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**When Accuracy Hurts, and When It Helps:  
A Test of the Empathic Accuracy Model In Marital Interactions**

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### **Abstract**

This study tested predictions from Ickes and Simpson's (1997, 2001) empathic accuracy model. Married couples were videotaped as they tried to resolve a problem in their marriage. Both spouses then viewed a videotape of the interaction, recorded the thoughts and feelings they had at specific time-points, and tried to infer their partner's thoughts and feelings. Consistent with the model, when the partner's thoughts and feelings were relationship-threatening (as rated by both the partners and by trained observers), greater empathic accuracy on the part of the perceiver was associated with pre-to-posttest declines in the perceiver's feelings of subjective closeness. The reverse was true when the partner's thoughts and feelings were non-threatening. Exploratory analyses revealed that these effects were partially mediated through observer-ratings of the degree to which partners tried to avoid the discussion issue.

## **When Accuracy Hurts, and When It Helps:**

### **A Test of the Empathic Accuracy Model in Marital Interactions**

Previous research has uncovered an apparent paradox about the relation between empathic accuracy and relationship quality. The results of some studies indicate that empathic understanding is positively correlated with relationship quality and functioning (e.g., Kahn, 1970; Noller, 1980; Noller & Ruzzene, 1991; Noller & Vernardos, 1986). However, the results of other studies reveal a negative correlation (e.g., Floyd, 1988; Gottman, 1979; Kowalik & Gotlib, 1987; Sillars, Pike, Jones, & Murphy, 1984; Simpson, Ickes, & Blackstone, 1995). It is this apparent paradox that the present study was designed to address.

Evidence showing that heightened empathic accuracy can have positive effects on relationships comes from several sources. Relative to unhappily married couples, happy couples are more accurate at identifying both the kind of affect experienced by their partners during conflict resolution discussions as well as their partners' specific goals and intentions (Noller & Ruzzene, 1991). Satisfied married couples also report less discrepant interpretations of their partners' nonverbal communications during conversations than do less satisfied couples (Kahn, 1970). And non-distressed couples tend to exhibit better empathic understanding than clinically distressed couples do (Gottman, 1979).

Definitive conclusions, however, cannot be drawn from these findings because other research indicates that—at least in some situations—greater empathic accuracy is associated with poorer relationship functioning and outcomes. In an important early literature review, Sillars and Scott (1983) noted that, in studies of couples engaged in conflict interactions, married partners who are closer and happier actually display *less* empathic accuracy than those who are not. In

related research, Sillars et al. (1984) found that more negative statements and more negative vocal tones were expressed by spouses who more accurately discerned how their partner assessed the importance of the problems being discussed.

To explain these puzzling findings, Ickes and Simpson (1997, 2001) proposed a theoretical model of the relation between empathic accuracy and relationship quality. In this model, the potentially threatening versus nonthreatening nature of the partner's thoughts and feelings is assumed to moderate the relation between the actor's empathic accuracy and the actor's perception of relationship quality. More specifically, this association is expected to be positive when the issues being discussed are relatively mundane, non-conflictual, or non-threatening to relationships, but is expected to be negative when more contentious or threatening issues must be confronted. In other words, empathic accuracy should have a positive impact on perceived relationship quality when the relatively benign topics that routinely surface in relationships are being considered. However, because heightened empathic accuracy carries the potential to generate strong, negative feelings if it reveals differences that might threaten the stability or well-being of the relationship, it should have a more negative and destabilizing effect when relationship-threatening topics are discussed, particularly when these topics cannot be avoided or the partners cannot simply "turn a blind eye" to them.

If empathic accuracy can sometimes help, but at other times hurt, close relationships, experienced relationship partners should eventually learn how to "manage" empathic accuracy in their relationships. The empathic accuracy model (Ickes & Simpson, 1997, 2001) was developed with the goal of understanding and predicting when such management should occur and what

outcomes it should generate—outcomes that include both the perceiver’s level of empathic accuracy and the perceiver’s perceptions of feeling close versus distant to his or her partner.

In our previous studies (Simpson et al., 1995; Simpson, Ickes, & Grich, 1999), we have tested predictions that the model makes when the perceiver’s *empathic accuracy* is treated as the dependent variable.<sup>1</sup> In the present study, we shift our attention to the final “step” in the model and test predictions that the model makes when the perceiver’s current *feeling of closeness to the partner* is the dependent variable. This focus on perceptions of subjective closeness has two important implications. First, it requires a selective overview of the empathic accuracy model, one that emphasizes the links between empathic accuracy and feelings of closeness. Second, it acknowledges that short-term changes in how close or distant individuals feel toward their partners can act as an “online barometer,” reflecting the degree to which people feel emotionally connected to their partners/relationships in a state-like way at a specific point in time (Aron, Aron, & Smollan, 1992; Simpson, Rholes, & Phillips, 1996). Partners who typically do not experience significant declines in subjective closeness during relationship-threatening interactions or events should have happier and more stable relationships. In contrast, those who repeatedly experience such temporary declines may be more vulnerable to both short-term and long-term relationship difficulties (cf. Simpson et al., 1995).

In the present study, we examined changes in subjective closeness in order to test the prediction that greater accuracy regarding a marriage partner’s potentially threatening thoughts and feelings can temporarily hurt the relationship, whereas greater accuracy regarding the partner’s nonthreatening thoughts and feelings can temporarily help it. To provide a backdrop for these predictions, we will briefly overview the main tenets of the empathic accuracy model.

*Ickes and Simpson's (1997, 2001) Empathic Accuracy Model*

The empathic accuracy model starts with the assumption that each perceiver's ability to "read" the valid cues displayed by a partner and the partner's ability to send such cues set the upper and lower limits for empathic accuracy during a given interaction. Within these broad boundaries, however, the level of the perceiver's empathic accuracy should be influenced by three factors: (a) whether the situation is one in which the partner's thoughts and feelings are perceived as likely to cause the perceiver distress, (b) the clarity or ambiguity of the cues signaling the partner's thoughts and feelings, and (c) the degree to which the perceiver feels threatened by the consequences that would likely result from accurately inferring the partner's thoughts and feelings.

Besides making predictions about the perceiver's empathic accuracy, the model also makes predictions about the conditions under which the perceiver's empathic accuracy should be positively or negatively linked to his/her feelings of closeness to the partner. These additional predictions also derive from the model's claims about how perceivers should manage their empathic accuracy in relationship-threatening versus non-threatening situations.

*Empathic accuracy in non-threatening situations.* According to the model, relationship partners should try to accurately infer each other's thoughts and feelings in most routine, mundane situations (e.g., during ordinary interactions in which little or no threat to the relationship is likely to occur). In these benign situations, empathic accuracy should often provide constructive insights into the partner and/or the issues being discussed. These insights should help to clarify potential misunderstandings, avert future conflicts, and facilitate satisfaction and closeness in the relationship (Ickes & Simpson, 1997, 2001). Thus, as long as

partners' thoughts and feelings are not likely to have negative consequences for the stability and happiness of the relationship, accurate empathic understanding should remain a primary interaction goal (cf. Heider, 1958). Moreover, to the extent that perceivers have no reason to feel threatened by the consequences of accurately inferring their partner's thoughts and feelings, perceivers should not experience personal distress or declines in subjective closeness. If anything, greater empathic accuracy regarding the partner's non-threatening thoughts and feelings should result in mild increases in subjective closeness.

