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Yours, Mine, and Ours
Mutual Attributions for Nonverbal Behaviors in Couples' Interactions

In this article, we argue that nonverbal cues act much like other behaviors in triggering attribution making in couples' interactions. In a test of this contention with 60 couples, we found that negative behaviors were more likely than positive nonverbal cues to be noticed, satisfaction was related to attributions for positive behaviors, mutual attributions for the same behaviors differed significantly, and self-other attributional differences were enhanced by relational satisfaction. These results extend previous applications of attribution theory by providing some validation for the use of attribution theories with nonverbal behaviors and by showing that attribution making occurs in a way that reflects the mutually occurring, dyadic level of interpersonal communication.

Both the communicative power and the interpretive problems introduced by nonverbal behaviors stem from the belief that nonlanguage cues are inherently ambiguous. Although certain behaviors—particularly when they are accompanied by additional, consistent cues—may have an obvious social meaning (Burgoon, Coker, & Coker, 1986), other nonverbal actions are likely to prompt interpretation. Because an assigned meaning usually depends on the schemas activated at the time the cue occurs (Baldwin, 1992), and because a given cue can be a part of myriad meanings or functions (Burgoon, 1994; Patterson, 1982), nonverbal behaviors are generally subject to a range of possible interpretations.

The potential ambiguity of nonverbal cues has at least two consequences for communication researchers. First, theoretical explanations for how people interpret and act on nonverbal behavior must take into account the

variety of meanings that may be attached to behavior. Second, the interpretations made for nonverbal cues are likely to be affected by the context in which they occur; thus, research is most valid when cues are studied within their most common setting. This article attempts to account for both of these concerns by (a) continuing a line of investigation applying attribution theories to nonverbal behavior and (b) focusing on attributions for nonverbal cues as they occur in intimate relationships. The latter includes extending the domain of causal sense making to look at mutually occurring attributions in couples' interactions because co-occurring sense making reflects the inherently dyadic nature of interpersonal interaction.

Attribution Theories

Attributions can be viewed as the meanings people give to their own and others' actions and are reflected in the causes perceived to underlie the behavior's occurrence (Heider, 1958; Jones & McGillis, 1976; Kelley, 1972). These attributions have been found to vary from one another along a number of continua but are generally one of two types: causal and responsibility attributions. Causal attributions differ based on the degree to which a person sees a behavior as due to some personal, dispositional quality (internal locus) or by a situational or environmental event (external locus); the degree to which it is a stable or unstable characteristic of the person or situation; and the extent to which it is specific to a setting or context or reflects a more global condition (Weiner, 1986). Responsibility attributions reflect the perceived extent of personal responsibility, control, and intentionality behind an action (Harvey & Weary, 1981).

In addition to varying along a number of structural dimensions, attributions also reflect variety in meaning making because the choice of one type of attribution is likely to be biased by a number of factors, including the attributer's expectations and feelings (Bradley, 1978; Forsyth, 1980; Hewes & Planalp, 1982); that is, people are likely to choose an attribution that is consistent with the way they think about themselves or others. The influence of expectancies and biases in the attribution process is consistent with other models of how meaning is assigned to nonverbal behavior (e.g., Expectancy Violations Theory: Burgoon & Hale, 1988; Discrepancy-Arousal Theory: Cappella & Greene, 1982; Parallel Process Model: Patterson, 1995).

Attribution theories' focus on the inherent ambiguity of behavior and the role that perceivers have in determining for themselves what caused a particular action make them a useful perspective for understanding how people make sense of nonverbal cues. Despite this potential, however, they

have not been applied to nonverbal behaviors extensively. Manusov (1990) provided a rationale for why nonverbal cues have not been studied widely in the past. She explained this lack of research by observing that behaviors have to be seen as potentially controllable and intentional to fall under the auspices of attributional processing. She was able to show, however, that people generally believe that nonverbal cues are at times used with intent (Manusov, 1992; Manusov & Rodriguez, 1989), that people can control many of their nonverbal behaviors, and that nonverbal cues are thus likely to be subject to attributions that are similar to those made for other actions.

Although there is increasing evidence that people make attributions for nonverbal cues in much the same way they interpret other behaviors (e.g., Fincham & Bradbury, 1992; Gottman & Krokoff, 1989; Manusov, 1990, 1995a), more research is needed to substantiate this claim. Toward this end, we first review previous work done in the context of personal relationships to find patterns of attributions for behaviors other than nonverbal cues. We then propose hypotheses consistent with this research to test whether the same type of attribution making occurs with nonverbal behaviors. Finally, we investigate areas underexplored in previous investigations of sense making in intimates' interactions: mutually occurring attributions for self and partner behavior.

Attribution Theories in Marital/ Intimate Relationships

Previous Applications

One of the challenges to attribution theorists is to discern when attribution processing actually occurs. There is ample evidence that much meaning making happens spontaneously, and people are often unaware of the interpretations they make for their own or others' actions (Langer, 1978; Scott, Fuhrman, & Wyer, 1991). Importantly, however, researchers have found a number of conditions under which people use more overt attribution making (Pszyszynski & Greenberg, 1981; Wong & Weiner, 1981). In particular, attributions are most common when actions are highly salient, negative, or unexpected. Even for satisfied couples, negative cues are most likely to catch partners' attention and encourage interpretation, although this appears to occur more often with distressed couples (Camper, Jacobson, Holtzworth-Munroe, & Schmaling, 1988; Fincham & Bradbury, 1993; Jacobson, Follette, & McDonald, 1982; Jacobson, Waldron, & Moore, 1980; Weiss & Heyman, 1990).

Consistent with this literature, a range of important relational events has been included in research on attributions by intimates, but the focus has been primarily on negative behaviors. The most common behavior studied as part of attribution making in intimate relationships is conflict or problem solving (e.g., Bradbury & Fincham, 1990; Burman, Margolin, & John, 1993; Camper et al., 1988), although a number of researchers have investigated violence (e.g., Cantos, Neidig, & O'Leary, 1993; Holtzworth-Munroe, Jacobson, Fehrenbach, & Frussetti, 1992), areas of difficulty (e.g., Karney, Bradbury, Fincham, & Sullivan, 1994), and negative partner behaviors such as criticism (e.g., Fincham & Bradbury, 1992). Although these behaviors may occur in all relationships, researchers have learned that dissatisfied couples are more likely than satisfied dyads to react overtly to their partners' negative actions (Gottman, 1979; Gottman, Markman, & Notarius, 1977).

This reactivity occurs in a number of ways. First, dissatisfied couples are more likely to reciprocate negative behaviors than are satisfied couples (Gottman, 1979; Manusov, 1995b; Pike & Sillars, 1985), and when they do engage in negative cycles, satisfied couples are able to exit them more quickly (Burman et al., 1993). Given that "the interaction pattern characteristic of two people is the heart of their relationship" (Berscheid, 1994, p. 89), the proclivity to react behaviorally to a partner's cues and the tendency to let those behavioral reactions spiral may affect or reflect the stability of the relationship (Bradbury, Beach, Fincham, & Nelson, 1996; Fincham & Osborne, 1995; Miller & Bradbury, 1995).

Second, and more germane to this study, the interpretation given for why a partner enacted the cues that he or she did also adds to the weight or effect of the behavior. According to Jacobson and Margolin (1979), "attributions on the part of one spouse regarding the 'intent' of the partner's behavior can moderate the reinforcing effects of that behavior" (p. 12). These attributions tend to be patterned, with satisfied couples more likely to generate relationship-enhancing attributions, and dissatisfied pairs more commonly making distress-maintaining interpretations (Holtzworth-Munroe & Jacobson, 1985; Horneffer & Fincham, 1996; Jacobson, 1984).

