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Eye of the Beholder: The individual and dyadic contributions of empathic accuracy and perceived empathic effort to relationship satisfaction

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Abstract

This study examined links between two distinct facets of empathy – *empathic accuracy* and *perceived empathic effort* – and one's own and one's partner's relationship satisfaction. Using a video recall procedure, participants (N = 156 couples in committed relationships) reported on their own emotions and their perceptions of partners' emotions and partners' empathic intentions during moments of high affect in laboratory-based discussions of upsetting events. Partners' data were correlated as a measure of how accurately they were able to read what the other was feeling and to what degree they felt the other was trying to be empathic at those moments. The perception of empathic effort by one's partner was more strongly linked with both men's and women's relationship satisfaction than empathic accuracy. Men's relationship satisfaction was related to the ability to read their partners' positive emotions accurately, whereas women's relationship satisfaction was related to their partners' ability to read women's negative emotions accurately. Women's ability to read their husbands' negative emotions was positively linked to both men's and women's relationship satisfaction. Findings suggest that the perception of a partner's empathic effort – as distinct from empathic accuracy – is uniquely informative in understanding how partners may derive relationship satisfaction from empathic processes. When working with couples in treatment, heightening partners' perceptions of each other's empathic effort, and helping partners learn to demonstrate effort, may represent particularly powerful opportunities for improving satisfaction in relationships.

Keywords: Couples, empathy, relationship satisfaction, empathic accuracy, perceived empathic effort

Eye of the Beholder: The individual and dyadic contributions of empathic accuracy and perceived empathic effort to relationship satisfaction

Relationship satisfaction in couples plays a major role in psychological well-being, physical health, and longevity (Kiecolt-Glaser & Newton, 2001). Research suggests that empathy is a key component of satisfaction in romantic partnerships (Cramer & Jowett, 2010). However, the specific ingredients that foster empathy and the pathways by which those factors promote relationship satisfaction are less well understood. Much of the work on empathy has looked at empathic accuracy, the extent to which one can accurately infer a partner's thoughts and feelings during an interaction (Ickes & Simpson, 1997), as well as the motivation that drives one to be empathically accurate. What is less explored in the literature are the consequences for close relationships of the perception of whether a partner is trying to be empathic, or perceived empathic effort. In the present study, we examine the relative contributions of these two facets of empathy – *empathic accuracy* and *perceived empathic effort* – to self and partner relationship satisfaction, focusing on empathy around positive and negative emotions separately. We investigate these associations using data from participants' moment-to-moment ratings of their own and their partners' experiences in a couple discussion of an emotionally arousing event, utilizing the Actor–Partner Interdependence Model (Kashy & Kenny, 2000) to simultaneously account for individual and dyadic influences of empathy in intimate relationships.

Components of Empathy: Empathic Accuracy and Perceived Effort

An extensive body of work reveals a complex link between empathic accuracy and relationship satisfaction. Empathic attunement between romantic partners is positively related to relationship satisfaction in some studies but not all (Kilpatrick, Bissonnette, & Rusbult, 2002; Simpson, Ickes, & Blackstone, 1995; Simpson, Orina, and Ickes, 2003), and researchers have

attempted to understand the conditions under which empathic accuracy might be good or bad for one's relationship. Much of this effort is based on the work of Ickes and Simpson (1997, 2001), who have suggested that empathic accuracy is influenced by the following factors: (a) whether the interaction could be perceived as distressing, (b) whether the partner expresses (verbally or nonverbally) relationship-threatening thoughts or feelings, and (c) whether the perceiver feels threatened or feels the relationship is in danger. Most instances of empathic attempts are likely to occur during everyday interactions when the issues being discussed are relatively mundane, nonconflictual, or nonthreatening to the relationship. Increased empathic accuracy in such interactions enhances relationship quality, as it enables the partners to better understand one another and to provide more effective instrumental and emotional support to one another (Simpson et al., 2003; Verhofstadt, Buysse, Ickes, Davis, & Devoldre, 2008).

However, during conflict or discussion of relationship-threatening issues, heightened empathic accuracy can generate strong negative feelings toward one's partner that might threaten the stability or well-being of the relationship. Research shows that less accuracy in such situations was related to increased feelings of closeness and relationship satisfaction (e.g., Kilpatrick et al., 2002; Simpson et al., 2003). These findings are typically interpreted to mean that perceivers protect themselves from the implications of their partners' negative emotions by not attending to the emotions or assuming the partner's thoughts and emotions are less negative than they really are. Indeed, studies have shown that motivated *in*accuracy may act to preserve a relationship. For example, in dating couples where partners were feeling insecure about the relationship, lower levels of judgment accuracy were related to increased likelihood of the relationship staying intact several months later (Simpson et al., 1995). Moreover, when married couples were asked to infer the thoughts and feelings of their spouses during a discussion of a

current unresolved problem in their relationship, feelings of closeness towards one's partner decreased as a function of empathic accuracy when the partner was having relationship-threatening thoughts and feelings (Simpson et al., 2003).

As highlighted in the aforementioned model, interpersonal accuracy requires willingness and motivation to attend to verbal and nonverbal cues and to process information. The degree to which someone is motivated to make accurate estimations of another's thoughts and feelings is positively related to how accurate they are, regardless of differences in typical levels of ability. (Ickes, Gesn, & Graham, 2000; Klein & Hodges, 2001). While researchers have looked at partners' motivation to understand each other, less attention has been given to the *perception* that one's partner is motivated to understand—what we refer to as *perceived empathic effort*. The felt sense of being understood is in the eye of the beholder; the beholder may perceive effort and motivation where there is none, or fail to perceive a partner's effort and motivation when it exists. Individuals' perceptions of their partners' effort to understand may be more important in maintaining the relationship than their partners' actual success at understanding (Long & Andrews, 1990; Kenny & Acitelli, 2001). Those who perceive their partners to be understanding tend to experience more relationship satisfaction and intimacy (Cramer & Jowett, 2010; Lemay, Clark, & Feeney, 2007). However, studies of empathy have not assessed participants' perception of the extent to which their partner is *trying* to understand.