*Empathic accuracy in relationship-threatening situations.* Although most interaction contexts are mundane and non-threatening, relationship partners occasionally encounter situations that elicit thoughts or feelings that have the potential to harm and destabilize the relationship. According to the empathic accuracy model, if the perceiver interprets a situation as having this potential, the perceiver's initial "line of defense" should be to either avoid discussions involving the situation or try to escape from it. The primacy of this defensive strategy is based on the premise that most people do not want to be exposed to aversive situations, especially if they can be easily avoided.

If, however, the partners are unable or unwilling to avoid or escape from a potentially threatening situation, they should—if circumstances permit—shift from an "inferential accuracy set" to a "motivated *inaccuracy* set." Whether or not this strategy will work should depend on the degree to which the partner's thoughts or feelings are perceived as ambiguous. If they appear to be unambiguous (e.g., the partner admits to a serious betrayal), the sheer clarity of this information should force the perceiver to achieve a moderate-to-high level of empathic accuracy, and the perceiver's feeling of closeness to the partner should decline.



According to the model, a high level of empathic accuracy is not always good for relationships. When the partner's thoughts and feelings are relationship-threatening, greater empathic accuracy on the part of the perceiver should be associated with a significant decline in the perceiver's feeling of closeness to the partner. Conversely, when the partner's thoughts and feelings are not relationship-threatening, greater empathic accuracy by the perceiver should be associated with a modest increase in the perceiver's feeling of closeness. The present study was designed to test these predictions.

#### *Overview of the Present Study*

We recruited married couples to participate in a videotaped conflict resolution task. After arriving at the lab, the members of each couple were separated so that they could complete (independently and in private) a set of questionnaires that inquired about their background, their personality, and their marriage. Then, to ensure that a wide array of conflict topics were discussed, the partners were reunited and asked to identify and "try to resolve" either a major or a minor unresolved problem in their marriage that centered on issues of "intimacy" or "jealousy," broadly defined. We chose these issues with the goal of establishing the generality of our empathic accuracy predictions in a study that addressed both common sources of marital conflict.

After each couple had identified a specific topic/issue to discuss, the couple was given 7-10 minutes to resolve it as best they could. Each interaction was videotaped with the prior consent of both partners. Immediately following the discussion, each spouse was led to a separate room where s/he privately watched the videotaped interaction and listed the specific thoughts and feelings s/he had at specific time-points during the interaction. During a second

viewing of the videotape, each spouse then completed the empathic inference task (in which s/he tried to infer the content of each of his/her partner's thoughts and feelings at each of the time-points listed by the partner). Following these tasks, each spouse completed a final set of post-interaction measures.

Our central prediction can be characterized by a statistical interaction. When the partner's thoughts and feelings are more relationship-threatening, greater empathic accuracy on the part of the perceiver should be associated with a significant decline in the perceiver's feeling of closeness to the partner. On the other hand, when the partner's thoughts and feelings are less relationship-threatening, greater empathic accuracy on the part of the perceiver should be associated with a modest increase in the perceiver's feeling of closeness. Testing this basic prediction was the main focus of the study.

## **Method**

### *Participants*

Prospective couples responded to fliers posted around the community or to advertisements placed in the local newspaper. To participate, the couples had to have been married for at least 1 year but not more than 15 years. Interested couples contacted a research assistant by telephone and were told that they would be paid \$50 for their participation. Those couples who agreed to participate ( $N = 96$ ) were then scheduled for a laboratory session. In the middle of their experimental session, the members of one couple declined to release their videotaped interaction for coding. Their decision was honored, they were given full payment, and their data were deleted. Thus, our final sample consisted of 95 married couples.

The average length of marriage for these couples was 5.79 years. The average age of the husbands and wives was 32.70 and 31.50 years, respectively. Seventy percent of the participants classified themselves as Caucasian, 22% were Hispanic, and 8% were African-American.

### *Design and Procedure*

To determine whether the hypothesized effects would hold across different types and levels of conflict, each couple was randomly assigned to 1 of 4 experimental conditions in a 2 (Type of Problem: Jealousy vs. Intimacy) X 2 (Severity of Problem: More vs. Less) between-dyads design, with pre-to-post discussion changes in each partner's subjective closeness (IOS scores) as the dependent variable. Upon arriving at the lab, the members of each couple were first told about the purpose of the study and were then asked to read and sign consent forms. It was made clear that they could discontinue their participation in the study at any time for any reason without loss of promised compensation. The spouses were then separated and seated in different rooms to ensure that they could not communicate with each other when completing the pre-interaction questionnaire.

Embedded in this questionnaire was the pre-interaction measure of perceived closeness—the Inclusion of Self in Other Scale (IOS; Aron et al., 1992). The IOS is a single-item measure that taps the extent to which individuals feel close to their partners/relationships. It has good test-retest reliability in addition to good convergent, discriminant, predictive, and construct validity (see Aron et al., 1992). Although the IOS primarily assesses subjective feelings of being emotionally connected to and invested in the current partner/relationship, it also correlates reliably with behavioral markers of closeness (e.g., the subscales of the Relationship Closeness Inventory; Berscheid, Snyder, & Omoto, 1989). In addition, the IOS correlates moderately with

measures of marital satisfaction and commitment, with cognitive measures of closeness, and with indexes of emotional closeness and attraction in relationships created in the lab (see Aron et al., 1992). When participants are asked what the IOS represents, most people interpret it as the amount of “interconnectedness” or “interdependence” between the self and the partner (see Aron & Fraley, 1999, for further information). As discussed earlier, the IOS is also a good measure of short-term changes in perceived closeness, reflecting the degree to which people feel content and emotionally interconnected with their partners/relationships at a given point in time (Simpson et al., 1996). This is how the IOS was used in the present study.

Once both spouses had completed the pre-interaction questionnaire, they were led to a room where their conflict discussion took place. At this point, the experimenter said:

“In all relationships, there are times when both partners don’t necessarily agree or see eye-to-eye. Your spouse may have a habit, attitude, or behavior that you find troublesome. In this study, we are investigating how married couples discuss problems and disagreements in their relationship. To do this, we are going to videotape the two of you [with your consent] discussing a current, unresolved problem in your relationship. No one will be watching you during your interaction. Your videotape will be coded at a later point in time by trained raters. During the videotaping session, we will tape you for about 7–10 minutes while you talk about a minor (or a major) problem involving closeness (or jealousy). Before you begin this discussion, we would like you both to identify some problems on these sheets.”

Each spouse then listed (independently) up to 4 topic-relevant problems. When both spouses had finished creating their separate lists, each spouse examined his/her partner’s list, and

the spouses then jointly agreed on which specific issue to discuss. The spouses were then left alone to discuss the issue, and their interaction was videotaped (with their prior written consent) by means of a split-screen (dual) camera system.

The couples were asked to state the problem they had agreed to discuss at the start of their interaction so it would be clear to the raters (who would later code the videotapes) what the primary issue(s) of contention were. At the 7-minute mark, each couple was notified by intercom that they needed to conclude their discussion. All discussions lasted between 7-10 minutes. Immediately after the videotaping, the spouses were led to different rooms where they independently completed the thought/feeling reporting and the empathic inference task with no experimenter present.

#### *Thought/Feeling Reporting and Empathic Accuracy Assessment*

Following the standard procedures used to assess empathic accuracy (see Ickes, 1997, 2001), each spouse assumed two roles. When in the role of the *target partner*, each spouse provided a set of actual thought/feeling entries (i.e., specific thoughts or feelings the spouse recalled having at specific points during the videotaped interaction), which his/her partner then attempted to infer. When in the role of the *perceiving partner*, each spouse attempted to infer the specific thoughts and feelings reported by his/her partner.