With relationship-enhancing attributions, negative behaviors are viewed as elicited by more external, unstable, and specific causes, and are less likely to be viewed as controllable, intentional, or the responsibility of the partner. Positive cues are given the opposite attributional structure. Conversely, in distress-maintaining attributions (also known as maladaptive attributions; Bradbury & Fincham, 1992), negative behaviors are viewed as stemming from internal, stable, and global causes, and the partner is in control, intentional, and

responsible for their occurrence; partners of those who are dissatisfied are less likely to be seen as the cause of or responsible for positive cues.

Researchers have found consistent support for these claims (Fincham, Beach, & Nelson, 1987; Fincham & Bradbury, 1993; Karney et al., 1994), at least with some attributional dimensions (Bradbury & Fincham, 1990). As noted earlier, this research has focused primarily on behaviors other than nonverbal ones—actions that may have a unique set of interpretive frames. More work is needed to validate whether the same type of attributions occur for the potentially more subtle and ambiguous nonverbal cues used by couples in their interactions.

Additional Applications

Most of the previous research discussed above concentrates on how one person makes attributions for his or her partner, but this is only one possible place where attribution making is likely to arise in relationships. As in all interpersonal communication, where participants act and react in relationship to one another and where individuals think about themselves as well as their partners, couple members may also make attributions for their own behaviors. Further, these cues are likewise subject to attributional distortions.

Researchers studying attributions among nonintimates, for example, found an egocentric bias to attribution making. This bias results in overreporting the frequency of one's own behavior and underreporting the occurrence of others' actions (Baucom, 1987; Christensen, Sullaway, & King, 1983; Thompson & Kelley, 1981). When people do report on others' behaviors, the attributions given tend to be more internal, stable, and global than the causality reflected in their own actions (Jones & Nisbett, 1972). This actor-observer bias is augmented when the behaviors observed are negative.

The work that has been done on intimates' behavior finds similar results, although the effects may be tempered by type of event and satisfaction level (Guthrie & Noller, 1988). Fincham and Beach (1988), for example, noted that distressed spouses saw their own behavior as more unintentional and as less selfishly motivated than that of their partners. Those who were more satisfied made benign attributions for both themselves and their partners, although even satisfied couple members give themselves more positive intentions than they give to their partners (Noller, 1992).

Similarly, Fincham, Beach, and Baucom (1987) found that their dissatisfied participants made more self-enhancing attributions (i.e., gave more credit to self than other for positive events and took less responsibility for negative actions), and satisfied couples made more spouse-enhancing inter-

pretations (i.e., applied a more similar pattern to their spouse's actions as they did for their own behaviors). This may occur when discussing behaviors in general (i.e., "all of my behaviors versus all of yours") and also when focusing on a particular behavior or set of behaviors (i.e., "this is my view of that action, and that is yours").

Hypotheses

As can be seen from this review, a relatively robust set of research findings suggests a number of hypotheses for the nature of attribution making and the relationship between attributions and relational satisfaction. As noted, however, the research discussed above has been based largely on interaction behaviors such as problem solving or conflict (Bradbury & Fincham, 1990). Despite the strength of the conclusions regarding attribution making in couples, it is important to test them specifically with nonverbal cues, as such behaviors have the potential to be more subtle (and therefore not noticed) or ambiguous (i.e., they may lead to a larger range of attributions). Thus, the theory and research summarized above give rise to a number of hypotheses regarding nonverbal behaviors and attribution processes.

First, because of the contention that negative behaviors more commonly instigate attribution making than do positive cues (Camper et al., 1988; Fincham & Bradbury, 1993; Jacobson et al., 1982; Jacobson et al., 1980; Weiss & Heyman, 1990) and that this tendency to focus on negative cues is likely to be exaggerated by satisfaction with a relationship, we predict that

> H1a: Participants will be more likely to report noticing negative rather than positive nonverbal behaviors.
> H1b: There is (a) a negative association between participants' relational satisfaction level and their likelihood of noticing negative behaviors and (b) a positive association between satisfaction level and the likelihood of noticing positive behavior.

Second, specific attributions made for behaviors are associated with satisfaction level (Bradbury & Fincham, 1990; Camper et al., 1988; Fincham, Beach, & Nelson, 1987; Karney et al., 1994). In particular, satisfied couples make more relationship-enhancing attributions for both positive and negative cues, and dissatisfied couples create more distress-maintaining attributions. Relationship-enhancing attributions reflect the cause of negative behaviors as less, and positive behaviors as more, internal, stable, and global to their partner (causal attributions); they also reflect that their partners' negative behaviors are less, and positive behaviors are more, controllable,

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intentional, and due to personal responsibility (responsibility attributions). Distress-maintaining attributions reflect the opposite pattern.

Based on this theory and research, we predict that

> H2a: There is a negative relationship between relational satisfaction and participants' likelihood of making distress-maintaining causal and responsibility attributions for negative behavior.
>
> H2b: There is a positive relationship between relational satisfaction and couple members' likelihood of making relationship-enhancing causal and responsibility attributions for positive behavior.

Third, there are perspective differences in the ways that people make sense of their own and their partners' behaviors. This actor-observer bias (Jones & Nisbett, 1972) suggests that people are likely to see their own behaviors as less negative than they view their partners' behaviors (Noller, 1992). As well, attributions are generally self-enhancing (i.e., people are less likely to see themselves as the cause of and responsible for a particular negative behavior than their partner views them to be; Christensen et al., 1983). In both cases, however, the tendency to make distinctions is likely to be moderated by satisfaction level (Fincham, Beach, & Baucom, 1987; Thompson & Kelley, 1981). This moderating effect may occur with respect to behaviors in general and when focusing on a particular behavior or set of behaviors. Therefore, we predict that

> H3a: Participants will be more likely to see their partners' negative behaviors as (a) more internal, stable, global, and (b) more controllable, intentional, and based on personal responsibility, than their own behaviors.
>
> H3b: There is a negative relationship between relational satisfaction and participants' likelihood of making attributions for their partners' negative behaviors that are more (a) internal, stable, global, and (b) controllable, intentional, and based on personal responsibility than the attributions they make for their own behaviors.
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> H4a: Participants will be likely to view their own negative behavior as more (a) external, unstable, specific, and (b) uncontrollable, unintentional, and not their responsibility than their partner views the actions.
>
> H4b: There is a negative relationship between relational satisfaction and couple members' likelihood of making attributions for their own negative behaviors that are more (a) external, unstable, specific, and (b) uncontrollable, unintentional, and not their responsibility compared to their partners' attributions for the cues.

Method

Participants

Couples (N = 60) were recruited from classes in speech communication at a large university in the Northwest. Heterosexual students who were married or in self-defined committed relationships, or those who recruited such couples, received extra credit in their classes for their participation. Fifty of these couples were part of Study 2 in Manusov (1995b), and parts of the following methodology are also reported there.

Demographic data were taken for one member of each couple (see reasoning below). Thirty-three of these participants were female and 27 were male. The respondents ranged in age from 18 to 49 (M = 23.8, SD = 7.39) and had been with their partners from 1 to 330 months (27 1/2 years) (M = 39.52 months, SD = 66.88). Most (n = 54) were unmarried, and of these most (n = 40) were dating/engaged but not living together. Thirty-five were Caucasian, 21 were Asian (most non-U.S.), and 3 were African American.