The importance of appraisals or attributions of one's partner's intentions is well documented (e.g., Holmes, 2002; Kenny & Acitelli, 2001; Lemay et al., 2007; Waldinger & Schulz, 2006). According to Gottman (1994), perception (together with physiology and behavior) acts as interactive thermostats in marriage. Perceptual biases and selective attention have been linked to marital stability and divorce (e.g., Carrere, Buehlman, Gottman, Coan, &

Ruckstuhl, 2000). Holmes (2002) suggests that people's expectations about partners' prosocial motivations are core elements of social cognition. He argues that our most critical expectations are those concerned with whether significant others are disposed to be self-interested or to be responsive. One such expectation is whether a partner is making an effort to be empathic.

Believing that a partner cares about one's welfare and will attend to one's emotions and needs is an essential feature of relationship health and well-being. Rempel, Ross, and Holmes (2001) found that compared to trusting spouses, those who were less trusting of their partners' caring motivations behaved more cautiously and challenging of their partners in discussions of a contentious issue. Moreover, relationship satisfaction has been found to be as closely linked with generally positive evaluations of a partner or the relationship as it is with the partner's objective responsiveness (Lemay et al., 2007). These findings converge on the idea that the positive appraisal of partners' intent to be understanding may be an important component of satisfaction.

Current Study

The current study is an effort to extend the existing literature on empathy by focusing on perceived empathic effort, while simultaneously examining its links to empathic accuracy and relationship satisfaction using dyadic analytic approaches (the APIM; Kashy & Kenny, 2000). Using a video recall procedure that builds on the widely-used empathic accuracy paradigm pioneered by Ickes and colleagues (1997, 2001), our aim was to determine how empathic accuracy and perceived empathic effort relate to relationship satisfaction within a sample of married and cohabitating couples. For the most affectively charged moments of the couple's interaction, partners reported their own feelings, perceptions of their partners' feelings, and whether they thought the other was trying to understand them during. We chose to focus on the moments of greatest emotional intensity, as research suggests that these are the very moments

that may be most influential in how partners feel about one another and the security of their relationship (Johnson & Denton, 2002). Empathic attunement in such moments of high affect has been shown to impact marital tension and conflict escalation (Carrere, Gottman, et al., 2000). Moreover, attributions about a partner's intentions during emotionally charged moments have been linked to relationship satisfaction (Waldinger & Schulz, 2006).

Our central hypotheses were based on the empathic accuracy model and related empirical findings. Accordingly, we predicted that when the partner's thoughts and feelings are positive and thereby presumably less relationship-threatening, greater empathic accuracy on the part of the perceiver should be associated with higher levels of relationship satisfaction (hypothesis 1). However, when the partner's thoughts and feelings are negative, and therefore potentially more relationship-threatening, greater empathic accuracy on the part of the perceiver should be associated with lower levels of relationship satisfaction (hypothesis 2). We also predicted that perceived empathic effort would be positively associated with higher levels of marital satisfaction for both partners (hypothesis 3). Depending on the observed patterns, additional analyses aimed to explore the relative contributions of empathic accuracy and perceived empathic effort to self and partner's satisfaction. Because there has been no prior work on perceived empathic effort, we did not hypothesize which of the two variables might be more strongly linked to satisfaction.

Additional analyses also aimed to examine these patterns separately for male and female partners, and to explore whether these gender patterns were significantly different from one another. While gender differences have not consistently been found in prior studies of empathic accuracy, there is related evidence to suggest that the experience and consequences of empathy may be different for men and women. For example, one study found that wives' marital well being was significantly related to their male partners' accurate empathy of destructive, but not

constructive, conflict behavior. That is, more satisfied wives had male partners who were more accurate in perceiving the women's demonstrations of hostility during conflict, yet this association was not found for the men in the study (Acitelli, Douvan, & Veroff, 1993). This finding suggests that gender may indeed influence the association between empathic accuracy for one's negative emotions and the relationship satisfaction of their partner. In the present study, we might similarly expect that men's greater accuracy in reading their female partners' negative emotions during conflict interactions would be linked to greater satisfaction for women, while women's greater accuracy in reading men's negative emotions during conflict might not be linked to greater satisfaction for the men. With regards to positive emotions, we did not expect relationship satisfaction to be differentially linked to empathic accuracy for men and women.

In the research literature on perception among partners, and specifically perceived empathy, there is some suggestion of gender differences as well. One study showed that perceptions of empathy are a stronger predictor of women's satisfaction than men's a year later, even when controlling for their baseline levels of satisfaction, and it was the man's empathy variables that had the greatest influence on both hers and his satisfaction (Busby & Gardner, 2008). So, while the male's views and actions in regard to empathy are stronger predictors of relationship quality over time, it is the female's satisfaction and relationship well-being that are more strongly affected. Thus, in the present study, we might similarly expect that perceptions of a partner's empathic effort would be of particular importance to women's satisfaction.

Method

Participants

Heterosexual couples (N =156) were recruited from the community to participate in a study of relationships (previously described in Waldinger & Schulz, 2006). Recruitment efforts focused on obtaining a diverse sample with respect to levels of functioning, relationship status,

and socioeconomic background. A guiding priority was to sample couples who were likely to vary in the ways they resolved conflicts and regulated emotions. To facilitate these goals, participants were recruited in two locations using complementary strategies. In Boston (N = 102), recruitment focused on younger, urban, and ethnically and socioeconomically diverse couples in committed (but not necessarily married) relationships, with oversampling of couples with a history of domestic violence and/or childhood sexual abuse. In Bryn Mawr, Pennsylvania (N = 54), recruitment focused on older, suburban, middle-class married couples with strong ties to the community (see Waldinger & Schulz, 2006, for demographic differences between the two subsamples). The mean length of relationship for the couples was 3.5 years (range 0.4 – 30.0), 56% were married, and 43% had children. The mean age for women was 36.2 years (SD = 8.8) and 38.3 years (SD = 10.2) for men. Ethnicity of the sample was 71% Caucasian; 19% African American; 6% Hispanic, and 4% other. Thirty-one percent had a high-school education or less, and the median family income per year was between $50,000 and $65,000.