To measure each partner's actual thoughts and feelings, each participant viewed a separate copy of the videotaped discussion, and was instructed to report *as accurately as possible* each specific thought or feeling that s/he distinctly remembered having had during the discussion. When the videotape reached a point at which the participant remembered having had a particular thought or feeling, s/he was told to pause the tape. Then, using a standardized answer

sheet, the participant was asked to record: (a) the time when the thought or feeling occurred (the running time of the interaction was overlaid on the tape), (b) whether it was a thought or feeling, and (c) what the specific content of the thought or feeling was (reported as precisely as possible in 1-2 sentences). Husbands listed a mean of 7.04 thoughts/feelings during their discussions (SD = 4.25), and wives listed a mean of 6.50 thoughts/feelings (SD = 3.72).

Using 7-point scales (anchored 1 = *not at all*; 7 = *extremely*), each participant then rated: (a) the extent to which each thought or feeling was potentially threatening/destabilizing to the relationship, (b) the extent to which the participant had expressed the thought or feeling overtly (directly and clearly) in his/her behavior, and (c) how threatened s/he felt at that point of the interaction. These ratings were aggregated across all of the thoughts and feelings listed by each participant to form 3 self-report indexes: (a) the extent to which the participant rated his/her own thoughts and feelings as relationship-threatening or destabilizing, (b) the degree to which his/her thoughts/feelings were overtly (directly and clearly) conveyed in his/her behavior, and (c) the degree to which the participant felt personally threatened at the points when his/her own thoughts and feelings were reported.

After completing these tasks, each participant was given a list of the specific times or “stop points” when his/her spouse (i.e., the target partner) reported having had a specific thought or feeling. The perceiver watched the videotaped discussion again, this time stopping the tape each time his/her spouse reported having had a specific thought or feeling. At each stop point, the participant was asked to make a written inference (in 1-2 sentences) regarding what his/her spouse had been thinking or feeling at that point in time. Then, using 7-point scales (anchored 1 = *not at all*; 7 = *extremely*), the perceiver indicated the extent to which: (a) each inferred thought

or feeling was potentially threatening/destabilizing to the relationship, (b) the extent to which the target partner's verbal or nonverbal behavior clearly expressed what s/he was most likely thinking or feeling, and (c) how threatened the *perceiver* felt at that point of the interaction. Each of these respective measures was aggregated across all of the thought/feeling entries to form 3 perceiver-rated indexes: (a) how threatening/destabilizing the partner's inferred thoughts and feelings were, (b) how clearly the partner's behavior seemed to express these inferred thoughts and feelings, and (c) how threatened the perceiver felt when inferring these thoughts and feelings.

After completing the empathic accuracy assessment, the participants then completed a short set of post-interaction items. Embedded in these measures was the IOS post-interaction closeness measure, which asked the participants to report *how they felt at that particular moment*. By assessing subjective closeness both before *and* after each interaction, we were able to test for pre-to-post-discussion changes in perceived closeness. Once they had completed this IOS post-test measure, the two spouses were reunited, debriefed, and paid for their participation.

#### *Coding of Empathic Accuracy and Behavioral Measures*

*Empathic accuracy coding.* The empathic accuracy data were coded by 5 trained raters who worked independently (i.e., who made their ratings privately, without any knowledge of either the hypotheses or the evaluations made by the other raters). These raters assessed each perceiving partner's empathic accuracy by comparing the actual thoughts/feelings reported by each participant with the corresponding inferred thoughts/feelings reported by his/her spouse. Specifically, for each thought/feeling inference made by the perceiver, the raters assigned a value of "0" if the content of the inferred thought/feeling was essentially different from the actual

thought/feeling, a “1” if the inferred content was similar to (but not the same as) the actual content, and a “2” if the inferred content was essentially the same as the actual content. The raters coded the husband and wife in each marriage in a random order (i.e., half of the raters coded husbands first, then wives; half coded wives first, then husbands). The mean reliability of this measure (i.e., the within-subject average calculated across all of the raters) was .72.

The empathic accuracy ratings were aggregated across the entire set of thought/feeling inferences made by each perceiver, and then averaged across the 5 raters to create a single empathic accuracy score for each perceiver. This score was then adjusted for the total number of thought/feeling inferences made by each perceiver to create a percentage-analogue index of empathic accuracy that could range from 0 (total inaccuracy) to 100 (total accuracy). The average scores for the husbands and the wives in the current sample were virtually identical (26.01 and 26.03, respectively). This mean level of empathic accuracy is similar to what has been found in previous studies of young married couples (e.g., Kilpatrick, Bissonnette, & Rusbult, 1999).

*Videotape coding.* We then gave the 5 raters lists containing each participant’s actual thought/feeling entries along with the “stop points” at which each thought/feeling occurred. The raters then watched each couple’s interaction, stopped the videotape at each listed stop point, and rated the extent to which: (a) the target partner’s verbal or nonverbal behavior clearly expressed what s/he was actually thinking/feeling at each point (given the target’s actual, written thought or feeling at each moment), and (b) how threatened the target spouse’s *partner* should have felt at each stop point, given the target’s actual, written thought or feeling. The raters coded the husband and wife in each marriage in a random order. These ratings, which were made on 7-



point scales anchored 1 = *not at all* and 7 = *extremely*, were then aggregated to create an observer-rated index of the verbal/nonverbal expression of the target partner's thoughts and feelings (the mean within-subject reliability across all raters was .87), and an observer-rated index of the degree to which the target person's spouse should have felt threatened by the target spouse's thought/feeling content (the mean within-subject reliability across all raters was .88).

*Behavioral coding.* Although the empathic accuracy model makes no predictions about what kinds of behaviors might signal the level of threat in a partner's thoughts and feelings, the marital conflict literature suggests some possibilities (see Holmes & Murray, 1996). To explore these possibilities, we had 5 different trained raters watch each of the videotaped discussions and rate the behavior of each spouse separately. As before, all of the raters made their ratings privately, without any knowledge of either the hypotheses or the evaluations made by the other raters, and they coded the behavior of each husband and wife in a random order. The coded behaviors were ones that commonly occur during marital conflicts (Gottman, 1994) and could plausibly convey the threat level evident in a partner's thoughts and feelings.

Before making the ratings, the raters noted the specific issue(s) that each couple had agreed to try to resolve (which were mentioned by each couple at the start of their discussion). Using 7-point scales (anchored 1 = *not at all*; 7 = *extremely*), the raters estimated the degree to which each spouse: (a) reacted negatively to his/her spouse's comments (the within-subject reliability across all raters was .85), (b) expressed anger toward his/her spouse (.83), (c) listened attentively to his/her spouse (.75), (d) acknowledged his/her spouse's stated thoughts and feelings (.73), and (e) avoided ("ducked") the issue(s) that the couple had agreed to discuss (.72). Because all of the reliabilities were acceptably high, we calculated a single score for each

participant on each of the 5 behavioral dimensions by averaging the scores of the 5 raters. The influences of these rated behaviors were then examined in a series of exploratory analyses.

