusion on the regression coefficient for relationship satisfaction.

After controlling for the influence of the relevant self-reported intention, relationship satisfaction remained a significant predictor (in the same direction) of attributions in 5 of the 6 models (see Table 2). This indicates that relationship satisfaction explains part of the lack of correspondence between self-reported intentions and partner attributions about those intentions. In all five of the regression analyses for which relationship satisfaction had been a significant predictor, the addition of the Emotional Balance variable in step 2 reduced the regression coefficient indexing the link between relationship satisfaction and attributions to nonsignificance. In each case, Emotional Balance was a significant and strong predictor (standardized  $\beta$ 's ranged from .37 to .57 in the expected direction) of the attributional outcome under consideration. These results provide strong evidence that Emotional Balance mediates the links between relationship satisfaction and the Facilitate and Dominate scales for both men and women, and the Control Emotion scale for women.

#### Discussion

This study was designed to improve our understanding of the nature, determinants and correlates of momentary attributions about a partner's intentions. We used a video recall method to assess intentions and attributions in affectively charged moments of couple interactions. We examined how closely self-reported intentions match a partner's attributions about those intentions, and we investigated affective processes that might explain discrepancies in these reports. Specifically, we tested an extension of the Sentiment Override Hypothesis which posits that attributions about a partner's intentions during affectively salient interactions are shaped by one's own relationship satisfaction and by one's own emotions experienced in the interaction. *Intentions and Attributions in Affectively Salient Moments of Couple Interactions* 

The intention and attribution scales that emerged from principal components analysis of the data reflected dimensions identified in previous research as important in couple functioning – power (Dominate), affiliation (Facilitate), and emotion regulation (Control Emotion). The additional Explain scale included elements that one would anticipate in a couple discussion where the task was to arrive at better mutual understanding of an upsetting relationship event. The factor structure was remarkably consistent across gender, across the types of high affect moment (e.g., most positive vs. most negative moment), and across self-reported intentions and reports about a partner's intentions (attributions). This consistency suggests that these dimensions of intentions and attributions are robust and are likely to be of use in future research.

Reflecting the instructions about achieving better understanding during the couple interaction task, participants reported that they were more strongly motivated to Explain and to

Facilitate than to Dominate and to Control Emotion. Participants saw themselves as being more motivated than their partners to Explain their position and to Facilitate the discussion, and they saw their partners as trying harder to Dominate and to Control Emotion. This pattern may be an indication that participants perceived facilitating and explaining as more socially desirable intentions than controlling emotion and dominating the interaction. There were also gender differences in reported intentions and attributions. Compared with women, men generally saw themselves and their partners as trying harder to Control Emotion, to Dominate and to Facilitate. Pending further research, it is important to be cautious about these gender differences, which were small and might simply reflect differences in how men and women used the Likert scales.

The results of this study indicate that individuals can, to a certain extent, identify their partners' intentions during heated moments of interactions. However, the weak to moderate correlations between self-reported intentions and partner attributions about those intentions suggest that other factors play a role in shaping momentary perceptions of a partner's intentions. Similarity in the strength of the correlations across gender indicates that the match between self-reported intentions and partner perceptions of intentions was similar for men and women. *Motivational and Attributional Correlates of Relationship Satisfaction* 

Participants' momentary intentions and attributions were consistently linked to their relationship satisfaction. These findings mirror the links found in prior research between more global measures of stable attribution patterns and relationship satisfaction. Women's momentary intentions to Facilitate and to Dominate and both men's and women's attributions about their partners' intentions to Facilitate and to Dominate were linked to relationship quality in the expected ways. In the context of the couple interaction task studied here, attributions about a partner trying to Facilitate or to Dominate may be similar to the more commonly assessed global attributions about whether a partner's behavior in general is motivated by consideration of the other partner's needs or by selfish concerns (Fincham & Bradbury, 1992).

The fact that Control Emotion was the most consistent correlate of relationship satisfaction for both men and women in this study is not surprising given the often replicated finding that emotions are strongly related to couple functioning (Gottman, 1994; Waldinger et al., 2004). However, for both self-reports and attributions, trying harder to Control Emotion was linked to greater *dissatisfaction* in the relationship. Although emotion regulation is often considered a critical skill in relationship functioning, controlling or dampening one's emotion is not the only way to regulate emotion (Schulz, Waldinger, Hauser, & Allen, 2005). Wanting to dampen one's own and a partner's emotions may be most reflective of underlying and discomforting distress in the individual partners or in the relationship. In fact, self-reports of the intention to Control Emotion were highly correlated with a more negative balance of emotions experienced in the couple interaction (r = -.53, p < .01 with Emotional Balance for both men and women), suggesting a strong link between this intention and negative emotional arousal.