Procedure

The research protocol was approved by the Human Subjects Review Committees at Brigham and Women's Hospital, Boston, MA and Bryn Mawr College. After providing written informed consent, participants at both study sites completed questionnaires prior to participating in a laboratory couple interaction task and video recall procedure.

Prior to the interaction task, partners were asked in individual interviews to identify an incident in the past month or two in which their partner did something that frustrated, disappointed, upset, or angered them (e.g., lied about his/her whereabouts; threatened to end the relationship; disappeared after having a disagreement.) Each participant recorded on audiotape a one- or two-sentence statement summarizing the incident and reaction. Partners were then brought together and, in counterbalanced order, discussed one incident identified by the man and

one identified by the woman (in cases where both partners identified the same incident, we then used a second incident identified by the partners). The audiotaped summary of each incident was played to initiate discussions, and participants were told to try to come to a better understanding of what occurred. In Boston the discussions lasted 8 min, and in Bryn Mawr they lasted 10 min. Following the discussion, participants viewed the videotape of their interaction and continuously rated their degree of emotional negativity and/or positivity during the interaction with an electronic rating device designed for this study. The device had a knob that moved across an 11-point scale that ranged from *very negative* to *neutral* to *very positive*. Past research has established the validity of this and similar video recall procedures for obtaining reports of affective experience (e.g., Gottman & Levenson, 1985; Schulz & Waldinger, 2004).

Using participants' ratings from the first phase of the video recall procedure, six high affect moments (HAMs) of 30-second duration were selected for each couple. These included the two 30-s 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. Thus, the six 30-second HAMs collectively represent 18.75% (3 of the 16 minutes) and 30.0% (3 of the 10 minutes) of the rest of the couple interaction for the Boston and Bryn Mawr samples, respectively. In the second phase of the cued recall task, 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 partner's feelings and intentions during that segment.

Measures

Relationship satisfaction. The Locke–Wallace Marital Adjustment Test—Short Form (MAT; Locke & Wallace, 1987) was used to measure relationship satisfaction. The MAT is a

widely used 15-item self-report measure on which scores may range 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. 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 (i.e., a score below 100 is thought to be indicative of clinically significant relationship distress; Gottman, 1994). As expected, couples in the Boston subsample were significantly less satisfied (*M* = 100.14, *SD* = 29.48) with their relationships than were couples in the Bryn Mawr subsample (*M* = 117.23, *SD* = 25.98), $t = -3.59$, $p < .001$.

Self- and partner-reported negative and positive affect. The HAM questionnaire lists 16emotions that people may experience. Using a scale from one to seven (1 = not at all and 7 = very much), participants were asked to rate how much they felt each of the emotions during each of the six HAMs. Two factor-analytically derived scales (see Waldinger & Schulz, 2006) were used in this study. *Negative* consisted of the following emotion states: angry, irritated, disgusted, upset, hurt, critical, and defensive. The emotion variables comprising the *Positive* factor included: happy, close and supported. Good internal reliability was found across both scales for all HAMs (alphas ranged from .74 to .80). Identical items were rated for partners' affect during the HAMs, yielding partner perceptions of negative and positive affect.

(1) Empathic accuracy. To measure the degree to which partners can accurately read each others' emotions, a correlational methodology was used to compute empathic accuracy (EA) scores. Each EA score is the correlation between a sender's self rating of emotions experienced during the 30-second HAM and the partner's rating of his or her perception of those

emotions experienced by the sender. This resulted in six correlations (one for each HAM) for each negative and positive emotion, which were then aggregated into a single EA score representing the average empathic accuracy for that emotion across all six moments. The final step was to combine the average EA scores for all seven negative emotions into a single Negative emotion index, reflecting the overall empathic accuracy for one's partner's negative emotions. We similarly combined the average EA scores for the three positive emotions into a single Positive emotion index, reflecting the overall empathic accuracy for one's partner's positive emotions. This procedure was repeated to compute EA for both men's and women's emotions. We chose to aggregate measurements of empathic accuracy from the six charged moments of interaction to enhance the reliability of our index of individual differences in empathic accuracy. We found good internal reliability for aggregated ratings of the six empathic accuracy correlations for negative and positive emotions, respectively (men's α = .85 and .87 and women's α = .89 and .91). Higher positive scores reflect greater agreement between partners, or greater empathic accuracy by one partner in reading the other partner's emotions, whereas scores closer to zero indicate less empathic accuracy between partners and more negative scores (ranging to -1) indicate greater disagreement, or empathic inaccuracy.

(2) Perception of partner empathic effort. During each HAM segment, participants rated the degree to which they perceived their partner as having 15 particular intentions/motivations. Ratings from one intention ("My partner was trying to understand me") were used to capture individuals' perceptions of their partner's empathic effort. To maximize reliability in the present analyses, we averaged ratings for this item across the six HAMs. Cronbach's alpha demonstrated good internal reliability for both men's (α = .83) and women's (α = .86) aggregated ratings.

Data Analysis

To test the relative contribution of empathic accuracy and perceived empathic effort to self and partner's satisfaction, we used the Actor-Partner Interdependence Model (APIM; Kashy & Kenny, 2000), which analyzes data from both partners simultaneously and thereby helps to distinguish between the individual and dyadic influences of each empathy variable on each partner's satisfaction. For example, a woman's empathic accuracy may lead her to feel more satisfied in the relationship (an individual effect) and/or it may lead her husband to feel understood and more satisfied in the relationship (a dyadic or partner effect).

