

# Communicative Competence in the Nonverbal Behavior of Married Couples\*

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*The present study investigated the hypothesis that spouses' marital satisfaction is related to their ability to understand each other's nonverbal communication. Twenty-one couples rated their marital satisfaction and then participated in a task designed to measure nonverbal communicative competence independent of verbal competence. Twenty-one additional husbands and wives then viewed videotapes of opposite-sexed partners in the first group and attempted to read the same nonverbal cues. This design permitted identification of the presumed satisfaction/nonverbal competence relationship as being primarily a function of message sending, message receiving, or both. Results indicated a positive relationship between marital satisfaction and nonverbal competence, but only for husbands reading their wives' nonverbal cues. Comparison with the ratings of observing married strangers suggested that the relationship is a function of the husbands' characteristics as receivers of their wives' cues. In comparison to the male strangers, the husbands of satisfied wives were more able to read their wives' nonverbal cues, while the husbands of dissatisfied wives were less able to read them. The overall reception rate of the male strangers was unrelated to the satisfaction of the wives sending the messages. Some hypotheses drawn from the marital interaction literature are related to the data.*

This paper explores the relationship between interpersonal communication and marital satisfaction. Two hypotheses have been advanced that address this relationship. The first hypothesis states that a skill deficit exists in the communication of dissatisfied married couples. The second hypothesis states that a "private message system" exists that enhances the communication of satisfied couples.

The communication skills deficit hypothesis is by no means new. In fact, it forms the

basis of much of the current writing and theorizing about marriage and marital interaction. However, the hypothesis is difficult to test and has not been adequately tested to date. For example, the hypothesis cannot be effectively tested by naturalistically observing marital interaction. To take one instance, although observational studies have employed observers to code "communication clarity" (for a review see Jacob, 1975) or "message ambiguity" (see Riskin and Faunce, 1972), considerable inference is required on the part of the observers in making this judgment from the stream of interaction. Furthermore, if an exchange appears unclear to a trained observer, it cannot be determined if the problem is a sender or a receiver deficit.

A particular form of the communication skill deficit hypothesis will be addressed in the present investigation, namely the form of

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the hypothesis that focuses on nonverbal behavior. Recent evidence suggests that, among married couples, nonverbal components of messages are particularly worthy of study. Gottman *et al.* (1977) and Gottman (1979) found that nonverbal codes were more effective than verbal codes as discriminators between distressed and nondistressed couples. Similarly, Vincent *et al.* (1979) found that when couples were asked to act happy, nonverbal behaviors provided the only basis for distinguishing between distressed and nondistressed couples. Thus, nonverbal behavior may be less easily "faked" than verbal behavior, but this conclusion is not yet secure (Cohen and Christensen, 1980).

To test the communication deficit hypothesis for nonverbal components of a message, a procedure must be employed that both specifies the sender's intent and controls the verbal components. Fortunately, an ingenious experimental task has been designed by Kahn (1970). Kahn uses a set of fixed verbal statements, which, when sent with different nonverbal components, communicate different meanings. Each item of Kahn's Marital Communication Scale (MCS) describes a hypothetical situation (*e.g.*, you and your wife are sitting alone in your living room on a winter evening), contains a verbal message (*e.g.*, "I'm cold, aren't you?"), and three alternative meanings (*e.g.*, she wonders if you are cold, or if it is only her; she wants you to warm her with physical affection; or she would like you to turn up the heat). Both the sender and the receiver are aware of the possible meanings. The sender must send a specific alternative message (chosen by the experimenter) by varying the nonverbal, but not the verbal, component of the message, and the receiver must determine which message the sender intended. The number of correct items is the MCS score.

Using extreme scores on a marital satisfaction measure, Kahn (1970) selected 21 distressed and 21 nondistressed couples from a large pool. He found that dissatisfied couples scored lower on the MCS than satisfied couples, although the results just barely reached significance with a one-tailed *t* test. In a complex doctoral dissertation that was, in part, a replication of Kahn's (1970) study, Bayard (1975) found a correlation between the MCS and marital satisfaction which just barely failed to reach significance ( $r = .22$ ,  $p < .06$ , one-tailed test).

One potential explanation for these marginal results involves the construction of the MCS items. For the purpose of the present study, each item of the MCS was examined and it was discovered that in some cases the wording of the fixed-content statement seemed biased toward one of the three alternative meanings. For example, the statement, "Didn't we have chicken for dinner a few nights ago?" is more easily sent with irritation, rather than as either delight or as an informational check on a poor memory. Thus, some of the MCS items might not discriminate effectively because most couples would be more likely to choose a particular alternative for an item on the basis of its verbal content. Consequently, the range of total MCS scores would then be restricted. In such cases, the fixed statement was rewritten for the present study. Some items were discarded entirely, and substitutes were drawn from Kahn's group of practice items. These substitute items were also modified. This process of rational revision was tested with a pilot group of couples, and the resulting instrument was dubbed the MCS II.