## The Extended Sentiment Override Model of Attributional Influence

Relationship satisfaction accounted for a significant amount of the residual variance in attributions after controlling for partners' self-reported intentions. This finding is consistent with past research and supports the idea that global satisfaction or dissatisfaction with a relationship may influence the way we interpret and describe a partner's intentions (Hawkins et al., 2002; Notarius et al., 1989). Our assessment of momentary emotions experienced at the same time as the reported attributions allowed us to look more closely at this linkage. We found that the link between relationship satisfaction and attributions was fully mediated by these momentary emotional experiences. These findings support the Sentiment Override Hypothesis and strongly

suggest that relationship satisfaction affects attributions through its impact on the balance of emotions that individuals feel during interactions with their partners.

These findings have implications for how clinicians work with distressed couples. Interventions to help partners identify and modify patterns of distorted attributions about one another are central to many approaches to couple therapy. This study suggests that it is important to pay attention to the emotional climate in which attributions are made, in order to understand how overall relationship satisfaction and momentary feelings may shape attributions and make them more resistant to modification. Addressing emotions in cognitive approaches to couples therapy may be essential for bringing about change in patterns of distorted attributions that would otherwise resist modification.

#### Methodological Considerations, Limitations, and Directions for Future Research

The couple interaction task used in this study helped facilitate the study goals in at least two ways. Discussion of an event in which one partner did something to upset the other tends to elicit concerns about intentions (e.g., selfishness, malicious intent) that are central to attribution theories. In addition, talking about recent specific events and transgressions (as opposed to more general areas of conflict such as "money" or "housework") is likely to stimulate significant emotional reactions, and we focused on the moments of the interaction that elicited the strongest affect (for more details, see Schulz & Waldinger, 2004). This strategy allowed us to measure intentions and attributions in emotionally salient situations and to see how these phenomena may be shaped by the emotional climate of an interaction. People often make important judgments about a partner's intentions while in the midst of heated discussions about particular events. Compared with attributions about a partner made in more emotionally neutral situations (e.g., when filling out a questionnaire at home alone), these judgments may be more representative of the kinds of judgments that underlie distress in intimate relationships.

The number and diversity of couples included in our sample is an important strength of this study. Couples were recruited using different methods at two sites, resulting in a combined sample that varied widely in relationship satisfaction and demographic backgrounds. Based on reports of their relationship satisfaction, more than a third of the sample were in the clinically distressed range. The main connections found in this study among intentions, attributions, emotions and relationship satisfaction did not differ across the two sites suggesting that these linkages are robust and are likely to apply to a wide range of couples. Even though our analyses indicate that the core processes investigated in this study operate similarly in the two subsamples, future analyses might take fuller advantage of the diversity of the sample. For example, it would be useful to explore whether the experience of abuse in childhood has a biasing effect on one's perceptions of an intimate partner's intentions. Despite the advantages of using a diverse sample, the fact that subgroups within the sample were recruited for specific characteristics dictates caution in making assumptions about the generalizability of our results to the general population of couples.

This study also has several limitations that are important to bear in mind, particularly in the planning of future research. First, our sentiment override model of attributional influence implies a certain direction of effects – namely, that relationship satisfaction influences moment-to-moment emotional experience during a couple interaction and in this way shapes attributions about a partner's intentions. It is likely that relations among the three constructs are more complex. As noted earlier, some prior research suggests that attributions influence relationship satisfaction, and other work supports the theory that the influence is bidirectional (Fincham et al., 2000). We do not mean to imply that unidirectional models are sufficient to explain the relations

among these variables. Rather, our results highlight the phenomenon of sentiment override as shaping perceptions of a partner's intentions – a theory that has been underrepresented in research on attributions in intimate relationships. Indeed, new findings in neuroscience support this direction of influence. Researchers have begun to elucidate both the anatomical pathways and physiological processes by which affect shapes cognition (Adolphs & Damasio, 2001).

We do not claim to have identified all of the intentions that are important in couple interactions. Nevertheless, the results of this study suggest that we have identified dimensions of intentions that are relevant to the study of intimate relationships. The consistent findings linking relationship satisfaction to the intention and attribution scales in expected directions, and the consistent links between self-reported intentions and partner attributions about those intentions provide support for the validity of these scales. Our findings suggest that with the facilitation of video recall, individuals are able to report on some of the intentions that guide their behavior in interpersonal situations. Future research should examine the extent to which reported intentions are linked to actual behaviors that reflect those intentions during couple interactions.

We used a global measure of emotion experienced during the affectively salient moments of the couple discussion (the Emotional Balance Score) and combined scores from the six types of high affect moments to analyze the couple interactions as a whole. In future research we plan to do more fine-grained analyses of the links between specific emotions and attributions – for example, to determine whether Anxiety and Anger are differentially linked to attributions about a partner's intentions to Dominate. In addition, we plan to examine whether links among emotions, intentions, and attributions differ across types of moments, such as moments when one is the "accuser" vs. moments when one is the "defender" with respect to one partner having done something to hurt or upset the other. This study illustrates the utility of video recall approaches for studying attributional processes. We believe, however, that video recall methods assessing intentions, attributions and emotions in the heat of couple interactions have the potential to be of benefit to a wider range of questions relevant to couple functioning, emotion and motivation. For example, we have begun to use these techniques to study empathy in the context of couple interactions and to address more basic questions about emotion regulatory processes (e.g., links between appraisals and emotions, and identification of commonly used strategies to regulate emotion).