## **Results**

### *Descriptive Statistics*

We first calculated a set of descriptive statistics and zero-order correlations for the wives and husbands separately. These descriptive statistics are presented in Table 1. Each reported mean is normed to the rating scale used to measure each construct. Thus, aside from the Empathic Accuracy Index (which could range from 0-100), all other means are reported in the metric of the 7-point rating scales that were used to measure each construct. Generally speaking, the participants reported relatively high levels of subjective closeness, and low-to-moderate levels of having destabilizing thoughts/feelings and feeling threatened during their discussions. They also displayed moderate levels of empathic accuracy compared to past social interaction studies involving married partners (e.g., Kilpatrick et al., 1999). Finally, they were rated by our trained raters as displaying low-to-moderate levels of negativity, anger, attentive listening, acknowledgement of the spouse, and trying to avoid the discussion topic.

Seven gender differences emerged, many of which have been documented in the results of previous conflict resolution studies (see Holmes & Murray, 1996): (a) wives inferred that their husbands were harboring more threatening thoughts and feelings than husbands inferred about their wives' thoughts and feelings; (b) raters evaluated husbands' verbal and nonverbal behaviors as more clearly expressing what they (the husbands) were thinking and feeling compared to raters' evaluations of wives; and (c) wives reported being more threatened than husbands when inferring their spouse's thoughts and feelings. Observer-ratings of the videotaped discussions

also revealed that, relative to husbands, wives: (d) expressed greater anger, (e) listened more attentively, (f) acknowledged their spouse more, and (g) were less likely to avoid the issue being discussed.

The zero-order intercorrelations of the variables are reported in Table 2. In general, they reveal that neither wives' nor husbands' levels of empathic accuracy were significantly correlated (as main effects) with the other variables, including both the primary predictor variables (e.g., the self, partner, and observer-rated measures of relationship destabilization and perceived threat) and the primary dependent measures (e.g., pre-discussion and post-discussion IOS scores). Husbands and wives who scored higher on subjective closeness (the IOS scale), however, reported that they had significantly fewer relationship-threatening thoughts/feelings, felt less threatened, and appeared less threatened (rated by observers). The corresponding findings for their spouses mirrored these effects.

#### *Testing for Dyadic Interdependence*

We next looked for evidence of dyadic interdependence in the partners' (spouses') responses. As reported in Table 2, interpartner correlations revealed that the husbands' and wives' scores were positively and significantly correlated for both the pre-discussion and post-discussion IOS scores, self-reported relationship-threatening/destabilizing thoughts and feelings, self-reported perceptions of feeling threatened, and observer-ratings of threat evident in each partners' thought/feeling listings. Thus, there was some statistical interdependence within couples on certain measures.

#### *APIM Analyses*

Given the dyadic interdependence in the data, we used the Actor-Partner Interdependence

Model (APIM; Kenny, 1996; Kashy & Kenny, 2000) to analyze the data. The APIM allows one to estimate the degree to which the dyad members' responses or behaviors are associated with factors attributable to the actor (i.e., the individual providing the response/behavior) and to the actor's partner.<sup>2</sup> In other words, the APIM estimates both *actor effects* (the effect that an individual's predictor variable score has on his/her *own* outcome score) as well as *partner effects* (the effect that an individual's *partner's* predictor variable score has on the actor's outcome score). In essence, APIM analyses model the statistical interdependence that naturally exists between partners in relationships. By doing so, they provide separate, statistically independent tests of actor and partner paths, in which the effects of the actor's independent variable score on the actor's dependent measure control for the partner's independent variable score, and the effects of the partner's independent variable score on the actor's dependent measure control for the actor's independent variable score. With this approach, the dyad is treated as the unit of analysis, and actor and partner effects are tested with the proper degrees of freedom (see Kenny, 1996; Kashy and Kenny, 2000; Campbell and Kashy, 2002, for further details).

Consider an illustrative example. In the present study, an actor effect would be evident if an individual's own level of reported threat during the conflict discussion predicted his/her own negative feelings (statistically controlling for his/her spouse's level of reported threat). The more threatened a person is, for instance, the more s/he might feel negatively (see the A paths in Figure 1). A partner effect, in contrast, would be evident if an individual's *partner's* level of threat predicted the first individual's negative feelings (see the B paths in Figure 1). In this case, an individual's negative feelings are associated with the degree to which his or her spouse felt threatened.

As noted in the introduction, our primary prediction (derived from the empathic accuracy model) focuses on the variables that should interact to predict pre-to-post discussion *changes* in the actor's subjective closeness. Consistent with this focus on changing feelings of closeness, residualized IOS scores (i.e., each participant's post-discussion IOS score, controlling for his/her pre-discussion IOS score) were used as the primary dependent variable in most of the analyses reported below. With regard to our predictor variables, the participants' empathic accuracy scores, their self-ratings of personal threat, their self-ratings of threatening/destabilizing thoughts and feelings, and the observer-ratings of the participants' threatening/destabilizing thoughts and feelings were treated as mixed independent variables, and each spouse's gender (male or female) was treated as a within-dyad independent variable.

To determine whether our predicted interaction effect generalized across different levels and sources of conflict, each couple was randomly assigned to discuss either a major or a minor conflict that centered on either jealousy or intimacy. These two experimental conditions (problem severity: more vs. less and problem topic: jealousy vs. intimacy) were treated as between-dyad independent variables.<sup>3</sup> Preliminary analyses revealed that no significant main effects or interactions were found for these two variables (that is, none of the effects reported below were qualified by either the severity or the topic of the problem that was discussed). Thus, the effects reported below have some generality in that they are *not* confined to specific issues or levels of marital conflict. These effects are also not qualified by the length of the participants' marriages.<sup>4</sup>

For all analyses presented below (conducted in SAS Version 6.12), the actor and partner effects are reported as regression coefficients, the independent variables are standardized, and the

dependent variables are unstandardized. All variables were centered on the grand mean (Aiken & West, 1991). Hence, every one standard unit of change in the independent variables corresponds to one *unstandardized* unit of change in the dependent variables. The degrees of freedom were calculated for each step (i.e., they were estimated for both the between-dyad and the within-dyad variables; see Campbell & Kashy, 2002). As a result, the degrees of freedom vary slightly in different analyses, depending upon whether the predictor variables in a particular regression equation included between-dyad and/or within-dyad variables. All significant effects that emerged are reported.

*Does the Actor's Empathic Accuracy Interact with the Threat-Level of the Partner's Thoughts/Feelings to Predict Changes in the Actor's Feeling of Closeness?*

To test the interaction prediction that we derived from the empathic accuracy model (Ickes & Simpson, 1997, 2001), we first examined whether the extent to which the *partner's* thoughts and feelings were relationship-threatening interacted with the *actor's* level of empathic accuracy to predict changes in the *actor's* feeling of subjective closeness. We assessed the amount of threat evident in each spouse's thoughts and feelings in two complementary ways: (a) in self-ratings made by each spouse of how threatening/destabilizing his/her thoughts or feelings were to the relationship, and (b) in observer-ratings of the amount of threat evident in the written content of each spouse's listed thoughts and feelings. We reasoned that if parallel effects emerged across both types of data, greater confidence could be placed in the reliability and robustness of our core prediction.

According to our model (Ickes & Simpson, 1997, 2001), if the actor's partner is having more threatening or destabilizing thoughts/feelings, greater empathic accuracy by the actor

should be associated with the actor reporting decreased feelings of subjective closeness. Conversely, if the target partner's thoughts and feelings pose little or no threat to the relationship, greater empathic accuracy by the actor should be associated with increased feelings of closeness. We tested this prediction in two separate analyses, using both self-report and observer-rated data.