Unfortunately, even if a correlation is obtained between MCS II scores and marital satisfaction, it is not clear if the communication deficit is in the sender, the receiver, or both. An objective of the present investigation was to locate the communication deficit, if one existed. Toward this end, an additional group of married couples were used as receivers of each message. Hence, each message was received both by a sender's spouse and an opposite-sexed, married stranger.

The use of the stranger group permits a specific test of sender versus receiver deficits. Assume that evidence for the communication deficit hypothesis is found in the present investigation, *i.e.*, that marital satisfaction and spouse MCS II scores correlate positively. If a significant correlation is obtained between the sender's marital satisfaction and the spouse's MCS II score, but not the stranger's MCS II score, this means that a stranger can receive equally well regardless of the sender's marital satisfaction, while a spouse cannot. This would suggest a spouse-receiver deficit. On the other hand, if *both* the stranger's and the spouse's MCS II scores were to correlate significantly with the sender's marital satisfaction, this would suggest a sender deficit; *i.e.*, no matter who the receiver was, the lower the sender's marital

satisfaction, the lower the receiver's MCS II score.

A test of the hypothesis that both sender and receiver deficits exist is also possible. In this case all receivers would do poorly when the sender is dissatisfied, but the spouse would do even worse than the stranger. This would be the case if: (1) the correlation between the spouse's MCS II score and the sender's marital satisfaction were positive and significant; (2) the correlation between the stranger's MCS II score and the sender's marital satisfaction were positive and significant; and (3) the correlation for the spouse was significantly higher than that for the stranger as receiver.

An hypothesis related to the communication skill deficit hypothesis was recently advanced by Gottman (1979), namely, that satisfied couples have a private message system that permits efficient, telegraphic nonverbal communication based on a history of agreed-upon meanings for specific nonverbal signals. In the present investigation, this hypothesis would predict that, for satisfied couples, spouses should do better on the MCS II than strangers, but that this would not be the case for dissatisfied couples. The private message system hypothesis does not predict whether spouses would do as well or worse than strangers for dissatisfied couples. In fact, if spouses did *worse* than strangers in dissatisfied couples, this would support the communication skill deficit hypothesis.

## METHOD

### *Subjects*

Subjects for the present study consisted of 42 married couples recruited from the campus and surrounding community by means of newspaper advertisements. The advertisements asked for married couples who were either happily or unhappily married to participate in a study of marital communication for which they would receive a \$15 fee. Interested couples telephoned the experimenter, who briefly outlined the experimental task and scheduled laboratory appointments. For ease in experimental procedure, subjects were divided into two groups according to the order of their scheduled laboratory appointment. The first 21 couples constituted the spouse group, and the next 21 couples constituted the stranger group.

### *Instruments*

Marital satisfaction was assessed by means of the Locke-Williamson Marital Relationship Inventory (MRI; Burgess *et al.*, 1971). Nonverbal communication was assessed by a modified version of Kahn's (1970) Marital Communication Scale (MCS II). Recall that the MCS II required couples to communicate to each other *via* a standardized set of verbal messages in which the meaning of the message is dependent upon the manner in which it is delivered nonverbally. The MCS II used in the present study consisted of 16 items. Each item was composed of: (1) a brief written description of a hypothetical situation in which the couple were to imagine themselves; (2) three possible messages that could be communicated, given that situation; and (3) a standardized statement which, depending upon the style of delivery, could convey any one of the alternative messages. For eight items the husband was the sender and the wife was the receiver and for eight items these roles were reversed (counter-balanced for order). For each item, the particular message to be conveyed by the sender was preselected by the experimenter for all subjects and the sender had to express the fixed statement in such a way as to communicate the designated messages to the receiver. The listener's task was to decide which of the three alternative messages the sender was attempting to convey.

Following communication of *each item* of the MCS II, senders and receivers responded to a question aimed at assessing their perception of how competently they had sent and received the message, respectively. Senders were asked to indicate how clearly they thought they communicated the designated message to their spouses. They responded to this question on a 6-point Likert scale, anchored at 1 with "My communication was very unclear" and at 6 with "My communication was very clear." The receivers were asked only to indicate the confidence they had in their choice of the correct message. This response was also made on a 6-point scale anchored at 1 with "No confidence my choice is correct" and at 6 with "Complete confidence my choice is correct." This self-rating was designed as part of a larger investigation exploring a technical point, namely, the relationship between communicative competence

and the couple's perception of their communicative competence. The results of this technical point will not be presented in this paper.