In this APIM framework (see Figure 1), *actor effects* represent the influence of each individual's predictor variables on his or her own outcome – in this case, the influence of empathic accuracy and the individual's perception of empathy from his or her partner on his or her own satisfaction. Paths *a* and *b* represent, respectively, the influence of men's accuracy in reading their wives' emotions and men's perception that their wives are trying to understand them on their own satisfaction. Similarly, paths *A* and *B* represent, respectively, the influence of women's accuracy in reading their husband's emotions and women's perceptions that their husbands are trying to understand them on their own satisfaction. Actor effects, to be measured accurately, should be estimated while controlling for the dyadic, or *partner effects* – that is, the influence of each individual's empathic accuracy (in reading the other's emotions) and that individual's perception of empathy from his or her partner on the partner's satisfaction. Paths *c* and *d* represent, respectively, the influence of women's accuracy in reading their partner's emotions on the men's satisfaction and women's perception of men's empathic effort on the men's satisfaction. Similarly, paths *C* and *D* represent, respectively, the influence of men's accuracy in reading their female partners' emotions and men's perception of empathic effort by

their partners on the women's satisfaction. The double-headed arrows between both partners' empathic accuracy (path *e*), between partners' perceptions of empathic effort by the other (path *f*), and between each partner's empathic accuracy and the other partner's perception of empathy (paths *g* and *G*) acknowledge explicitly the potential contribution of unexamined influences of partners (e.g., assortative mating) and unmeasured variables in shaping empathic skills, perceptions and marital satisfaction.

Initial SEM analyses of the APIM model depicted in Figure 1 were run to identify which of the actor and partner effects were significant. Follow-up nested comparisons (i.e., nested chi-square difference tests with a series of constraints) were then conducted to test whether any significant effects differed in magnitude for men and women and for the influence of empathic accuracy vs. perceived empathic effort. We chose to test for potential differences between the significant paths only to minimize the potential for type II errors. In the nested comparisons, a chi-square difference is computed to indicate whether imposing the restriction of two equal path loadings (e.g., across men and women) results in a statistically significant worsening of overall model fit as indexed by a significant chi-square difference. If it does not, then the magnitude of the two paths are statistically equivalent.

Results

Mean scores on the empathic accuracy measure for negative emotions were 0.30 (*SD* = 0.26) for women and 0.26 (*SD* = 0.27) for men. Mean scores on the empathic accuracy measure for positive emotions were 0.32 (*SD* = 0.45) for women and 0.26 (*SD* = 0.45) for men. Mean scores on the measure of perceived empathic effort were 4.07 (*SD* = 1.59) for women and 4.08 (*SD* = 1.42) for men. Men and women did not significantly differ on any of the empathy measures or on relationship satisfaction—mean satisfaction scores were 106.62 for men (*SD* =

28.12) and 106.05 for women (*SD* = 29.39.) Correlations among study variables are reported in Table 1. Women's relationship satisfaction was significantly correlated with their empathic accuracy for men's negative and positive emotions, and with men's empathic accuracy for women's negative emotions. Women's relationship satisfaction was most strongly correlated with their perception of empathic effort by their male partners. Men's relationship satisfaction was significantly correlated with all of the empathic accuracy variables (men's and women's empathic accuracy for all emotions), and moderately strongly with their female partners' perceptions that men are trying to understand them. Of note, we did not find significant differences between men's and women's mean levels of empathic accuracy (for both positive and negative emotion), perceived empathic effort, or relationship satisfaction. We also compared whether subjects in the two subsamples (Boston vs. Bryn Mawr) differed on any of the empathy variables, which would be expected given that participants were recruited differently at the two sites with an eye to achieving sufficient variability across groups (i.e., Bryn Mawr couples were older, in long-term marriages, and overall more satisfied than the Boston couples). We found higher mean scores for the Bryn Mawr couples on three of the empathy variables: women's empathic accuracy for positive emotions (t = -2.02, p = .05), men's empathic accuracy for positive emotions (t = -2.21, p = .03), and women's perception that their male partners are trying to understand them (t = -2.56, p = .01). However, given the advantages of a relatively large, fairly diverse sample in couple research, we decided to run analyses for the combined sample. Moreover, in their previous work, the authors provide an empirical rationale for combining the samples given found connections between relationship variables were robust across subsamples (Waldinger & Schulz, 2006).

Path Analyses and Model Fit

APIM models were estimated using structural equation modeling (SEM) in AMOS (Version 17.0; Arbuckle, 2006). Separate SEMs were estimated for empathic accuracy for positive and for negative emotions. Figure 2 displays analyses of the dyadic model with empathic accuracy for *positive* emotions and perceived empathic effort by one's partner as the exogenous predictors. Overall, this model fits the data well, χ^2 (2) = 2.39, p = 0.30, CFI = .99, RMSEA = .04; and SRMR = .03. The empathy variables collectively accounted for 15% and 19% of the variance in men's and women's satisfaction, respectively.

Figure 3 displays results of the APIM model examining empathic accuracy for *negative* emotions and perceived empathic effort by one's partner as the endogenous predictors. The chi-square statistic was small and non-significant, χ^2 (2) = 2.94, p = 0.23, suggesting that the model fit the data. Additional fit indices confirmed a good fit to the data: CFI = .99; RMSEA = .06; and SRMR = .04. The empathy variables collectively accounted for 13% and 25% of the variance in men's and women's satisfaction, respectively.

Consistent with hypothesis 1, we found that men's accuracy in reading their partners' positive emotions was positively related to their own relationship satisfaction (Figure 2). However, contrary to our hypothesis, the remaining links between empathic accuracy for positive emotion and relationship satisfaction – that is, men's empathic accuracy and women's relationship satisfaction, and women's empathic accuracy and her own and her partner's relationship satisfaction – were not significant.