Procedure

The couples arrived at the research site and completed consent forms. The couple members were asked to go to a room—separate from their partner—to complete questionnaires. Based on the room each couple member chose, he or she became a study confederate or a naive participant. Both, however, began by completing Norton's (1983) Quality Marital Inventory (QMI; M = 84.5, range = 56 to 110 for the naive participants, and M = 87.7, range = 40 to 101 for the confederates). The naive participants also completed the demographic questions noted above and were given magazines to read until the observation room was ready. They were told their partners were following the same procedures. Instead, the partners were asked to become the confederates in the study.

The confederates were told that the researchers were interested in the ways people react to changes in their partners' nonverbal behaviors. Because of that, the confederates were asked to act positive at one point in the interaction and negative at a second point. All of the confederates agreed to take part, and they were trained in a set of positively and negatively valenced nonverbal cues. The positive cues included forward lean, vocal and facial animation and pleasantness, more eye contact, touch, smiling, and head nods, and postural attentiveness. Negative cues involved more body and

object adapters, less gaze, unpleasant face and voice, more vocal fillers (e.g., sighing), slower rate, backward lean, and postural inattentiveness. These are the behaviors usually associated with nonverbal involvement, activity, and affect—three of the most common behavioral composites (e.g., Andersen, 1985; Burgoon & Newton, 1991; Manusov, 1995b). Training continued until each confederate felt comfortable using the cues.

The confederates were also instructed on when to start and stop the behaviors. The camera operator (seated behind the participant) was to hold up time cards to help the couple "keep track of the interaction time." In actuality, these cards were designed to let the confederates know when to employ certain cues. Neutral (baseline) behaviors were to be used when a yellow time card was raised. Yellow cards (with an "=" sign on them) were held up every 2 minutes during the first 6 minutes of the interaction. A green time card (with a "+" sign on it) indicated the beginning of positive behaviors. After 2 minutes, this card was followed by a yellow card to indicate a change back to baseline cues, and the card was held for an additional 2 minutes. A red card (with a "-" sign on it) showed the confederates when to begin their negative behaviors, and after 2 minutes this too was followed by a yellow card. A neutral yellow card was held up for the final minute. The order of the positive and negative cards was randomly assigned and counterbalanced across the interactions.

The pair was then reunited and asked to talk about upcoming travel plans or planning a party. These topics were chosen because they were thought to be relatively neutral and yet engaging for the interactants. The topics had been given to the pair prior to the study, and a number of couples brought along information to help in their planning. These conversations lasted 15 minutes. Following the interactions, both pair members were asked to complete questionnaires regarding their conversation to discern what behaviors were noticed and what attributions/meanings they gave to the behaviors, if any. The couple members were then debriefed.

Measurements

MANIPULATION OF BEHAVIORS

The videotapes were reviewed following data collection to check on the occurrence of the manipulated behaviors. Raters scored the confederates' behaviors during the second minute of the baseline, positive, and negative time periods on 7-point scales. To reduce the number of analyses, and to reflect the fact that nonverbal cues tend to cluster into meaningful functions

in interactions, the rated cues included the following three composites: (a) affect (vocal pleasantness, vocal warmth, facial pleasantness, and smiling), (b) vocal activity (talkativeness, pitch variation, speed, and loudness), and (c) involvement cues (proximity, postural attentiveness, and body orientation). A score of 1 on the 7-point scale represented more negative affect, less activity, and less involvement. Composite scales were created by summing the ratings for each item within the nonverbal function.

Ten interactions were not successfully recorded, but the confederates' behaviors in the remaining 50 conversations were assessed. Repeated measures' (positive, neutral, negative) ANOVAs were run to check for differences across the time periods for each of the three nonverbal functions: affect, $F(2, 46) = 89.69, p < .001$; activity, $F(2, 46) = 23.03, p < .001$; involvement, $F(2, 46) = 103.65, p < .001$. As the data of Table 1 demonstrate, the confederates successfully changed their nonverbal behaviors in the expected directions, and Student-Neuman-Keuls post hoc tests showed that the differences occurred between all three means within each function. Thus, the manipulation was successful.

SATISFACTION

As noted, satisfaction levels were gauged in this study with the QMI (α = .85). Norton's (1983) measure was used because it assesses satisfaction separately from the occurrence of communication behaviors. Other commonly used scales (e.g., DAS: Spanier, 1976; MAT: Locke & Wallace, 1959) correlate satisfaction with how many positive or negative communication behaviors occur in couples' interactions (see Bradbury & Fincham, 1990), and this may confound the results of a study investigating communicative phenomena.

ASSESSING ATTRIBUTIONS

Attributions, and the behaviors that led to them, were garnered from the questionnaire completed after the interaction. On their questionnaire, participants were presented with items meant to elicit attributions for their partners' behaviors and for their own actions. They were given the following information:

> We are concerned in this study that we get videotapes of behaviors that are pretty "natural" or typical of the behaviors that people use when

Table 1
Results of Manipulation Check With df (2, 46) on Confederates' Behaviors[a]

Nonverbal Functions	Negative	Baseline	Positive
Affect			
M	11.67	17.57	20.98
SD	2.62	3.63	3.47
Activity			
M	13.39	16.61	17.65
SD	3.31	2.99	2.98
Involvement			
M	11.92	19.90	23.04
SD	3.71	3.61	3.14

a. SNK post hoc tests showed that all means within functions were significantly different from one another.

they are together in their daily life. Because we cannot be sure of this, we need to find out from each person if there were any behaviors that were noticed while the conversation was videotaped. We are asking each person to discuss his or her partner's behaviors as well as about his or her own actions.

The participants were then asked to complete a series of "yes" or "no" and open-ended questions. To be sure that the behaviors noticed were consistent with the manipulated behaviors and that they were the cues that instigated the attributions, the participants were first asked: "Did any of your partner's behaviors stand out to you during the videotaping? If yes, please describe the behaviors that you noticed and approximately when you noticed them. If there was more than one behavior that you noticed, or if you noticed behaviors at different times, please write down all of these."

If they answered "yes" to the first question, two further items accessed their attribution for the behavior. First, the participants were asked these questions: "What did the behaviors mean to you? What was communicated?" Second, they were given the following, more direct, question: "Referring to the same behaviors, what do you think would explain their behaviors?" All participants were then asked to describe any of their own behaviors they had noticed. We assessed this by asking the following: "Did you notice that you acted differently than you normally do? If yes, please describe and explain those behaviors." Open-ended questions were used instead of attribution scales because the former are more likely to be tied to the specific behaviors investigated in this study rather than the result of general feelings toward a partner (Bradbury & Fincham, 1990).

Confederates were given a different questionnaire. Their postinteraction form stated:

Thank you for agreeing to be a part of this study. Your partner is answering some questions about your behaviors and whether or not he or she noticed anything unusual. We would also like to ask you a few questions.

The form then asked the confederates to react to the following: "When you were changing your behaviors, did you notice your partner react in any way? If yes, please describe the behaviors. Explain why you think he or she responded this way." To give them a task equal in time to their partners, the confederates were then asked to discuss anything about the study and their role in it.

ATTRIBUTIONAL RATINGS

Two raters, who were blind to the hypotheses, assessed the questionnaires for evidence of attribution making. Using several of the questionnaire responses, the raters were trained by the principal investigator to review the postinteraction questionnaires for a number of things. First, during the course of two sessions, they learned to discern the valence of the behaviors noticed. This was usually shown clearly in the way the behavior was described. For example, one participant wrote: "He was a bit more reserved. Normally his voice influctuations [sic] might have changed more frequently, more uninhibited gestures too." In response to the question about her own behavior, another stated that she acted "Less relaxed physically—legs crossed and hands on knees." Both of these reflect sets of behaviors viewed by the participants as negative. Similarly, an example of a positively valenced cue was seen when a confederate wrote: "When the positive came up and I got closer, she got closer also."