*Self-report data.* Consistent with the empathic accuracy model, pre- to post-discussion changes in the actor's feelings of closeness were predicted by a significant two-way interaction between the *actor's* (i.e., the perceiving partner's) empathic accuracy and the *partner's* (i.e., the target partner's) ratings of the extent to which his/her thoughts and feelings might threaten the relationship,  $b = -.017$  (Beta =  $-.31$ ),  $t(108) = -3.49$ ,  $p < .01$  (see Figure 2). A closer examination of this interaction revealed that subjective closeness decreased for actors (perceivers) who were more empathically accurate *and* whose partners reported harboring more relationship-threatening thoughts/feelings. On the other hand, closeness *increased* for empathically accurate actors (perceivers) whose partners reported that their thoughts/feelings were relatively non-threatening.

*Observer-rated data.* When the same two-way interaction was tested using the observers' ratings of how threatening the partner's thoughts and feelings were (instead of the partner's own ratings), a significant effect emerged again,  $b = -.022$  (Beta =  $-.36$ ),  $t(97) = -3.28$ ,  $p < .01$ . As shown in Figure 3, if outside observers rated the partner's thoughts/feelings as more relationship-threatening/destabilizing, greater empathic accuracy by the actor predicted a decline in the actor's subjective closeness. However, if observers rated the partner's thoughts and feelings as posing relatively little or no threat to the relationship, greater empathic accuracy by the actor predicted an increase in the actor's subjective closeness.

When interpreting these results, it is important to remember that statistically independent paths are estimated for actor and partner effects in the APIM. That is, the effects reported above statistically control for the level of threat contained in each actor's thoughts and feelings, which means that the partner's level of threat explains variance *above and beyond* the actor's level of threat. The results for the threat level of actor's thoughts and feelings (controlling for the partner's level of threat) are reported in a separate section below.

*Clarity of thoughts/feelings analyses.* Although the empathic accuracy model (Ickes & Simpson, 1997, 2001) does not predict whether the clarity with which partners express their thoughts and feelings in behavior should moderate the two-way interaction effects reported above, we examined this possibility in a set of exploratory analyses. Specifically, we conducted additional analyses to determine whether changes in actor's feelings of subjective closeness were predicted by significant three-way interactions involving: (a) the actor's empathic accuracy, (b) the level of threat evident in the partner's thoughts/feelings (either self-reported or observer-rated), and (c) the level of clarity with which partner's thoughts/feelings were conveyed in their behavior (either self-reported or observer-rated).

None of these three-way interactions were significant. Further analyses suggested why the clarity-of-expression measures did not moderate the consistent pattern of two-way interactions reported above: the perceivers' (actors') ratings of how clearly their partners conveyed their thoughts and feelings did not correlate with the perceivers' (actors') degree of empathic accuracy in either gender. Thus, the clarity measures could not act as moderators, at least in the situation studied here.



### *Exploratory Analyses of the Partners' Behaviors*

The predicted interaction effects reported above were derived directly and deductively from the empathic accuracy model. In this section, however, we report a set of *inductively-based*, exploratory analyses designed to clarify which behavioral cues displayed by *partners* were systematically associated with pre-to-post discussion declines in the actor's subjective closeness.

The empathic accuracy model makes no predictions about the specific interaction behaviors that might be associated with the amount of threat in a partner's thoughts and feelings. The marital conflict literature, however, suggests some logical candidates (see Holmes & Murray, 1996). Using this literature as a guide, we performed a series of exploratory analyses to determine which of the 5 observer-rated behaviors might have covaried with declines in perceived closeness, particularly in couples where the actor was high in empathic accuracy and his/her partner (spouse) harbored greater relationship-threatening thoughts and feelings.

To do so, we first conducted 2 sets of exploratory analyses, each of which treated the 5 observer-rated behavioral indexes (partner reacted negatively, partner expressed anger, partner listened attentively, partner acknowledged the spouses' thoughts/feelings, and partner avoided the issue to be discussed) as dependent measures. In the first set of exploratory analyses, the actor's empathic accuracy, his or her partner's reported level of threatening thoughts and feelings, and the interaction term of these measures served as the independent variables. In the second set, the actor's empathic accuracy, the observer-ratings of his or her partner's level of threatening thoughts and feelings, and the interaction term were the independent variables.

Significant two-way interactions emerged for only one behavioral index—partner “avoidance” of the issue. As shown in Figure 4, when actors were more empathically accurate

and their partners were rated (by observers) as having more relationship-threatening thoughts and feelings, partners were rated (by observers) as being more likely to avoid the issue that both spouses had agreed to discuss,  $b = .007$  (Beta = .13),  $t(143) = 3.12$ ,  $p < .005$ . A significant pattern was also found when the interaction term involving partner's self-reports of having threatening thoughts and feelings was tested,  $b = .007$  (Beta = .12),  $t(158) = 3.54$ ,  $p < .001$ . Moreover, actors in general experienced larger pre-to-post-discussion declines in subjective closeness if their partners tried to avoid the discussion issue,  $r(189) = -.30$ ,  $p < .001$ . Viewed together, these results reveal that partners' level of observer-rated avoidance was associated with both the principle interaction term involving actor's empathic accuracy and their partner's threatening thoughts/feelings and also with declines in actor's subjective closeness.

These intriguing findings led us to test two exploratory moderated mediation models, following the recommendations of Baron and Kenny (1986). Specifically, we tested whether the association between (a) the interaction of the actor's empathic accuracy and his/her partner's threatening thoughts and feelings and (b) the actor's declines in closeness might have been mediated by (c) the degree to which the partner tried to avoid or "duck" the discussion issue. One set of mediation analyses tested the partner's self-ratings of the threat contained in his/her thoughts and feelings, and another set tested observer-ratings of the partner's level of threat. In both sets of analyses, the main effects of the actor's empathic accuracy and the partner's level of threat (either self-rated or observer-rated) were partialled out prior to testing the effects involving the actor empathic accuracy by partner threat interaction terms.

Sobel's  $z$  test (Sobel, 1982) revealed partial mediation in both sets of analyses. As shown in Figure 5, actors who were more empathically accurate when their partners reported more

relationship-threatening thoughts and feelings had partners who were more likely to avoid the discussion issue, and partner avoidance of the issue in turn predicted declines in the actor's subjective closeness after statistically controlling for the interaction term, Sobel's  $z = 2.40$ ,  $p < .05$ . The mediator (partner avoidance) explained over half of the variance shared between the interaction term and actor's changes in closeness, indicating partial mediation. Similarly, as displayed in Figure 6, actors who were more empathically accurate when their partners were rated as having more relationship-threatening thoughts and feelings had partners who were more likely to avoid the issue. The degree of partner avoidance, in turn, predicted declines in actor's closeness after controlling for the interaction term, Sobel's  $z = 2.08$ ,  $p < .05$ . Once again, partner avoidance explained about half of the variance shared between the interaction term and changes in closeness.

In sum, these exploratory moderated mediation results suggest that when participants were more empathically accurate and their spouses harbored more threatening thoughts/feelings, the spouses' behavioral attempts to avoid the discussion topic might have been a behavioral cue that actors used to either infer or confirm the "threat potential" of their partner's underlying thoughts and feelings. This finding, which is discussed in greater detail in the discussion, is consistent with those of previous marital conflict studies (e.g., Gottman & Krokoff, 1989).