The second hypothesis predicted that empathic accuracy for a partner's negative emotions, because it could be relationship threatening, would be associated with lower levels of self and partner's satisfaction (Figure 3). This was only supported in the case of men's empathic accuracy around women's negativity, which was not significantly associated with men being

more satisfied. Contrary to predictions, other links were more strongly positive: men's greater accuracy in reading their female partners' negative emotions was significantly linked to the women being more satisfied, and women's greater accuracy in reading their partners' negative emotions was significantly related to both partners being more satisfied.

Consistent with hypothesis 3, perceiving one's partner as trying to understand was related to being more satisfied with one's relationship for both men and women in the positive emotion model (Figure 2), and for women (but not men) in the negative emotion model (Figure 3). In both models there was evidence of a partner effect; there was a significant link between women's perception that their partner was trying to understand them and men's relationship satisfaction. There was, however, no reciprocal partner effect of men's perception of empathic effort on women's relationship satisfaction.

Based on the links found to be significant in the models, we conducted nested model comparisons to explore gender differences in the links between satisfaction and the two empathy variables, and to more systematically investigate the relative contribution of empathic accuracy and perceived empathic effort to women's relationship satisfaction:

(1) *Is the link between the perception that one's partner is trying to be empathic and relationship satisfaction significantly different for men and women?* When the actor paths for men's and women's perceived empathic effort were constrained to be equal in the positive emotion model, the model fit was significantly worse ($\Delta\chi^2$ (1) = 3.43, p = 0.05) than in the unconstrained model, indicating that the woman's actor effect (β = .34) was significantly larger than the man's actor effect (β = .15). That is, perceiving one's partner as making an effort to be empathic is linked more strongly to women's than men's satisfaction.

(2) *Is the link between relationship satisfaction and a partner's accuracy in reading one's negative emotions different for men and women?* Constraining the partner paths for men's and women's empathic accuracy to be equal in the negative emotion model yielded a non-significant nested model comparison ($\Delta\chi^2$ (1) = .07, p = 0.80), indicating that there was no reliable difference in the relative strength of the association of women's empathic accuracy for men's negative emotions and his satisfaction (women's partner effect, β = .18) compared to the association of men's empathic accuracy for women's negative emotions and her satisfaction (men's partner effect, β = .21).

(3) *Which is more strongly linked with women's relationship satisfaction – their partners' empathic accuracy or women's perception that men are trying to understand them?* A nested model comparison ($\Delta\chi^2$ (1) = 3.79, p = 0.05) revealed that women's relationship satisfaction was more strongly linked with women's perception that their male partners were trying to understand them (actor effect for women's perceived empathy) than with men's ability to accurately read their wives' negative emotions (partner effect for men's empathic accuracy).

To summarize these findings, the model shown in Figure 2 suggests that empathic accuracy in reading a partner's positive emotion plays a role in men's but not women's relationship satisfaction. Moreover, perceived empathic effort plays a role in both partner's relationship satisfaction, and the link between perceived partner effort and one's own relationship satisfaction is stronger for women than for men. Moreover, the model shown in Figure 3 suggests that women are more satisfied with their relationships when they accurately read their partners' negative emotions, when their partners are empathically attuned to their negative emotions, and when they perceive their partners as trying to understand them. Men, too,

are more satisfied in their relationships when their partners can more accurately read their hostility, and also when their partners perceive their empathic effort.

Discussion

This study builds on previous empathy research in couples by examining the degree to which perceiving one's partner as ***trying*** to be empathic is associated with relationship satisfaction independent of a partner's actual empathic accuracy. We used a video recall method to derive self and partner ratings of emotions and perceptions in affectively charged moments of couple interactions. Empathic accuracy was assessed by examining how closely self-reported feelings matched a partner's perceptions of those feelings, also known as empathic accuracy.

Empathic Accuracy and Relationship Satisfaction

In line with the Ickes and Simpson's model (2001), we predicted that empathic accuracy for positive emotions would be associated with self and partner satisfaction (Hypothesis 1) because the perceiver has no reason to feel threatened by the consequences of accurately inferring the partner's positive feelings. The only significant link was found between men's empathic accuracy in reading their female partners' emotions and their own relationship satisfaction. That is, men's accuracy for positive emotions was significantly and moderately linked to men's own relationship satisfaction but not to women's satisfaction. Moreover, women's empathic accuracy for positive feelings was not significantly linked to either her or his satisfaction. Taken together, this pattern of findings seems to suggest that men's relationship satisfaction is uniquely associated with accuracy in reading their female partners' positive affect.

We also predicted that empathic accuracy for a partner's negative emotions, which may be relationship threatening, would be associated with lower levels of relationship satisfaction (Hypothesis 2). Again, this prediction was only supported in the case of men's empathic accuracy, which was not linked to their own satisfaction, but was linked to their female partners'

satisfaction. Men's empathic accuracy for negative emotions was significantly and moderately associated with women's satisfaction, though non-significantly linked to men's satisfaction. Contrary to expectations, women's empathic accuracy in reading their partners' negative emotions was significantly and positively linked to both her own and his satisfaction. Altogether, these results are consistent with the notion that women's negative emotions may be relationship-threatening to their male partners, and that those male partners with less accuracy in reading these emotions are more likely to report relationship satisfaction. Women, in contrast, may not be as threatened by their partners' negative emotions. Women who more accurately read their partners' negative emotions were the most satisfied in their relationships. It could be that for women, perceiving their male partners as having negative emotions reflects some degree of the male's investment and emotional engagement in the relationship, even during times of conflict. The withdrawal behavior in relationships that is more typically observed in male partners has been shown to negatively impact the female partners, who are looking for more engagement and emotion expression (Eldridge & Christensen, 2002; Gottman, 1994; Johnson & Denton, 2002).