Second, the raters were instructed to discern if the behaviors[2] were nonverbal cues. In many cases, this was a simple assessment (e.g., "She grinned and giggled several times"). On some questionnaires, however, assessing the behaviors was difficult, as the participants often described the apparent nature of the behavior (e.g., "He was . . . not as energetic during the conversation") but did not specifically identify the cues. In such cases, the raters were instructed to count the entries as acceptable if the meaning attached was typically one associated with nonverbal behaviors (e.g., "She acted nervous"). The most common cases to be eliminated referred specifically to things that were said during the conversation (e.g., "He kept asking that I was jealous when I asked him with whom he went to Las Vegas last December")

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Third, if the behaviors were consistent, the raters reviewed the questions related to the meaning and the explanation of the partners' behaviors to find evidence of attributional statements (anything that indicated a cause of or responsibility for the behaviors; e.g., "It's his habit" or "He was nervous because we were being videotaped"). When an attribution was presented, the raters wrote it down and judged it on six 7-point scales corresponding to the causal and responsibility dimensions used in previous research (e.g., Bradbury & Fincham, 1992; Camper et al., 1988; Karney et al., 1994; Manusov, 1990; Weiner, 1985). As noted, the causal attributions were (a) 1 (*external*) to 7 (*internal*), (b) 1 (*unstable*) to 7 (*stable*), and (c) 1 (*specific*) to 7 (*global*). The responsibility attributions were (a) 1 (*uncontrollable*) to 7 (*controllable*), (b) 1 (*unintentional*) to 7 (*intentional*), and (c) 1 (*not personally responsible*) to 7 (*personally responsible*).

An example of this procedure is as follows. One participant said that he noticed his partner was speaking softly. The attributions that he made for her vocalic cue were that she was nervous because of the camera, and she was hungry. The soft voice were viewed as a negative cue, and it counted as a nonverbal behavior. The raters also saw the cue as reflecting some external causality (due to the camera) but slightly more internal causality (nervous and hungry). Thus, it was rated a 5 on locus. It was rated as a quite unstable 2, because she is unlikely to remain hungry or nervous. The raters also saw the cause to be relatively specific to the context (3) because of the camera, but the hunger part of the attribution made it somewhat less specific. For the responsibility attributions, the raters saw that the attribution had elements of control (she could have eaten) and some lack of control (nervousness) and thus rated this attribution a 4 on control, with a 3 on intentionality because there was less evidence that she was hungry on purpose. Similarly, the raters held her somewhat less personally responsible for the fact that she was nervous and hungry (3).

On the rating sheets, then, participants could have no scores (if the behaviors were inconsistent with the manipulation, if they checked that they did not notice anything during the interaction, or if they did not provide explanations for the behaviors that reflected attributions), one set of scores (for either positive or negative cues), or two sets of attribution scores for their partners' behaviors (positive and negative). The same rating procedure was applied to the participants' self-judgments and the confederates' attributions for their partners' behaviors.

Each rater was responsible for all of the questionnaires. Each rated the participants' sheets for half of the interactions and then scored the confederates' attributions for the other half. Following this procedure, the raters met

and scored 10 of the other's sheets. From these, 33 sets of behaviors were rated. These were used to assess the reliability for discerning the behavior's valence (κ = .91), whether the behaviors counted as nonverbal and should therefore be rated (κ = .87), and whether an attributional statement was made for the behaviors (κ = .91). As well, the raters' scoring on the six attributional scales was checked for consistency. Cronbach's alpha coefficient showed that the raters were consistent with one another for all of the dimensions, although somewhat low for intentionality and responsibility (locus = .87, stability = .75, globality = .77, controllability = .75, intentionality = .69, and responsibility = .61).

Results

Attribution making and nonverbal behaviors within couples may differ by sex (Fincham & Bradbury, 1993; Gottman & Krokoff, 1989; Holtzworth-Munroe et al., 1992; Noller, 1992; Noller & Ruzzene, 1991), and many analyses of marital or intimate interaction are conducted separately for men and women. A complete analysis should include both overall and sex-specific attributions; thus, analyses for this study were conducted across the sample and also for each sex separately.

Hypothesis 1

Hypothesis 1a predicted that all participants would be more likely to make attributions for negative rather than for positive behaviors. To test H1a, counts were made of the number of participants who provided attributions for their partners' negative (n = 36) and positive behavior (n = 7), and a chi-square test with Yates's correction showed that this difference was significant, χ^2 = 9.78, p < .05. This was found for both females, χ^2 = 4.50, p < .05, and males, χ^2 = 5.44, p < .05. Hypothesis 1a was supported.

Hypothesis 1b stated that there would be a negative relationship between relational satisfaction and the tendency to report noticing negative cues, and it predicted a positive relationship between satisfaction and the tendency to note positive behaviors. To assess H1b, scores were created that represented whether attributions were given to partners' negative and positive behaviors. If the participants made an attribution for both positive and negative behaviors, each behavior type received a proportion score of 50. If the participant provided no attributions, both negative and positive proportions were 0. If only one behavior-valence type was noted, it received a score of 100. Pearson correlations were run between scores on the QMI and proportion of

negative attributions for the entire sample and for male and female participants. The same was done for positive attributions.

For the sample (N = 60), the correlation between QMI and proportion scores for negative behaviors was not significant, $r = -.07, p < .28$, but there was an hypothesis-confirming trend for positive cues, $r = .29, p < .07$. The analysis for males ($n = 27$) found no support for the increased noticing of more partner negative behaviors, $r = .19, p < .17$, but there was a significant relationship for noticing positive behaviors, $r = .41, p < .02$. For females ($n = 33$), there was a trend for negative behaviors, $r = -.25, p < .08$, but there was no significant relationship for positive cues, $r = .05, p < .39$. Hypothesis 1B was partially supported.

Hypothesis 2

Hypothesis 2a predicted that satisfaction would be negatively related to distress-maintaining attributions, and Hypothesis 2b stated that satisfaction would be positively associated with relationship-enhancing attributions. Based on the argument that individual attributions follow a different pattern than do composites of behaviors (e.g., Fincham & Bradbury, 1993), but a concern with making Type I errors from a series of separate analyses, four multiple regressions (MR) were run with QMI scores as the criterion variable. Two sets of analyses were done for negative behaviors (Hypothesis 2a): one with the three causal attributions and one with the three responsibility attributions as the predictor variables. Two MRs were also run for positive behaviors (Hypothesis 2b), with causal and responsibility attributions.

Thirty-six participants (females = 20, males = 16) had entries for negative behaviors. The multiple regression on their scores, with the three causal attributions (locus, stability, and globality) as the predictor variables and QMI score as the criterion variable, was not significant for the sample, $F(3, 32) = .79, p < .51$; for females, $F(3, 16) = 1.70, p < .21$; or for males, $F(3, 12) = .83, p < .50$. The multiple regression for the three responsibility attributions (controllability, intentionality, and personal responsibility) was also not significant for the sample, $F(3, 32) = .03, p < .99$; for female participants, $F(3, 16) = .04, p = .98$; or for males, $F(3, 12) = .59, p < .63$. Hypothesis 2a was not supported.

Only 7 participants (females = 5, males = 2) had entries for positive behaviors, and so only a sample-wide MR was run between relational satisfaction and the causal attributions, $F(3, 3) = .41, p < .75$, and between relational satisfaction and the responsibility attributions, $F(3, 3) = 2.22, p < .26$. Neither MR was significant, and Hypothesis 2b was not supported.