The MCS II was scored by counting the number of times the receiver's choice matched the sender's intended message. Two accuracy scores were derived from the MCS II: (1) the husband's accuracy as a receiver, and (2) the wife's accuracy as a receiver.

#### *Laboratory Design*

The laboratory consisted of a main room with a carpeted floor and one wall draped. This gave the room a warm, comfortable atmosphere and attenuated echoes during voice recording. In the center of the room was a contemporary wooden table and chair where the speaker sat. Adjoining the main room was a smaller room containing the videotape recording equipment and a video monitor. A camera was also mounted in this room and aimed into the main room through a standard glass window. When seated at the wooden table, the sender's torso, arms, and face were displayed full-front on the video monitor. Unobtrusive microphones in the main room recorded the sender's voice.

#### *Procedure*

*Spouse group.* Upon arriving for their scheduled appointment, the experimenter greeted the couple and led them to the laboratory where they were familiarized with their surroundings and seated at the wooden table to fill out a demographic information sheet and the MRI. Then, the experimenter explained the MCS II task with the help of a page containing a sample MCS-type item and the associated postresponse questions. When the experimenter felt the couple understood the task completely, the sample item was used for practice. The first sender (the husband in 11 of the 21 couples) was asked to deliver all three of the alternative messages for the sample item, but to do so in an order determined by the experimenter. The receiver tried to determine the order in which the alternatives were being presented. After the practice run the experimenter answered any questions about the task. The receiving partner then moved to the adjoining room to see and hear the partner's performance on the video monitor. This procedure ensured that spouse group subjects had no advantage over stranger group subjects in terms of "live"

versus taped presentation of the MCS II items. Finally, the appropriate MCS II forms were given to the sender and receiver, the videotape was started, and communication of the experimental items began. The messages to be communicated were indicated on the sender's form, and the order of the items was randomized across subjects. The pacing of the items was determined by the couple.

When the first eight items were completed, the sender and receiver exchanged places. A new sample item was provided and practiced as before. Any questions arising from the switching of roles were answered by the experimenter. The tape was then started again, and the couple communicated on the second set of items. At the end of this run, the MCS II forms were collected and the subjects were debriefed as to the purpose of the study. The couple then received the participation fee and left.

*Stranger group.* Couples in the stranger group were treated very similarly to spouse group couples except that they served as receivers for spouse group senders, rather than for each other. They began by filling out the demographic information form and the MRI. In their introduction to the MCS II, stranger group couples were told they would be trying to identify the messages of other individuals previously involved in the experiment. However, to provide familiarity with the task, they practiced the MCS items in exactly the manner the spouse couples had. The partners of the stranger group couples were then matched one-on-one with the opposite-sexed partner of a spouse group couple; for example, the husband of Stranger Group Couple Number 5 watched the previously recorded video tape of the wife of Spouse Group Couple Number 5, and his wife watched the videotape of the husband of Spouse Group Couple Number 5. The order in which the husband and wife of the stranger group couples assumed receiver roles was complementary to that of the spouse group couple whom they observed.

While the first receiver of a stranger group couple watched the videotape of a spouse group sender, the other member delivered MCS II items to a camera, believing that this performance was being taped for later analysis. In reality, no recording was made. This procedure ensured that the laboratory experience of subjects in the stranger group closely

paralleled that of their spouse group counterparts.

## RESULTS AND DISCUSSION

### *Existence of a Communication Deficit*

The first research question involved the correlation between the sender's marital satisfaction and the spouse's MCS II score. The correlation between the wife's marital satisfaction<sup>1</sup> and her husband's MCS II score was .68,  $p < .001$ ; the correlation between the husband's marital satisfaction and his wife's MCS II score was .06, n.s. The present investigation thus found support for the communication deficit hypothesis for husbands as receivers but not for wives. The lower the wife's marital satisfaction, the worse was her husband's MCS II score (see footnote 1).

These results support a communication deficit hypothesis of marital dissatisfaction. However, the locus of the deficit cannot be explored without reference to the performance of the strangers as receivers. Accordingly, other analyses explored the processes involved in the communication deficit.