Perceived Empathic Effort and Relationship Satisfaction

We found support for our prediction that perceived empathic effort would be positively associated with higher levels of marital satisfaction for both partners (Hypothesis 3), even after controlling for the actor and partner influences of empathic accuracy. In the model examining positive emotions, the perception of empathic effort by one's partner was strongly positively linked with both men's and women's relationship satisfaction and this link was stronger for women. Moreover, women's perceived empathic effort was linked to women's relationship satisfaction in the model examining empathic accuracy for negative emotions. Collectively, these finding suggest that women may place greater value on partners' empathic effort, perhaps because this behavior emphasizes the ***desire*** and investment of their male partners to be attentive

and emotionally attuned in the relationship. The links that emerged for women's perception of their partner's empathic effort and women's own satisfaction are consistent with Long and Andrews' (1990) finding that 50% of women's marital adjustment was accounted for by the degree to which they perceived their partners as taking their perspective. Men's perceptions, in this study, accounted for only 22% of the variance in their relationship satisfaction.

The Relative Importance of Empathic Accuracy and Perceived Empathic Effort

Overall, the findings from this study suggest that men may be more satisfied in their relationships when they can accurately read their partners' positive emotions, while women's relationship satisfaction may uniquely benefit when they can accurately read their partners' negative emotions, and both partners equally derive relationship satisfaction when their partners are empathically accurate to their negativity. The gender differences in these patterns are consistent with other research findings that men tend to disengage when negatively aroused whereas women prefer to engage with others and talk about their distress more directly, a pattern thought to reflect women's stronger desire for affiliation when experiencing negative affect or stress (Taylor et al., 2000). Moreover, research suggests that women may need to feel that their partners remain close and attentive to them even when they are feeling angry or upset (Eldridge & Christensen, 2002). In our analyses of negative emotion, we were able to test if women's satisfaction was differentially linked to their male partners' accuracy in reading their negative emotions or to their perception of their partners as trying to be empathic. Women's satisfaction was more strongly related to the perception that their partners were trying to understand their negative emotions than to men's actual accuracy in reading those emotions. This finding is consistent with previous research that points to the importance of believing that a partner cares about one's welfare and needs (Lemay et al., 2007; Kenny et al. 2001; Rempel et al., 2001).

Strengths and Limitations

The present study both complements and elaborates upon existing theory and research on empathic accuracy and attribution-making in romantic dyads. Our aim was to take into account the attribution that partners' make of their partners' intentions to be empathic, while also examining well-established links between empathic accuracy and satisfaction. We used a dyadic modeling technique that is increasingly used in couple research to allow us to simultaneously analyze individual and dyadic links between both empathy variables and satisfaction, and especially to examine the relative influence of empathic accuracy and perception of effort.

The study builds on nearly 20 years of research on empathic accuracy. There has been little prior research simultaneously examining empathic accuracy and attributions about partners' empathic effort. This investigation opens a potentially fertile line of inquiry that considers the independent roles of partner attributions and empathic accuracy in understanding relationship functioning. Most prior research has examined attributions using questionnaires that ask about likely attributions for relationship difficulties or behaviors (Karney & Bradbury, 2000). In this study, we examined momentary attributions made in the context of actual couple discussions about affectively-charged issues rather than more global attributional styles. Such momentary attributions can be the trigger for couple conflict or, conversely, can contribute to healthy repair.

The 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. Thus, the links found in this study between empathic processes and relationship satisfaction are likely to apply to a wide range of couples. Future research, however, might take fuller advantage of the diversity of the two samples by specifically examining whether certain group differences in demographic and/or relationship variables impact empathic processes. For example, it would be useful to explore whether the experience of abuse in childhood or domestic violence in one's current relationship

has a biasing effect on empathic accuracy and/or the perceptions of an intimate partner's empathic effort. 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.

In addition to these strengths, the study has several limitations worth noting. First, because the study was cross-sectional, we cannot establish the direction of influence underlying the associations between empathy and relationship satisfaction. However, there is supporting evidence from other longitudinal research that empathy does indeed influence relationship satisfaction a year later, even when controlling for satisfaction levels in the prior year (Busby & Gardner, 2008). Thus, there is empirical grounding for examining the association between empathic processes and relationship satisfaction in the direction that we pursued in this study. Still, it is certainly possible that satisfaction in one's relationship might influence empathic processes during couples' interactions, and it would be valuable to investigate this alternative directionality in future studies using a longitudinal design. This study also relied on laboratory-based interactions and focused on the most affectively charged moments within these interactions. These interactions may not be representative of the spontaneous experiences that these couples have in everyday life. Finally, this study only examines positive and negative emotions. It would be interesting to look in a more fine-grained way in the future at negative emotions in particular to see if, for example, empathy for sadness or other vulnerable feelings may have different relational consequences that empathy for anger and related feelings.

Implications

Marital distress and the failure to develop and/or maintain a satisfying intimate relationship with one's partner is one of the more common reasons why people seek mental

health services (Schonbrun & Whisman, 2010). Efforts to enhance intimacy in romantic relationships have often focused on empathy-building as a primary target in repairing troubled relationships and preventing future marital distress (Johnson & Denton, 2002). It is challenging, however, to identify the specific aspects of empathy that are most relevant to relationship success. This study highlights two aspects of empathy that are linked with relationship satisfaction and that may provide specific directions for clinical intervention. For example, helping partners attune to negative emotions may be particularly important, especially for women, as understanding a partner's distress may foster healthy repair of connection. Helping men to understand their partners' negative emotions may allow them to stay engaged during interchanges in which women desire their partner's engagement and men are inclined to withdraw in response (see Eldridge & Christensen, 2002, for a review of this demand/withdrawn pattern). Our findings suggest that men may derive added relationship satisfaction when they can read their female partners' positive emotions and when their female partners can read their positive emotions. Thus, when working with couples, it seems particularly important for therapists to help both partners, especially males, heighten the empathic connection around reading one another's positive emotions. Finally, findings suggest that it is important in working with couples to heighten the perception of a partner's empathic effort in two ways – (1) to help partners appreciate one another's empathic efforts, and (2) to help individuals more clearly communicate those empathic efforts.