Hypothesis 3

Hypothesis 3 was one of two hypotheses predicting actor-observer differences in attributions. Specifically, Hypothesis 3a predicted that all couple members are likely to view their partners' negative behaviors as more internal, stable, and global (causal attributions) and as more controllable, intentional, and personally responsible (responsibility attributions) than they view their own cues, and Hypothesis 3b predicted that this tendency would be greater as relational dissatisfaction increased.

Paired samples t tests were run comparing the participants' attribution score for their own negative behavior with their attribution score for the confederates' behavior. Because multivariate tests could not be run, a Bonferroni correction was used to reduce the likelihood of Type I error. Three tests were done for each attribution composite (using the three causal scales and the three responsibility scales), thus a corrected p value of .02 was used.

Twenty participants made attributions for both their own and their partners' negative behavior, but no significant differences were found for the sample (see Table 2). However, all means were in the hypothesized direction, except for the stability dimension.

Separate analyses for males ($n = 10$) and females ($n = 10$) showed only one trend within the male sample, $t(9) = 1.96$, $SD = .48$, $p < .08$, $\eta^2 = .18$. Males were somewhat more likely to see their own behaviors as uncontrollable ($M = 2.70$) than they do their partners' behaviors ($M = 3.00$). Hypothesis 3a was not supported.

Hypothesis 3b was analyzed with multiple regressions between QMI scores as the criterion variable and the absolute value of difference scores—between one's own attribution and the attribution he or she made for the partner—for each of the causal and responsibility ratings as the predictor variables. The latter were created by subtracting the participants' attributions for their partners' behaviors from the attribution scores for their own behaviors. The prediction was that the size of the difference would be negatively associated with satisfaction.

Twenty participants had entries for both themselves and their partners. The multiple regression between QMI scores and the difference scores for causality resulted in a trend, $F(3, 16) = 1.94$, $p < .16$, adj. $R^2 = .13$, and this was due largely to an hypothesis-confirming negative relationship between satisfaction and size of difference scores for locus, $b = -3.37$, $t(19) = -2.21$, $p < .04$, $\eta^2 = .10$.

The MR for females ($n = 10$) was significant, $F(3, 6) = 5.74$, $p < .04$, adj. $R^2 = .34$, and was due primarily to a hypothesis-confirming relationship with

Table 2

Full Sample t Tests (df = 19) Comparing Self Attributions to Other Attributions

Dimension	Self		Other				
	M	*SD*	*M*	*SD*	*t*	*p*	η^2
Causal attributions							
Locus	1.75	1.21	2.05	1.73	.67	.51	.03
Stability	2.45	1.39	2.35	1.09	−.28	.78	.01
Globality	2.05	1.15	2.15	1.42	.33	.74	.02
Responsibility attributions							
Controllability	2.60	1.05	2.85	1.18	1.23	.23	.06
Intentionality	2.95	1.23	3.00	1.34	.20	.84	.01
Responsibility	2.80	1.20	3.30	1.34	1.60	.13	.07

causal locus, $b = -6.74$, $t(9) = -2.40$, $p < .04$, $\eta^2 = .22$. The MR for males ($n = 10$) showed a trend, $F(3, 6) = 2.31$, $p < .17$, adj. $R^2 = .30$, but none of the specific relationships was significant.

The multiple regression between QMI scores and the *responsibility* difference scores found a trend for the sample, $F(3, 16) = 2.10$, $p < .14$, adj. $R^2 = .15$, and this was due primarily to a significant relationship for controllability, $b = -6.99$, $t(19) = -2.54$, $p < .02$, $\eta^2 = .12$. For females, there was also a trend, $F(3, 6) = 3.29$, $p < .10$, adj. $R^2 = .43$, and it was due primarily to controllability, $b = -23.42$, $t(9) = -2.21$, $p < .07$, $\eta^2 = .19$. For males, there was a significant overall effect, $F(3, 6) = 9.98$, $p < .01$, adj. $R^2 = .50$, due primarily to intentionality, $b = -5.96$, $t(9) = -3.16$. $p < .02$, $\eta^2 = .26$. Hypothesis 3b received some support.

Hypothesis 4

Hypothesis 4 was concerned with the distinctions between people's views of their own behaviors and their partners' views of the same behaviors. Hypothesis 4a predicted that overall people would attribute their own negative behaviors to less internal, stable, and global, and less controllable, intentional, and responsible causes than would their partners, and Hypothesis 4b predicted that the above relationship would be enhanced as relational satisfaction decreased.

Using Bonferroni's correction ($p < .02$), significant differences were found across all attributional dimensions for the sample as a whole. Participants viewed their own negative behaviors as significantly less internal ($M = 1.85$) and global ($M = 2.25$), and as less controllable ($M = 2.75$), intentional ($M = 2.95$), and responsible ($M = 2.95$) than their partners did (M [locus] = 3.10,

Table 3
Full Sample t Tests (df = 19) of Self-Partner Attributions for Own Negative Behaviors

Dimension	Partner		Self				
	M	SD	M	SD	t	p	η^2
Causal attributions							
Locus	3.10	2.00	1.85	1.23	2.88	.01	.13
Stability	4.10	1.97	2.65	1.69	2.55	.02	.12
Globality	3.90	2.10	2.25	1.45	2.88	.01	.13
Responsibility attributions							
Controllability	4.65	1.31	2.75	1.07	7.02	.001	.27
Intentionality	4.95	1.32	2.95	1.19	5.30	.001	.22
Responsibility	5.10	1.16	2.95	1.23	6.43	.001	.25

[globality] = 3.90, [controllability] = 4.65, [intentionality] = 4.95, [responsibility] = 5.10). There was also a trend ($p < .03$) for stability, with participants viewing their own negative behavior as more stable ($M = 2.65$) than their partners viewed the participant's behavior ($M = 4.10$). For the test statistics, see Table 3.

Separate analyses by sex showed that females viewed their own behaviors as less controllable ($M = 2.50$), intentional ($M = 2.25$), and personally responsible ($M = 2.75$) than did their partners (M [controllability] = 4.50, [intentionality] = 4.62, [responsibility] = 4.87). Males viewed their own behaviors as less internal ($M = 1.58$) and global ($M = 2.17$), and as less controllable ($M = 2.92$), intentional ($M = 3.42$), and responsible ($M = 3.08$), than their partners viewed them (M [locus] = 3.25, [globality] = 4.17, [controllability] = 4.75, [intentionality] = 5.17, [responsibility] = 5.25). There was also a trend ($p < .05$) for stability (M [self] = 2.58, M [partner] = 4.33). Hypothesis 4a was largely supported. For t-test results, see Table 4.

Hypothesis 4b predicted that the above relationships would be augmented by satisfaction level. To do the analysis, scores were created by taking the absolute value of the difference between participants' scores for their own negative behavior and the confederate's scores of the same behaviors. Twenty pairs had rankings for both participant's own and confederate's partner's negative cues.