### *Location of the Deficit<sup>2</sup>*

The next research question involved determining whether the husbands' MCS II performance was a function of the wives' characteristics as senders or of the husbands' characteristics as receivers. Given the sig-

nificant correlation between the husband's MCS II score and the wife's marital satisfaction, recall that a wife sender deficit would be suggested if married male strangers' MCS II scores also correlated positively and significantly with the wife's marital satisfaction. A *husband receiver deficit* would be suggested if the latter correlation were not significant. *Both* a receiver and a sender deficit would be suggested if both correlations were positive and significant, but if the husband's correlation was significantly greater than the stranger's. In fact, the correlation between wife satisfaction and stranger MCS II scores was .31, n.s. It cannot be concluded from this result that we have "proved the null hypothesis" that there is no relationship between wife satisfaction and stranger MCS II scores. However, the fact that wife satisfaction accounts for 46 percent of the variance in husband's MCS II scores, but less than 10 percent of the variance in stranger MCS II scores, suggests that, in distressed marriages, husbands but not male strangers are poor receivers of wives' nonverbal messages. The implication is that there exists a *receiver deficit* in husbands of dissatisfied marriages, while no evidence can be found for a significant sender deficit in dissatisfied wives.

At this point, a question arises as to whether this "receiver deficit" is specific to the husband's own marital relationship, or whether the dissatisfied male also has difficulty reading the nonverbal communications of female senders other than his wife. In other words, is there a trait-like component in the distressed husband's decoding problems? The present study does not allow a definitive answer to this question because spouse group husbands did not receive messages from senders other than their wives for comparison. However, the stranger group provides inferential data bearing on this point. The mean, range, and variability of marital satisfaction scores in the stranger group were very similar to those of the spouse group. If an "equivalency assumption" is made, it is possible to compute the correlation between male stranger's satisfaction and the MCS II scores they obtained reading unfamiliar women in the spouse group. There is a need for caution since the present investigation does not permit a test of the equivalency assumption. This correlation is  $-.14$ , n.s. Thus, evidence for an "across-sender relationship"

<sup>1</sup>Due to the significant correlation (.72) between husbands' and wives' MRI scores in the spouse group, all reported relationships hold when the receiver's marital satisfaction or the couple's average marital satisfaction is substituted for the sender's marital satisfaction. To conserve space, the present investigation will therefore not present all the relationships for husband, wife, and averaged marital satisfaction.

<sup>2</sup>The two groups were compared on the following demographic variables: husband's education, wife's education, husband's age, wife's age, income, number of children, years married, and the husband's and wife's marital satisfaction. The groups were not significantly different on any demographic variables except for a significant difference on education; husbands in the stranger group averaged 17.71 years while husbands in the other group averaged 15.67 years, two-tailed  $t(20) = 2.35$ ,  $p < .05$ ; wives in the stranger group averaged 16.09 years while wives in the other group averaged 14.67, two-tailed  $t(20) = 2.14$ ,  $p < .05$ . The significance of all the correlations reported in this paper for the stranger group remained unchanged when the stranger's educational level was controlled by partial correlations.

between males' marital satisfactions and their respective capabilities was not found. This suggests that dissatisfied husbands' deficits as receivers are specific to their marital relationships.

To summarize, the communication deficit hypothesis received partial support in the present investigation. The evidence suggests that the dissatisfied wife has trouble nonverbally communicating to her husband, but not to a married stranger. Inferential data suggest that the husband's receptive difficulties are confined to his interactions with his wife. The results of the present investigation thus suggest a relationship between marital satisfaction (of both husbands and wives) and the husband's ability to accurately read his wife's nonverbal messages.

These results are consistent with a recent finding by Gottman (1979). Using videotapes, he analyzed the verbal and nonverbal behaviors of couples engaged in conversations aimed at resolving marital conflict. Employing bivariate times-series analysis, Gottman found asymmetry in the predictability of husband and wife affective behavior among dissatisfied, but not among satisfied, couples. In dissatisfied marriages, the wife's affective behavior could be predicted better from the husband's affective behavior, than conversely; in satisfied marriages the predictability was symmetrical. Gottman interpreted these results to suggest that in dissatisfied marriages, husbands are less affectively responsive to their wives, than their wives are to them. Gottman's (1979) results thus also support the relationship between marital satisfaction and the husband's affective responsiveness to his wife's affect. The present investigation sharpens this hypothesis by pinpointing the husband's ability to accurately receive his wife's nonverbal behavior, controlling for her verbal behavior.

Recall that a related hypothesis discussed by Gottman (1979) is that satisfied couples have a *private message system* that permits efficient telegraphic nonverbal communication. In the present investigation, this hypothesis would predict that for *satisfied* couples, husbands would do better than male strangers as receivers of their wives' messages, whereas this should not be true in dissatisfied couples.