#### *Actor's Level of Threat*

We conducted a final set of exploratory analyses to determine whether and how the level of threat in the actor's *own* thoughts and feelings was associated with changes in the actor's feelings of closeness. Past research has suggested that the more threatening actors' own thoughts and feelings are during conflict resolution discussions with their romantic partners, the less close

they may feel toward their partners after such discussions (e.g., Simpson et al., 1996). However, past research has not tested for these actor effects while statistically controlling for the level of threat evident in the *partner's* thoughts and feelings. Because the married partners in this study had correlated (i.e., interdependent) levels of threatening thoughts and feelings, it was important to test for actor effects independent of partner effects.

*Self-report data.* For the data in which the partners rated how destabilizing and relationship-threatening their own thoughts and feelings were during the conflict discussion, a significant actor main effect emerged,  $b = -.180$  (Beta =  $-.26$ ),  $t(120) = -2.69$ ,  $p < .01$ . It indicated that the more the participants (actors) rated their own thoughts and feelings as being threatening/destabilizing, the more they experienced pre-to-post discussion declines in their feelings of subjective closeness.<sup>5</sup>

*Observer-rated data.* For the data in which observers (raters) evaluated how destabilizing and relationship-threatening each spouse's listed thoughts and feelings appeared to be during the conflict discussion, a conceptually parallel actor main effect was found,  $b = -.340$  (Beta =  $-.36$ ),  $t(100) = -3.12$ ,  $p < .01$ . Once again, the more that the participants' (actors') thoughts and feelings were rated as being threatening/destabilizing, the more they reported declines in subjective closeness.

In summary, the pre-to-post discussion changes in subjective closeness that actors experienced were systematically related to the level of threat evident in both their own (*actor's*) and their spouse's (*partner's*) thoughts and feelings. It is not very surprising that actors who harbor relationship-threatening thoughts and feelings when trying to resolve a marital conflict experience significant declines in subjective closeness. What is more surprising—and of greater

theoretical interest—is that actors whose *partners* harbor relationship-threatening thoughts and feelings report parallel declines in closeness, controlling for the actor’s own level of perceived threat. The implications of this “partner effect” are discussed below.

### **Discussion**

This study tested a core prediction derived from Ickes and Simpson’s (1997, 2001) empathic accuracy model. Married couples were videotaped as they tried to resolve a current problem in their marriage. Both spouses then independently listed all of the specific thoughts and feelings they had at specific points during their discussion. In the next phase of the study, they tried to infer what their spouse was thinking or feeling when s/he reported having had specific thoughts or feelings at specific time points. Both spouses then rated the content of their own thoughts/feelings as well as those they inferred their partner had. After all of the data had been collected, trained observers rated the content of each spouse’s thoughts and feelings, along with specific behaviors that each spouse displayed during their discussion.

As predicted, we found significant two-way interactions involving the empathic accuracy of *actors* and the level of threat evident in their *partner’s* (spouse’s) thoughts and feelings during the conflict discussions. When actors were more accurate at inferring their partner’s thoughts and feelings and their partners actually harbored greater relationship-threatening thoughts and feelings (as reported by partners *and* as rated by observers), actors experienced pre-to-post discussion declines in subjective closeness with respect to their partners. Conversely, when actors were more empathically accurate and their partners had less threatening thoughts and feelings (as reported by both partners *and* observers), actors experienced pre-to-post discussion increases in closeness.

Exploratory moderated mediation analyses revealed that partners' attempts to avoid the discussion issue mediated the link between this interaction term and actors' declines in closeness. These additional findings suggest that, for declines in closeness to occur, the accuracy of the perceivers' empathic inferences might have had to be validated by behavioral evidence that their partners' thoughts and feelings were, in fact, threatening to the relationship. Lacking such validating evidence, perceivers might have instead been willing to give their partners "the benefit of the doubt," as indicated by negligible or no declines in their feelings of closeness.

When interpreting these results, it is important to consider the context in which the conflict discussions occurred. Our participants were married couples, all of whom had discussed and had tried to resolve the problem they identified without success on previous occasions. Therefore, most individuals probably knew their spouse's general attitudes, beliefs, thoughts, and feelings regarding the topic/issue under discussion. Most individuals also probably realized that, even though their discussions could be threatening, their marriages would continue whether or not the issue was resolved. Thus, in contrast to the greater relationship threat that might be expected in studies involving dating couples (who are less structurally interdependent than most married couples), the attempt of the spouses in our study to resolve a relatively "major" problem should not, and apparently did not, pose a severe threat to their relationships (see footnote 3). This explains why we did not find 3-way interactions involving actors' empathic accuracy, partners' threat, and the problem severity manipulation.

Relationships should not suffer from rare or infrequent instances in which individuals accurately infer their partner's relationship-threatening thoughts and feelings. In these circumstances, declines in subjective closeness are likely to be fleeting and to leave little if any

long-term negative residual effects. If, however, individuals repeatedly find themselves in situations where they are empathically accurate precisely when their partners are harboring relationship-damaging thoughts or feelings, the resulting habitual declines in closeness could eventually begin to erode long-term relationship quality. That is, over time, repeated short-term declines in subjective closeness in “recurrently threatening” situations may cause permanent decrements in general perceptions of closeness that could eventually destabilize and disrupt the partners’ relationships (see Simpson, Ickes, & Oriña, 2001). The dynamics of this hypothetical process should be explored and tested in future longitudinal research.

### *The Interpersonal Nature of Conflict*

According to Holmes and Murray (1996), dyadic conflict has been studied within three theoretical traditions: the behaviorist tradition (e.g., social learning theory), the cognitive tradition (e.g., attribution theory), and the interdependence tradition (e.g., interdependence theory). Few conflict resolution studies to date have combined these perspectives, despite the fact that neither the origins nor the outcomes of conflict can be fully understood without incorporating each viewpoint (for an exception, see Fletcher and Thomas, 2000). The current study contains elements of each tradition. Specifically, relevant conflict behaviors were recorded and coded from the discussions, the cognitive and emotional undercurrent of the discussions was assessed using “online” thought/feeling measures, and the way in which relationship partners affected and were affected by each other was measured and modeled.

A surprising number of relationship-based theories are not fully “interpersonal” in nature. Many theories make detailed predictions about how *actors* should think, feel, and behave in close relationships, but devote little if any attention to the important question of how their

relationship partners ought to affect them (the notable exception, of course, is interdependence theory). A few theories, however, do predict how partners are likely to influence the perceptions and behavior of actors in close relationships. One such theory is the empathic accuracy model; another is self-expansion theory (Aron & Aron, 1997). These two theories are linked by the common premise that one of the most extreme forms of interdependence occurs when perceivers' feelings of closeness are affected as strongly by the inferred content of their *partners'* thoughts and feelings as they are by the content of the perceivers' *own* thoughts and feelings. The results of the present study demonstrate this genuinely interpersonal, "cross-partner" form of interdependence in a sample of young married couples.

The major findings of the present study are consistent with previous findings in the social cognition and relationship literatures. With respect to the finding that subjective closeness declines when perceivers display greater empathic accuracy and their partners possess more relationship-threatening thoughts and feelings, previous research has documented that relationship partners are particularly sensitive to salient negative information because such information tends to be diagnostic of a partners' true attitudes, especially in conflict situations (e.g., Gaelick, Bodenhausen, & Wyer, 1985; Holtzworth-Monroe & Jacobson, 1985; Kelley, 1979; Noller, 1987). Moreover, the finding that subjective closeness tends to increase when actors are more empathically accurate and their partners possess non-threatening thoughts and feelings is consistent with the observation that heightened empathic accuracy may help perceivers understand and acknowledge their partners' perspectives on conflict-relevant issues (see Gottman, 1979).