The multiple regression with scores on the QMI as the criterion variable and the three *causal* scores as predictor variables did not reach significance, $F(3, 16) = .50, p < .68$, for the sample as a whole, nor was there a significant relationship for female confederates discussing their male partners/males talking about themselves ($n = 12$), $F(3, 8) = 1.66, p < .25$. There was a trend for the male confederates making attributions for females/females talking about self, however, $F(3, 4) = 4.12, p < .10$, adj. $R^2 = .57$. This was due to a

Table 4
Sex-Specific t Tests of Self-Partner Attributions for Negative Behaviors

| Dimension | Partner | | Self | | | | |
	M	SD	M	SD	t	p	η^2
Females (*df* = 7)							
Locus	2.87	1.28	2.25	1.75	1.05	.329	.13
Stability	3.75	1.67	2.75	1.83	1.32	.227	.16
Globality	3.50	1.85	2.37	.177	1.20	.268	.15
Controllability	4.50	1.31	2.50	.76	4.32	.003	.35
Intentionality	4.62	1.41	2.25	.71	3.99	.005	.33
Responsibility	4.87	1.13	2.75	.89	4.12	.004	.34
Males (*df* = 11)							
Locus	3.25	2.22	1.58	.67	2.80	.017	.20
Stability	4.33	2.19	2.58	1.68	2.14	.056	.16
Globality	4.17	2.29	2.17	1.27	2.71	.020	.20
Controllability	4.75	1.36	2.92	1.24	5.32	.001	.33
Intentionality	5.17	1.27	3.42	1.24	3.54	.005	.24
Responsibility	5.25	1.21	3.08	1.44	4.73	.001	.30

significant negative relationship between QMI and differences in stability attributions, b = −3.04, $t(10)$ = −3.45, p < .03, η^2 = .26, but a positive relationship with globality, b = 2.59, $t(10)$ = 3.09, p < .04, η^2 = .24. As relational satisfaction increased, males were less likely to make attributions of stability for their partners than their partners did, but more likely to make attributions of globality.

The multiple regression with scores on the QMI as the criterion variable and the three *responsibility* scores as predictor variables found a significant sample-wide relationship, $F(3, 16)$ = 4.82, p < .01, adj. R^2 = .38, and this was due primarily to differences in judgments of personal responsibility, b = −5.54, $t(19)$ = −3.44, p < .003, η^2 = .15. There were no significant relationships in the sample where females made judgments of males, $F(3, 8)$ = 2.07, p < .18, but there was a significant relationship between QMI and responsibility attributions when males made judgments of females, $F(3, 4)$ = 7.52, p < .04, adj. R^2 = .74. This was due primarily to a positive relationship with intentionality, b = 4.63, $t(7)$ = 3.09, p < = .04, η^2 = .31, and a negative trend with personal responsibility, b = −6.09, t = −2.21, p < .09, η^2 = .24. Hypothesis 4b received mixed support.

Discussion

We undertook this investigation to find confirmation for the tenets of attribution theories applied previously to intimates' behaviors and to extend

those theories by looking at other levels of attribution making. In part, we succeeded in both these endeavors. As in previous research, all couples were more likely to notice negative than positive behaviors, and there was a tendency for relational satisfaction to be positively related to the likelihood of reporting that they noticed positive behaviors. The latter was particularly notable for males. For females, there was also a trend toward an inverse relationship between satisfaction and noticing negative behavior. Interestingly, in past research noticing negative rather than positive behavior is usually the greater discriminator between satisfaction levels. The present result provides further support for the contention that positive behaviors are also important to investigate in couples' interactions (Manusov, 1995b).

However, the prediction that there would be an actor-observer bias, with people making more "blameworthy" attributions for their partners' behaviors than they do for their own, received little support. This was likely due to the strong relationship between this discrepancy and relational satisfaction; across most attributional dimensions, the difference between partners' attributions for their own behavior increased as relational satisfaction decreased. This result reflects a spouse-enhancing pattern by those more satisfied in their relationships, whereby satisfied spouses see similar causes for their own and their partners' cues. Dissatisfied couples were more likely to exaggerate differences in the causes that underlie their communication. This finding is consistent with the limited work done previously in other areas of marital/intimates' interaction (e.g., Fincham et al., 1987).

People viewed their own behaviors in different ways than their partners viewed those behaviors, however. Particularly for males, there was a strong tendency to view one's own negative behaviors as more external, specific, uncontrollable, and unintentional, and due less to personal responsibility than their partners viewed the behaviors. The difference for females was for the responsibility, but not causal, attributions. Because of the strong results overall, the pattern was only somewhat augmented by relational satisfaction. Thus, the relationship-enhancing pattern in these data applied only to comparisons between one's own and one's partner's behaviors and did not transfer to differences in attributions made by oneself and one's partner for the same set of one's own nonverbal cues.

These latter two findings extend typical applications of attribution theories during interactions of intimate dyads. Although the present study did not find support for the tendency to make distress-maintaining attributions for others' behaviors, dissatisfied couples may allow negative behaviors to take on greater importance in other ways: when they are viewed against the attributions made for their own behavior. In the present study, there was a much larger discrepancy for dissatisfied couples in how people viewed their

own negative actions (typically as caused by factors not related to them) and how they viewed their partners' nonverbal cues. This discrepancy-enhancing tendency occurred across the attributional dimensions studied for this project, making its impact particularly notable.

One dissatisfied participant, for example, noted his partner's "aggressive" vocal tone. His attribution for the tone was that she wanted to put him "on the spot." This attribution reflected a more intentional, internal cause. The attribution for his own "reserved" demeanor was because "the camera was on." The latter attribution reflects a more external, and less responsible, reason. Conversely, several satisfied couples blamed their partners and their own negative cues on the presence of the camera.

On the other hand, the general trend for people to view their own actions differently from how their partners view those actions—particularly in terms of responsibility—was not associated with satisfaction. Rather, all couples were more likely to view their own negative actions more benignly than their partner did, and this was especially true for males' views of their own nonverbal cues. One female participant, for example, noted that she used more pauses and was more passive than normal. She said that her own behavior was due to her partner's "heightened aggressiveness." Her partner, however, said that she acted that way because she was "feeling unsure." Although neither is very intentional or stable, the latter is based much more on internal cues than is the former and exemplifies the differences in responses. This tendency was augmented only marginally by satisfaction, with the personal responsibility attributions of dissatisfied couple members likely to differ more than those made by satisfied couples.

The finding in these data most anomalous in terms of previous research is that satisfaction was not tied significantly to either relationship-enhancing or distress-maintaining attributions. Although one previous investigation using a diary method (Manusov, 1995a) also failed to find many significant relationships for nonverbal behaviors, others (e.g., Bradbury & Fincham, 1992; Manusov, 1990) have found support.

This inconsistency may reflect complexities in the nature of nonverbal cues. As noted, nonverbal behavior can be viewed as controlled and intentional, but it is also often viewed as an unintended reflection of "real" (i.e., state- or trait-based) sources. It may be that given an obvious external cause (e.g., a camera), the variety of meanings that may be given to a cue outside of the laboratory is reduced. Thus, although attributions in line with results found with other behaviors have been found using a taped, laboratory context (e.g., Manusov, 1990), future research would do well to reduce the possibility that one cause will be given disproportionately.

As well, the fact that this investigation studied couples with a range of relatively moderate satisfaction scores, that most of these couples were not married, and that there were a variety of cultures represented may have made the types of attributions somewhat more subtle or increased other sources of variability. To discern the applicability of attribution making with nonverbal cues more accurately, a sample that mirrors previous investigations (i.e., married couples either very satisfied or very dissatisfied) should be employed. Doing so, however, has its own set of implications (i.e., less generalizability).