This work differs from and complements longitudinal studies that track links between changes in attributions and changes in relationship satisfaction. It illustrates a method of linking an enduring trait-like characteristic – relationship satisfaction – with the momentary and shifting attributions that occur in couples' discussions of day-to-day problems. By focusing on momentary attributions in the context of an actual interaction rather than reports of stable attributional patterns or styles, it allows us to look at how relatively fleeting phenomena, such as emotions, can influence the processes by which attributions are shaped.

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#### Footnotes

<sup>1</sup> The methodologically innovative work of Powers and Welsh (Powers et al., 1994; Powers & Welsh, 1999; Welsh, Galliher, Kawaguchi, & Rostosky, 1999; Welsh, Galliher, & Powers, 1998) has examined momentary perceptions of one's own and one's partner's <u>behavior</u> but has not directly assessed the intentions underlying one's own behavior or the perceived intentions underlying one's partner's behavior.

<sup>2</sup> The factor structure found replicates the results obtained in a previous study with a subset of this sample (Schulz & Waldinger, 2004).

<sup>3</sup> Site and the predictor of interest were also included as main effects.

<sup>4</sup> We again conducted preliminary regression analyses to determine if the associations with Emotional Balance depended on which subsample was being examined. The product terms representing the moderating effect of site were not significant for any of the 10 regression analyses conducted. Table 1

Pearson Correlations Between Self-Reported Relationship Satisfaction and Self-Reported and Partner-Perceived Intentions

	Self-reported relationship satisfaction		
	Male	Female	
	<u>n</u> = 154	<u>n</u> = 153	
Intentions			
Facilitate	.07	.24**	
Control Emotion	22**	32***	
Dominate	11	30***	
Explain	19*	05	
Attributions		-	
Facilitate	.22**	.32***	
Control Emotion	20**	32***	
Dominate	29***	40***	
Explain	.02	.06	

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

## Table 2

Summary of Hierarchical Regression Analysis for Variables Predicting Attributions About Partner's Intentions ( $\underline{n} = 150$  couples)

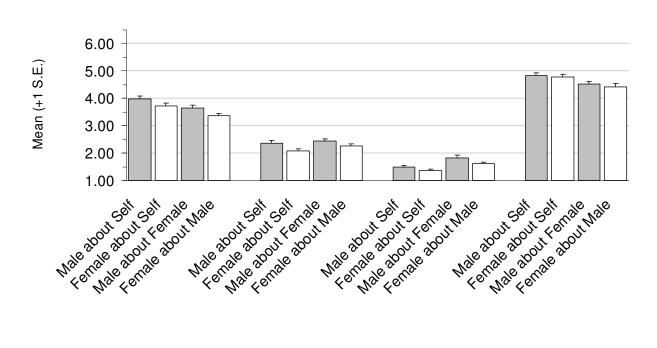
	Men			Women				
Variable	<u>B</u>	<u>Std.</u> Error	<u>Stdized</u> <u>β</u>	$\Delta R^2$	<u>B</u>	<u>Std.</u> Error	<u>Stdized</u> <u>β</u>	$\Delta R^2$
				Faci	litating			
Step 1				1 dell	intating			
Partner's self-report	.23	.08	.23**		.12	.07	.12	
Relationship satisfaction	.01	.003	.18*	.10***	.01	.003	.34***	.12***
Step 2								
Partner's self-report	.18	.07	.18*		.08	.07	.08	
Relationship satisfaction	001	.003	03		.005	.003	.12	
Positive Emotional Balance	.36	.06	.47***	.18***	.29	.06	.40***	.11**
	Controlling Emotion							
Step 1								
Partner's self-report	.30	.09	.29***		.32	.08	.32***	
Relationship satisfaction	001	.001	11	.12***	002	.001	22**	.20**
Step 2								
Partner's self-report	.20	.08	.20**		.20	.08	.21**	
Relationship satisfaction	.0004	.001	.05		0005	.001	06	
Positive Emotional Balance	06	.01	44***	.14***	05	.01	37***	.09**
	Dominating							
Step 1								
Partner's self-report	.30	.10	.23**		.22	.08	.20**	
Relationship satisfaction	.002	.001	20*	.13***	.003	.001	35***	.18**
Step 2								
Partner's self-report	.11	.09	.08		.06	.07	.05	
Relationship satisfaction	<.001	.001	005		<.001	.001	07	
		.01	57***	.24***	08	.01	56***	.20**

# Figure Caption

Figure 1. Means and standard errors of self-reported intentions and partner-reported attributions.

Dominate

Explain



**Control Emotion** 

Facilitate

Note. Gray-colored bars are reports by men. White-colored bars are reports by women. Data displayed in this figure are untransformed for all variables.