Although speculative, repeated instances of heightened empathic accuracy when partners are harboring relationship-threatening thoughts and feelings might instigate or perpetuate negative reciprocity cycles, which are known to sustain and sometimes exacerbate relationship conflicts (Gottman & Levenson, 1986, 1992). While these cycles are well documented in the marital research literature, few theoretical explanations have been offered to account for them (see Weiss & Heyman, 1990). The empathic accuracy model suggests one possible triggering factor—consistently being empathically accurate in relationship-destabilizing situations when partners actually *are* harboring relationship-damaging thoughts and feelings. Future longitudinal research should investigate this possibility.

The APIM provides statistically independent tests of actor and partner effects. Using this technique, we found that declines in actors' subjective closeness were associated with both actors' own threatening thoughts and feelings (as a main effect) and with the inferred threatening thoughts and feelings harbored by their partners (as interaction effects involving actors' level of empathic accuracy). The fact that both types of effects emerged reveals that marriage partners are not just behaviorally interdependent; they are, because of their empathic accuracy, cognitively and emotionally interdependent as well (cf. Wegner, Giuliano, & Hertel, 1985).

#### *Avoidance of the Problem/Issue*

The empathic accuracy model makes no predictions about which behavioral cues might convey what relationship partners are thinking or feeling during social interactions. Indeed, the specific cues that might signal what partners are actually thinking or feeling are likely to differ depending upon who the interactants are, the social contexts in which interactions take place, and which topics or issues are discussed. The empathic accuracy model does, however, predict that

individuals should try to avoid or escape from potentially relationship-threatening situations when possible. Thus, the partners' tendency to avoid the issue *might* have been one behavioral cue that the perceivers used to clarify the threatening content of their partner's thoughts and feelings. Although this inference remains speculative, the results of previous research as well as the exploratory moderated mediation analyses support its plausibility.

Several studies have found that avoiding agreed-upon discussion issues may signal that partners are having negative thoughts about discussion topics (e.g., Gottman & Krokoff, 1989; Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991). Moreover, avoiding or "sidetracking" difficult issues is a common strategy employed by marital partners during such conflicts (Gottman & Krokoff, 1989), especially when couples reach an impasse and little more can be said or done to clarify or resolve persisting disagreements. In these circumstances, avoidance is likely to communicate that a partner is harboring negative thoughts and feelings and is therefore "shutting down." By using this strategy, partners can extricate themselves from unpleasant discussions or avoid making problems worse by not expressing their negative thoughts and feelings.

An examination of the videotaped discussions prior to coding revealed that participants in this study used several different tactics to avoid their problem/issue. Some were verbal, such as trying to change or shift the discussion topic, claiming that certain points did not require discussion, trying to reach premature closure on unresolved points, or simply refusing to discuss certain issue-relevant points. These varied verbal tactics were usually augmented by nonverbal expressions of avoidance, such as looking away from the partner while talking to him/her, looking at the floor or table during the discussion, appearing bored or uninterested in what was

being said, or displaying flat affect. We did not rate these specific verbal and nonverbal cues for two reasons. First, different participants used different tactics in varied combinations when exhibiting avoidance. Rating avoidance at the level of specific, discrete tactics, therefore, would not only have been difficult; it might have camouflaged the higher-level construct that accounted for the enactment of these assorted tactics. Second, we were interested in measuring the display and functional use of avoidance as a general interaction strategy. We acknowledge, however, that some cues probably signal topic avoidance more clearly for some couples in conflict resolution settings, whereas other cues may signal topic avoidance more clearly for other couples.

#### *The APIM and Dyadic Research*

The Actor/Partner Interdependence Model (Kashy & Kenny, 2000) permits researchers to test and model the statistical interdependence that naturally exists between partners in close relationships. Until recently, the development and complete testing of many relationship-based theories has been hindered by the lack of “dyadic” statistical tools capable of handling statistical interdependence. As noted earlier, few relationship-based theories make explicit predictions about partner effects. One exception is the empathic accuracy model (Ickes & Simpson, 1997, 2001), which predicts that the impact of an actor’s level of empathic accuracy on relationships should depend upon the specific content of the partner’s personal thoughts and feelings, especially in potentially relationship-threatening settings. As illustrated in this article, the APIM can be used to identify how actors and partners *jointly* influence one another during social interactions.

At a more global level, the APIM and other dyadic modeling techniques have the potential to change the way in which relationship research is conceptualized, designed, and

conducted. Because the APIM permits researchers to derive and test hypotheses involving both actor and partner effects, the simultaneous estimation of both types of effects should become common in future dyadic research. This new data-analytic capacity holds the promise of expanding theory and research in new and exciting directions.

### *Conclusions*

Contrary to the maxim that greater understanding is a sovereign cure for the various ills that plague relationships, the present research reveals that heightened empathic accuracy does not invariably have positive effects on close relationships. With regard to changes in subjective closeness, for example, the effects of greater empathic accuracy depend upon what relationship partners are thinking and feeling during conflict resolutions. Few studies have examined dyadic conflict by combining major components of the three theoretical traditions—behaviorist, cognitive, and interdependence (Holmes & Murray, 1996).

Testing a core prediction derived from Ickes and Simpson's (1997, 2001) empathic accuracy model, the present research incorporated aspects of each tradition. It reveals how *actors'* level of empathic accuracy (gleaned from the cognitive and emotional undercurrent of the conflict discussions) is systematically related to both interaction behaviors and changes in perceptions of the spouse/marriage, contingent upon the degree to which *partners'* are harboring relationship-threatening thoughts and feelings during conflict discussions. This truly interpersonal investigation of conflict sheds new light not only on how actors "manage" their empathic accuracy in challenging social interactions, but on the critical role that their partners assume in the process.

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### Footnotes

1. For example, Simpson, Ickes, and Blackstone (1995) found evidence that empathic accuracy was impaired by factors such as greater interdependence and insecurity that contributed to the level of perceived threat to the relationship. Simpson, Ickes, and Grich (1999), on the other hand, found that empathic accuracy was enhanced by the hypervigilance of anxiously attached women when their attachment-related concerns were activated in a relationship-threatening situation.

2. SEM, another useful tool for analyzing dyadic data, was not used to analyze these data because it does not permit direct tests of interactions.

3. A between-variable is one in which the averaged score for both partners in each dyad variable is one in which both members of a couple are assigned the same score. A within-dyad couple is constant across all couples. A mixed variable is one in which the averaged score for each couple is not constant, either within or between couples.

Even though couples assigned to the major problem condition reported (after the study) that they had discussed more serious problems than did couples assigned to the minor problem condition, both groups indicated that the severity of the discussed problem was below scale mid-points (i.e., slightly below “somewhat” severe). Thus, even in the major problem condition, the problems that were discussed were not perceived as severe. This reporting is typical of most satisfied, non-distressed married couples.

4. Thomas, Fletcher, and Lange (1997) have found that newlyweds are more likely than long-term married couples to have “shared” thought/feeling content during discussions and, therefore, slightly higher levels of empathic accuracy. The marriages in this study ranged in

length from 1 to 15 years. Marital length was slightly positively skewed, and it was not significantly correlated with any of the other variables. All of the statistically significant effects reported below remained significant when marital length was statistically controlled. Thus, the results reported below are *not* qualified by length of marriage, at least for marriages established 15 years or less.