There are other limitations to these data that warrant investigation. First, methodologies for capturing attributions are always open to criticism. In this study, we did not specify when to make attributions, and we tried to find relatively subtle ways of accessing them when the behaviors were noticed. These help to alleviate concerns that we instigated more attribution making than might occur naturally. The fact that we accessed the attributions after the conversation did remove the interpretations from the interaction, however, and meant that the participants had to rely on some re-creation of their thoughts. In addition, although we tried to ensure (based on the behavioral descriptions and timing provided by the participants) that they were making attributions for the same behaviors, this cannot be assured. Future research would do well to have the participants point to the particular behaviors (i.e., on videotapes) for which they made their attributions to ensure that the same behaviors led to the different attributions (e.g., Manusov, 1990).

Two other choices affected the "realness" of these data. First, although we can make relatively reliable claims about behaviors people reported to have noticed spontaneously, based on how we asked for the meanings and causes, we cannot be as certain that the attributions given for them also occurred during the interaction. Using an approach based on a cue-recall procedure (e.g., Waldron, 1990; Waldron & Applegate, 1994) may be a useful way to avoid this in future research. Second, having one person in the role of confederate placed that person in an inherently different "attributional perspective" than the naive participant. The fact that one of the hypotheses predicting an actor-observer difference was not supported, however, and that satisfaction, not perspective, appeared to be the primary arbiter of how attributions were made, suggests that the confederate/participant distinction had only limited influence. Further, few of the attributions provided by the confederates seemed to reflect attributions that could only be made by people who were "in" on a study. Nonetheless, we believe that studies using more naturalistic methods are needed to help confirm the present results.

Despite these limitations, this study adds to the growing body of research focusing on how couples make meaning in their interactions. It confirmed

many of the predictions of past research intimating that couples' interpreta-
tions are colored by the schema they hold for their partners. It provided
further support that people make attributions for nonverbal cues. As well,
we hoped to show that the satisfaction people have with their partner and
their relationship often modify the meanings that they give to a range of
nonverbal behaviors for both themselves and their partners. Each of these
variables affects the meanings that people give to interaction behavior,
making mutual attributions in intimate relationships a particularly impor-
tant area of study.

Notes

1. A version of this article was presented to the Interpersonal and Small Group
Division of the Speech Communication Association, San Diego, November 1996.
2. In most cases, if more than one behavior was brought up that was valenced as
either positive or negative, only one attribution was provided. Thus, when we refer to
the proportion of behaviors leading to attributions, we mean more specifically, the *type*
and not the actual number per interaction that instigated attribution making.

References

Andersen, P. A. (1985). Nonverbal immediacy in interpersonal communica-
    tion. In A. W. Siegman & S. Feldstein (Eds.), *Multichannel integrations of
    nonverbal behavior* (pp. 1-36). Hillsdale, NJ: Lawrence Erlbaum.
Baldwin, M. W. (1992). Relational schemas and the processing of social
    information. *Psychological Bulletin, 112*, 461-484.
Baucom, D. H. (1987). Attributions in distressed relations: How can we
    explain them? In S. Duck & D. Perlman (Eds.), *Intimate relationships:
    Development, dynamics, and deterioration* (pp. 177-206). Newbury Park,
    CA: Sage.
Berscheid, E. (1994). Interpersonal relationships. *Annual Review of Psychol-
    ogy, 45*, 79-129.
Bradbury, T. N., Beach, S.R.H., Fincham, F. D., & Nelson, G. M. (1996).
    Attributions and behavior in functional and dysfunctional marriages.
    Journal of Consulting and Clinical Psychology, 64, 569-577.
Bradbury, T. N., & Fincham, F. D. (1990). Attributions in marriage: Review
    and critique. *Psychological Bulletin, 107*, 3-33.
Bradbury, T. N., & Fincham, F. D. (1992). Attributions for behavior in marital
    interaction. *Journal of Personality and Social Psychology, 63*, 613-628.
Bradley, G. W. (1978). Self-serving biases in the attribution process: A
    reexamination of the fact or fiction question. *Journal of Personality and
    Social Psychology, 34*, 56-71.

Burgoon, J. K. (1994). Nonverbal signals. In M. L. Knapp & G. R. Miller (Eds.), *Handbook of interpersonal communication* (pp. 229-285). Newbury Park, CA: Sage.

Burgoon, J. K., Coker, D. A., & Coker, R. A. (1986). Communication effects of gaze behavior. *Human Communication Research, 12,* 495-524.

Burgoon, J. K., & Hale, J. L. (1988). Nonverbal expectancy violations: Model elaboration and application to immediacy behaviors. *Communication Monographs, 55,* 58-79.

Burgoon, J. K., & Newton, D. A. (1991). Applying a social meaning model to relational message interpretations of conversational involvement: Comparing observer and participant perspectives. *The Southern Communication Journal, 56,* 96-113.

Burman, B., Margolin, G., & John, R. S. (1993). America's angriest home videos: Behavioral contingencies observed in home reenactments of marital conflict. *Journal of Consulting and Clinical Psychology, 61,* 28-39.

Camper, P. M., Jacobson, N. S., Holtzworth-Munroe, A., & Schmaling, K. B. (1988). Causal attributions for interactional behaviors in married couples. *Cognitive Therapy and Research, 12,* 195-209.

Cantos, A. L., Neidig, P. H., & O'Leary, K. D. (1993). Men and women's attributions of blame for domestic violence. *Journal of Family Violence, 8,* 289-302.

Cappella, J. N., & Greene, J. O. (1982). A discrepancy-arousal explanation of mutual influence in expressive behavior for adult-adult and infant-adult dyadic interaction. *Communication Monographs, 49,* 89-114.

Christensen, A., Sullaway, M., & King, C. E. (1983). Systematic error in behavioral reports of dyadic interaction: Egocentric bias and content effects. *Behavioral Assessment, 5,* 129-140.

Fincham, F. D., & Beach, S.R.H. (1988). Attribution processes in distressed and nondistressed couples: 5. Real versus hypothetical events. *Cognitive Therapy and Research, 12,* 505-514.

Fincham, F. D., Beach, S., & Baucom, D. H. (1987). Attribution processing in distressed and nondistressed couples: 4. Self-partner attribution differences. *Journal of Personality and Social Psychology, 52,* 739-748.

Fincham, F. D., Beach, S.R.H., & Nelson, G. (1987). Attribution processes in distressed and nondistressed couples: 3. Causal and responsibility attributions for spouse behavior. *Cognitive Therapy and Research, 11,* 71-86.

Fincham, F. D., & Bradbury, T. N. (1992). Assessing attributions in marriage: The relationship attribution measure. *Journal of Personality and Social Psychology, 62,* 457-468.

Fincham, F. D., & Bradbury, T. N. (1993). Marital satisfaction, depression, and attributions: A longitudinal analysis. *Journal of Personality and Social Psychology, 64,* 442-452.

Fincham, F. D., & Osborne, L. N. (1995). Understanding marriage and marital distress: Do milliseconds matter? *Journal of Family Psychology, 9,* 24-28.

Forsyth, D. R. (1980). The functions of attributions. *Social Psychology Quarterly, 43,* 184-189.

Gottman, J. (1979). *Marital interaction: Experimental investigations*. New York: Academic Press.

Gottman, J. M., & Krokoff, L. J. (1989). Marital interaction and satisfaction: A longitudinal view. *Journal of Consulting and Clinical Psychology, 57,* 47-52.

Gottman, J., Markman, H., & Notarius, C. (1977). The topography of marital conflict: A sequential analysis of verbal and nonverbal behavior. *Journal of Marriage and the Family, 39,* 461-478.

Guthrie, D. M., & Noller, P. (1988). Spouses' perceptions of one another in emotional situations. In P. Noller & M. A. Fitzpatrick (Eds.), *Perspectives on marital interaction* (pp. 53-77). Clevedon & Philadelphia: Multilingual Matters.