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Tables

Table 1

Correlations of Study Variables for Female and Male Partners

	Female Partners				Male Partners			
	Empathic Accuracy Hostility (1)	Empathic Accuracy Positivity (2)	Perceived Empathic Effort (3)	Relationship satisfaction (4)	Empathic Accuracy Hostility (5)	Empathic Accuracy Positivity (6)	Perceived Empathic Effort (7)	Relationship satisfaction (8)
(1)	__							
(2)	.17*	__						
(3)	.19*	.11	__					
(4)	.31**	.22*	.43**	__				
(5)	.35**	.08	.15	.30**	__			
(6)	.04	.33**	.01	.14	-.07	__		
(7)	.21*	.13	.34**	.23**	.15	-.10	__	
(8)	.26**	.24**	.34**	.62**	.16*	.21*	.24**	__

N = 156. *p< .05; ** p< .01

Figure Captions

*Figure 1.*Proposed APIM to test individual and dyadic effects of empathic accuracy and perceived empathy on couple's relationship satisfaction.

*Figure 2.*Actor and partner effects for dyadic model of empathic accuracy for positive emotions, perceived empathy, and relationship satisfaction. Path coefficients represent standardized regression coefficients (βs). *p < .05; **p < .01.

*Figure 3.*Actor and partner effects for dyadic model of empathic accuracy for negative emotions, perceived empathy, and relationship satisfaction. Path coefficients represent standardized regression coefficients (βs). **p*< .05; ***p*< .01.

Figure 1.

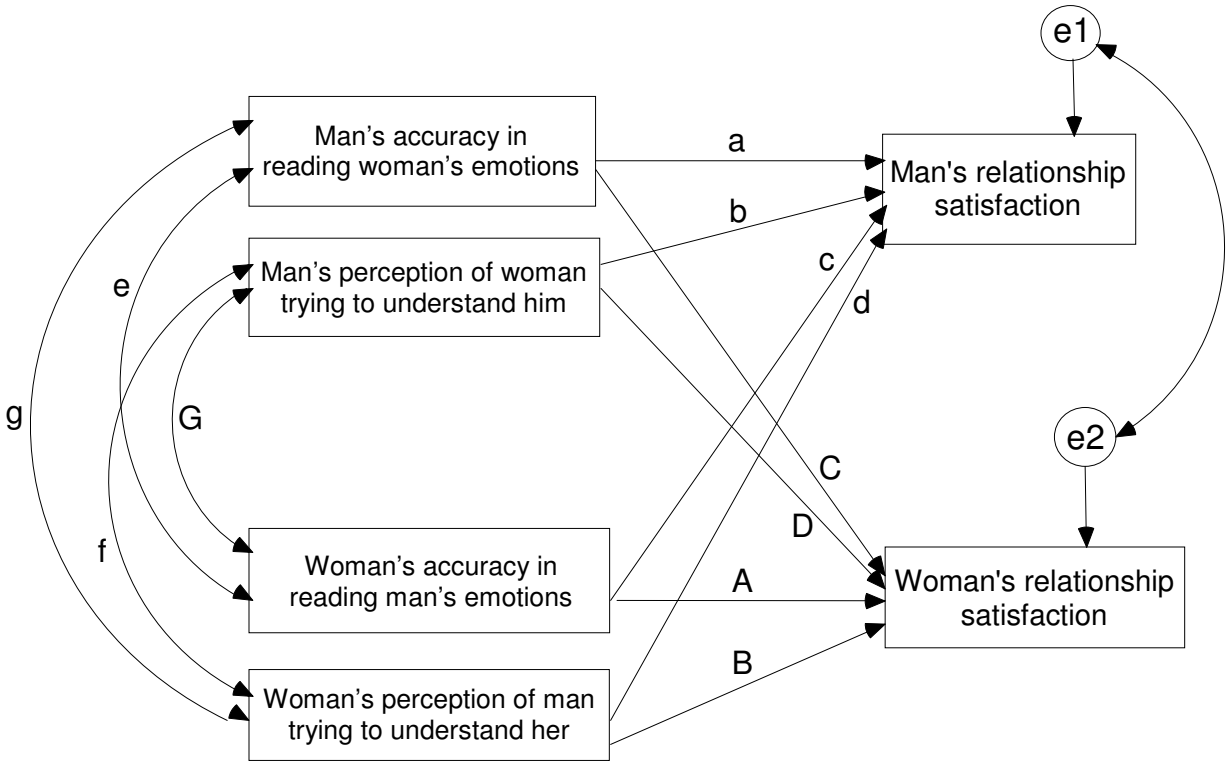

e1
Man's accuracy in reading woman's emotions
Man's relationship satisfaction
Man's perception of woman trying to understand him
Woman's accuracy in reading man's emotions
Woman's relationship satisfaction
Woman's perception of man trying to understand her
e2
a
b
c
d
e
f
g
G
C
D
A
B

Figure 2.