5. Because the self-reported relationship-threatening/destabilizing thoughts and feelings index was highly correlated with the self-reported personal threat index (for both sexes,  $r = .79$ ), we report the effects involving only the thought/feeling index. An identical pattern of statistically significant effects emerged when the interaction of the actor's empathic accuracy and the partner's self-reported personal threat was regressed on changes in the actor's subjective closeness.

Table 1

*Descriptive Statistics*

	<u>Husbands:</u>	<u>Wives:</u>	<u>Mean</u>	<u>Matched-Pairs</u>
	<u>Mean:</u>	<u>Mean:</u>	<u>Difference:</u>	<u>t-tests:</u>
<u>Closeness</u>				
<u>Scores</u>				
IOS	5.34 (1.54)	5.57 (1.27)	-.23 (1.56)	$t(94) = -1.49, ns$
IOS (post- discussion)	5.38 (1.56)	5.30 (1.60)	.08 (1.57)	$t(94) = .52, ns$
<u>Empathic Accuracy Thought/Feeling Codes</u>				
Empathic Accuracy	26.01 (15.59)	26.03 (14.98)	.43 <sup>a</sup> (18.00)	$t(77) = .21, ns$
Degree to which thoughts were threatening or destabilizing to relationship				
Self	2.46 (1.46)	2.38 (1.43)	-.11 <sup>a</sup> (1.59)	$t(89) = -.64, ns$
Partner	3.04 (1.68)	3.65 (1.55)	-.60 <sup>a</sup> (1.85)	$t(84) = -3.01, p < .01$
Degree to which behavior conveyed thoughts and feelings				
Self	4.44 (1.38)	4.26 (1.43)	.19 <sup>a</sup> (1.70)	$t(88) = 1.07, ns$
Partner	4.48 (1.47)	4.63 (1.34)	-.15 <sup>a</sup> (1.97)	$t(83) = -.71, ns$
Observer- rated	3.94 (1.00)	3.57 (.93)	.37 (1.19)	$t(94) = 3.02, p < .01$
Degree to which participants felt threatened				
Self	2.15 (1.32)	2.08 (1.21)	.09 <sup>a</sup> (1.37)	$t(88) = .64, ns$
Partner	2.80 (1.76)	3.51 (1.55)	-.63 <sup>a</sup> (1.90)	$t(83) = -3.06, p < .01$
Observer- rated	2.53 (1.10)	2.34 (1.02)	.19 (1.00)	$t(94) = 1.84, ns$

Table 1 (continued)

Behavioral Codes

Reacted negatively	2.48 (.69)	2.53 (.68)	-.05 (.49)	$t(94) = -1.06, ns$
Expressed anger	2.38 (.69)	2.62 (.79)	-.33 (.64)	$t(94) = -5.00, p <.01$
Listened attentively	4.70 (.62)	4.89 (.54)	-.20 (.52)	$t(94) = -3.75, p <.01$
Acknowledged partner	3.97 (.75)	4.10 (.63)	-.13 (.53)	$t(94) = -2.40, p <.05$
Avoided issue	2.29 (.65)	2.12 (.38)	.18 (.61)	$t(94) = 2.81, p <.01$

*Note:* Standard deviations for each mean appear in parentheses. <sup>a</sup> Because of occasional missing data, the mean within-couple difference scores do not perfectly match the difference in the raw mean values for husbands versus wives. In certain cases, the raw mean values are based on a few more data points than the mean difference scores.

Table 2

*Correlations*

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
A	--	.78**	.01	-.32 **	-.33**	-.24*	.00	.40**	.37**	.09	-.50**	-.36**	-.31**	.12
B		---	.03	-.43**	-.42**	-.37**	-.10	.39**	.51**	.08	-.45**	-.36**	-.46**	-.14
C			---	.04	.08	-.03	-.12	-.03	.04	.21	-.03	-.05	-.02	-.11
D				---	.79**	.55**	-.10	-.34**	-.42**	.08	.40**	.41**	.35**	-.01
E					---	.49**	.04	-.26*	-.47**	.09	.38**	.43**	.40**	.04
F						---	.18	-.20	-.42**	.02	.42	.52**	.55**	.11
G							---	.07	-.18	.17	.05	.06	.12	.39**
H								---	.72**	.06	-.35	-.21	-.22*	-.02
I									---	-.02	-.41**	-.44	-.44**	-.12
J										---	-.03	.00	-.11	-.15
K											---	.79**	.61**	-.07
L												---	.62**	-.10
M													---	.09
N														---

*Note:* All correlations are two-tailed. Higher scores indicate higher values on each variable.

\*  $p < .05$       \*\*  $p < .01$

A = Male IOS, pre-discussion; B = Male IOS, post-discussion; C = Male empathic accuracy; D = Male relationship-threatening thoughts; E = Male self-reported threat; F = Observer-rated male threat; G = Observer-rated male avoidance; H = Female IOS, pre-discussion; I = Female IOS, post-discussion; J = Female empathic accuracy; K = Female relationship-threatening thoughts; L = Female self-reported threat; M = Observer-rated female threat; N = Observer-rated female avoidance.

## Figure Captions

*Figure 1.* Actor/Partner effects. The paths labeled “A” represent actor effects; those labeled “B” represent partner effects.

*Figure 2.* The interaction of actor’s empathic accuracy (EA) and partner’s self-reported threatening/destabilizing thoughts and feelings predicting changes in actor’s subjective closeness. Values are plotted for participants scoring 1 SD above and 1 SD below the sample mean on each measure. Higher values for change in closeness (reported on the y-axis) represent increased pre-to-post discussion closeness; lower values represent decreased closeness. Values of 0 indicate no change.

*Figure 3.* The interaction of actor’s empathic accuracy (EA) and partner’s observer-rated threatening/destabilizing thoughts and feelings predicting changes in actor’s subjective closeness. Values are plotted for participants scoring 1 SD above and 1 SD below the sample mean on each measure. Higher values for change in closeness (reported on the y-axis) represent increased pre-to-post discussion closeness; lower values represent decreased closeness. Values of 0 indicate no change.

*Figure 4.* The interaction of the actor’s empathic accuracy (EA) and partner’s observer-rated threat predicting the partner’s observer-rated avoidance of the issue. Values are plotted for participants scoring 1 SD above and 1 SD below the sample mean on each measure. Higher values for avoidance (reported on the y-axis) represent greater avoidance of the issue; lower values represent less avoidance of the issue.

*Figure 5.* The association between the interaction of the actor’s empathic accuracy (EA) and their partner’s self-reported (SR) threatening thoughts and feelings predicting changes in actor’s

subjective closeness, as partially mediated through observer-rated partner avoidance of the discussion issue. Reported values are standardized  $\beta$ s. The  $\beta$  in parentheses is the direct effect of the interaction term predicting changes in actor's closeness. The  $\beta$  not in parentheses is the association between the interaction term and changes in actor's closeness, with the mediator partialled out. +  $p < .10$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

*Figure 6.* The association between the interaction of the actor's empathic accuracy (EA) and their partner's observer-rated (OR) threatening thoughts and feelings predicting changes in actor's subjective closeness, as partially mediated through observer-rated partner avoidance of the discussion issue. Reported values are standardized  $\beta$ s. The  $\beta$  in parentheses is the direct effect of the interaction term predicting changes in actor's closeness. The  $\beta$  not in parentheses is the association between the interaction term and changes in actor's closeness, with the mediator partialled out. \*  $p < .05$ , \*\*  $p < .01$ .