Harvey, J. H., & Weary, G. (1981). *Perspectives on attributional processes*. Dubuque, IA: William C. Brown.

Heider, F. (1958). *The psychology of interpersonal relations*. New York: Wiley.

Hewes, D. E., & Planalp, S. (1982). There is nothing as useful as a good theory . . . The influence of social knowledge on interpersonal communication. In M. E. Roloff & C. R. Berger (Eds.), *Social cognition and communication* (pp. 107-150). Beverly Hills, CA: Sage.

Holtzworth-Munroe, A., & Jacobson, N. S. (1985). Causal attributions of married couples: When do they search for causes? What do they conclude when they do? *Journal of Personality and Social Psychology, 48,* 1398-1412.

Holtzworth-Munroe, A., Jacobson, N. S., Fehrenbach, P. A., & Frussetti, A. (1992). Violent married couples' attributions for violent and nonviolent self and partner behavior. *Behavioral Assessment, 14,* 53-64.

Horneffer, K. K., & Fincham, F. D. (1996). Attributional models of depression and marital distress. *Personality and Social Psychology Bulletin, 22,* 678-690.

Jacobson, N. S. (1984). The modification of cognitive processes in behavioral marital therapy: Integrating cognitive and behavioral intervention strategies. In K. Hahlweg & N. S. Jacobson (Eds.), *Marital interaction: Analysis and modification* (pp. 285-308). New York: Guilford.

Jacobson, N. S., Follette, W. C., & McDonald, D. W. (1982). Reactivity to positive and negative behavior in distressed and nondistressed married couples. *Journal of Consulting and Clinical Psychology, 50,* 706-714.

Jacobson, N. S., & Margolin, G. (1979). *Marital therapy: Strategies based on social learning and behavior exchange principles*. New York: Brunner/Mazel.

Jacobson, N. S., Waldron, H., & Moore, D. (1980). Toward a behavioral model of marital distress. *Journal of Consulting and Clinical Psychology, 48,* 696-703.

Jones, E. E., & McGillis, D. (1976). Correspondent inferences and the attribution cube: A comparative reappraisal. In J. H. Harvey, W. J. Ickes, & R. F. Kidd (Eds.), *New directions in attribution research* (Vol. 1, pp. 389-420). Hillsdale, NJ: Lawrence Erlbaum.

Jones, E. E., & Nisbett, R. E. (1972). The actor and the observer: Divergent perceptions of the causes of behavior. In E. E. Jones, D. E. Kanouse, H. H.

Kelley, R. E. Nisbett, S. Valins, & B. Weiner (Eds.), *Attributions: Perceiving the causes of behavior* (pp. 79-94). Morristown, NJ: General Learning Press.

Karney, B. R., Bradbury, T. N., Fincham, F. D., & Sullivan, K. T. (1994). The role of negative affectivity in the association between attributions and marital satisfaction. *Journal of Personality and Social Psychology, 66,* 413-424.

Kelley, H. H. (1972). Attribution and social interaction. In E. E. Jones, D. E. Kanouse, H.H. Kelly, R. E. Nisbett, S. Valins, & B. Weiner (Eds.), *Attributions: Perceiving the causes of behavior* (pp. 1-26). Morristown, NJ: General Learning Press.

Langer, E. J. (1978). Rethinking the role of thought in social interactions. In J. H. Harvey & W. J. Ickes (Eds.), *New directions in attribution research* (Vol. 2, pp. 35-58). Hillsdale, NJ: Lawrence Erlbaum.

Locke, H. J., & Wallace, K. (1959). Short marital adjustment and prediction tests: Their reliability and validity. *Marriage and Family Living, 21,* 251-255.

Manusov, V. (1990). An application of attribution principles to nonverbal behavior in romantic dyads. *Communication Monographs, 57,* 104-118.

Manusov, V. (1992). Mimicry or synchrony: The effects of intentionality attributions for nonverbal mirroring behavior. *Communication Quarterly, 40,* 69-83.

Manusov, V. (1995a). Intentionality attributions for naturally-occurring non-verbal behaviors in intimate relationships. In J. Aitken & L. J. Shedletsky (Eds.), *Reader in intrapersonal communication* (pp. 339-350). Plymouth, MI: Midnight Oil & Speech Communication Association.

Manusov, V. (1995b). Reacting to changes in nonverbal behavior: Relational satisfaction and adaptation patterns in romantic dyads. *Human Communication Research, 21,* 456-477.

Manusov, V., & Rodriguez, J. S. (1989). Intentionality behind nonverbal messages: A perceiver's perspective. *Journal of Nonverbal Behavior, 13,* 15-24.

Miller, G. E., & Bradbury, T. N. (1995). Refining the association between attributions and behavior in marital interaction. *Journal of Family Psychology, 9,* 196-209.

Noller, P. (1992). Nonverbal communication in marriage. In R. S. Feldman (Ed.), *Applications of nonverbal behavioral theories and research* (pp. 31-62). Hillsdale, NJ: Lawrence Erlbaum.

Noller, P., & Ruzzene, M. (1991). Communication in marriage: The influence of affect and cognition. In G. Fletcher & F. D. Fincham (Eds.), *Cognition in close relationships* (pp. 203-233). Hillsdale, NJ: Lawrence Erlbaum.

Norton, R. (1983). Measuring marital quality: A critical look at the dependent variable. *Journal of Marriage and the Family, 45,* 141-152.

Patterson, M. L. (1982). A sequential functional model of nonverbal exchange. *Psychological Review, 89,* 231-249.

Patterson, M. L. (1995). A parallel process model of nonverbal communication. *Journal of Nonverbal Behavior, 19,* 3-29.

Pike, G. R., & Sillars, A. L. (1985). Reciprocity of marital communication. *Journal of Social and Personal Relationships, 2*, 303-324.

Pszyszynski, T. A., & Greenberg, J. (1981). Role of disconfirmed expectancies in the instigation of attributional processing. *Journal of Personality and Social Psychology, 40*, 31-38.

Scott, C. K., Fuhrman, R. W., & Wyer, R. S. (1991). Information processing in close relationships. In G.J.O. Fletcher & F. D. Fincham (Eds.), *Cognition and close relationships* (pp. 37-68). Hillsdale, NJ: Lawrence Erlbaum.

Spanier, G. (1976). Measuring dyadic adjustment: New scales for measuring the quality of marriage and similar dyads. *Journal of Marriage and the Family, 38*, 15-27.

Thompson, S. C., & Kelley, H. H. (1981). Judgments of responsibility for activities in close relationships. *Journal of Personality and Social Psychology, 41*, 469-477.

Waldron, V. R. (1990). Constrained rationality: Situational influences on information acquisition plans and tactics. *Communication Monographs, 57*, 184-201.

Waldron, V. R., & Applegate, J. L. (1994). Interpersonal construct differentiation and conversational planning: An examination of two cognitive accounts for the production of competent verbal disagreement tactics. *Human Communication Research, 21*, 3-35.

Weiner, B. (1985). "Spontaneous" causal thinking. *Psychological Bulletin, 97*, 74-84.

Weiner, B. (1986). *An attributional theory of motivation and emotion.* New York: Springer-Verlag.

Weiss, R. L., & Heyman, R. E. (1990). Observation of marital interaction. In F. D. Fincham & T. N. Bradbury (Eds.), *The psychology of marriage: Basic issues and applications* (pp. 87-117). New York: Guilford.

Wong, P.T.P., & Weiner, B. (1981). When people ask "why" questions, and the heuristics of the attributional search. *Journal of Personality and Social Psychology, 40*, 650-663.