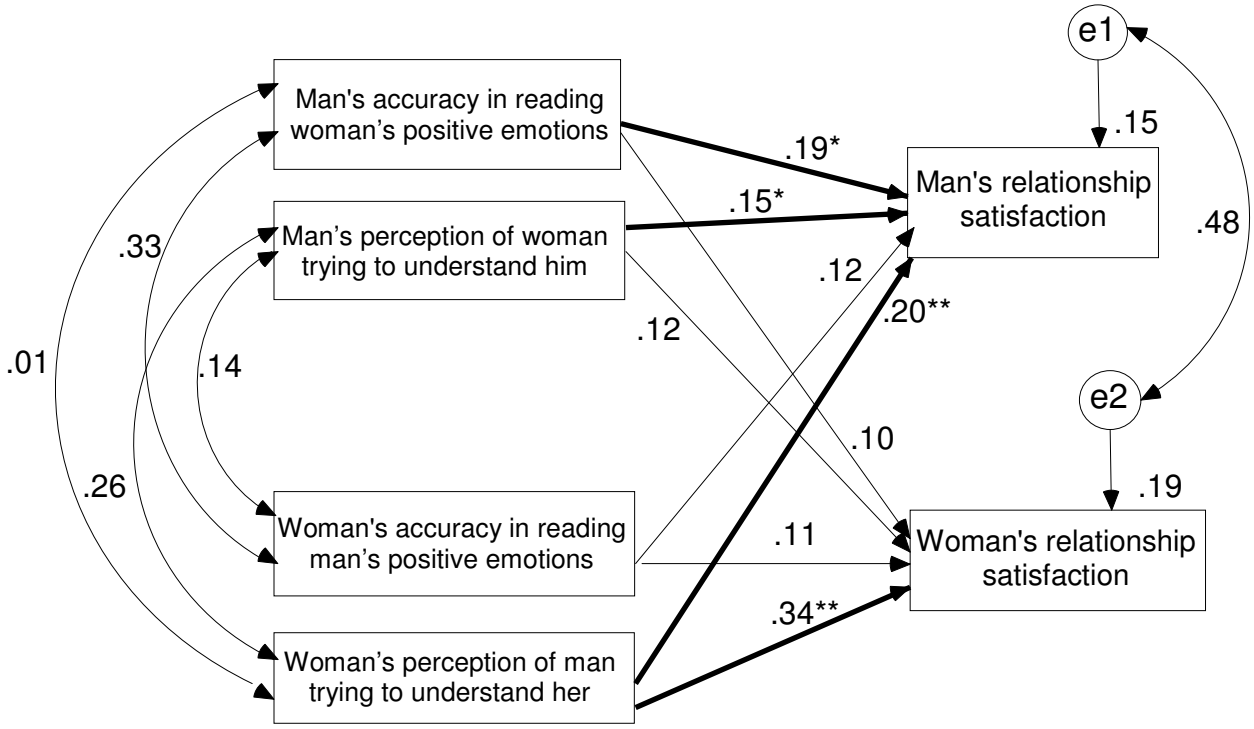
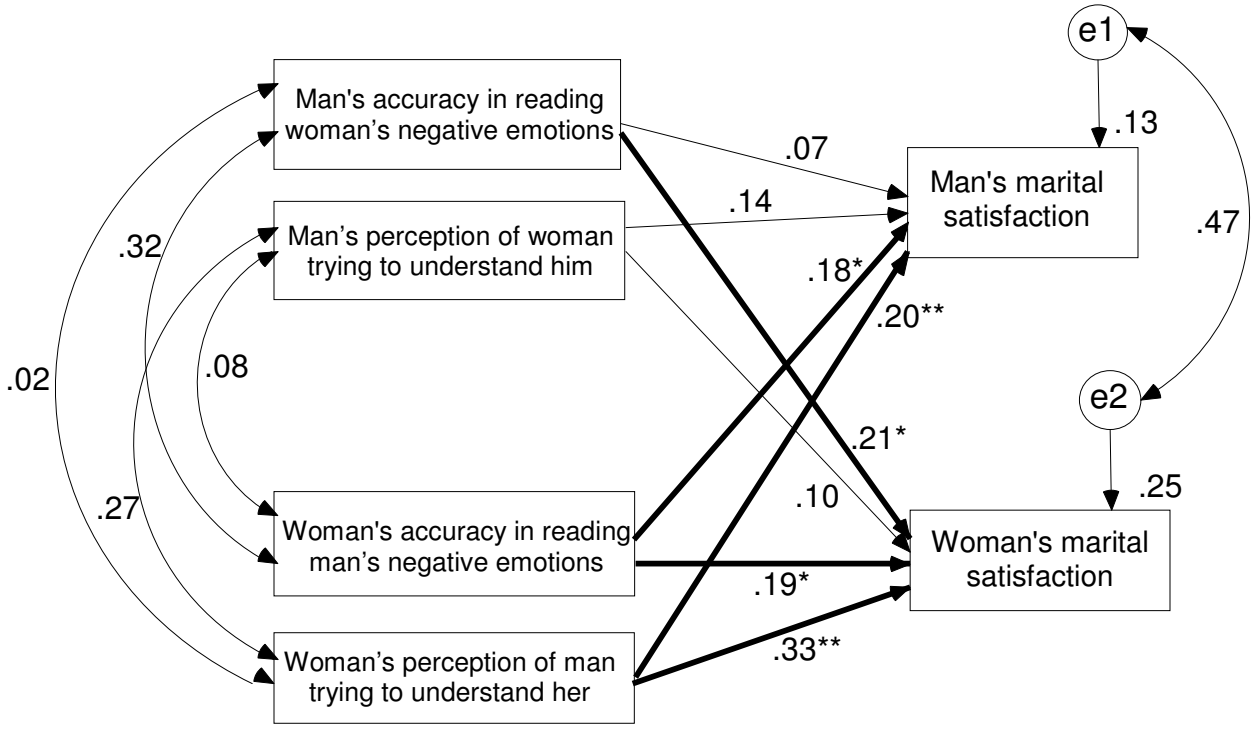

e1
Man's accuracy in reading woman's positive emotions
Man's relationship satisfaction
.15
.48
.19*
.15*
Man's perception of woman trying to understand him
.33
.12
.12
.20**
.01
.14
e2
.10
.26
.19
Woman's accuracy in reading man's positive emotions
.11
Woman's relationship satisfaction
.34**
Woman's perception of man trying to understand her

Figure 3.


e1
Man's accuracy in reading woman's negative emotions
.13
.07
Man's marital satisfaction
.14
.47
Man's perception of woman trying to understand him
.32
.18*
.20**
.08
.02
e2
.21*
.25
.10
.27
Woman's accuracy in reading man's negative emotions
Woman's marital satisfaction
.19*
.33**
Woman's perception of man trying to understand her