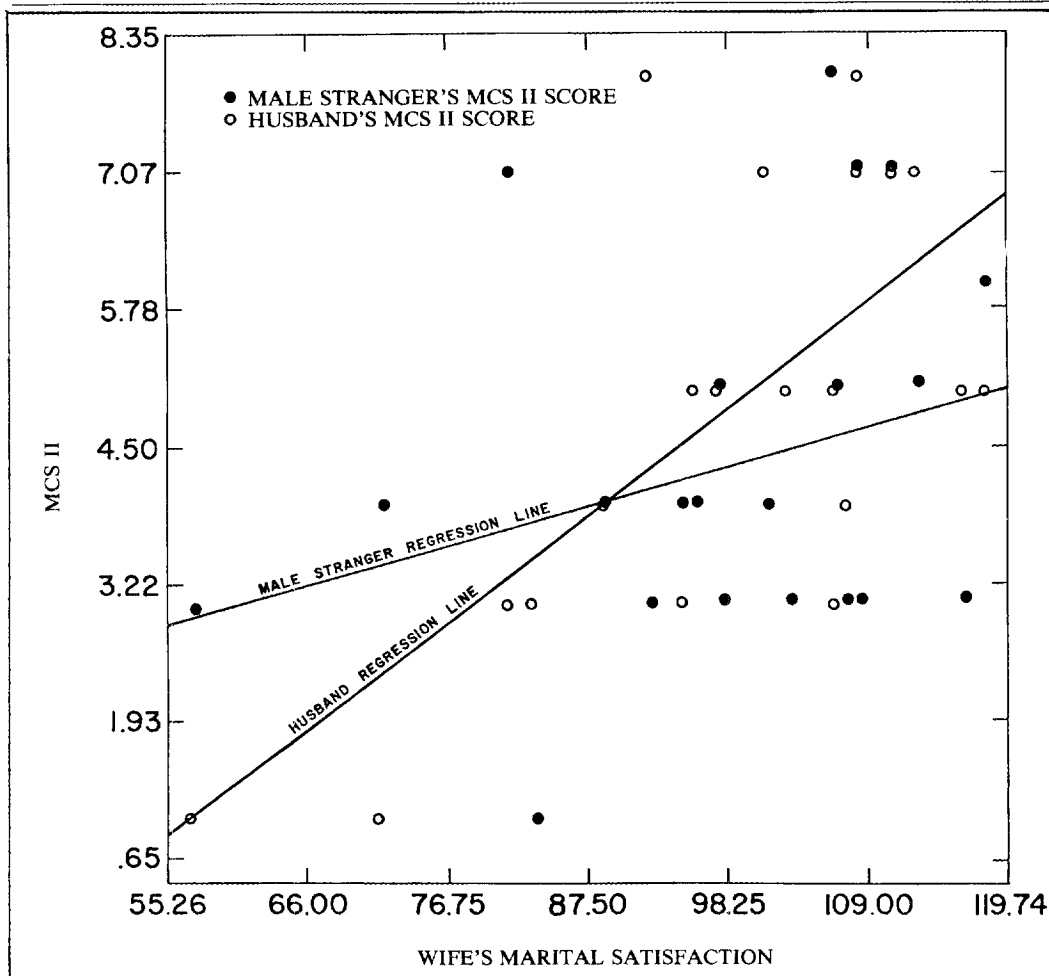
There was no significant difference between the husbands' MCS II and the male stran-

gers' MCS II scores,  $t(20) = 1.24$ ; the husbands' mean was 4.81 and the strangers' mean was 4.38. This fact, together with the pattern of correlation between MCS II scores and the wives' marital satisfaction suggests that strangers may be better receivers than husbands for dissatisfied wives but worse receivers than husbands for satisfied wives. Figure 1, which is a scatterplot of both husbands' and strangers' MCS II scores versus the wives' marital satisfaction, suggests that this was indeed the case. The scatterplot shows that, in general, the strangers' scores (black dots) are above the husbands' scores (white dots) for dissatisfied wives and that the pattern is reversed for satisfied wives. The evidence would be visually more compelling if there were more cases in the lower satisfaction range. However, the slopes of the two regression lines (black dots versus marital satisfaction, and white dots versus marital satisfaction) are significantly different, suggesting that a crossover effect occurs in these data. The slope of the regression line for the husband's MCS II score was .091,  $t(19) = 4.00$ ,  $p < .01$  and the slope of the regression line for the male stranger's MCS II score was .035,  $t(19) = 1.39$ , n.s. The intercept for the husband's regression line was  $-4.06$ , while for the stranger it was .91; the two lines intersect at a wife MRI of 87.5; below 87.5 the stranger's line is above the husband's, and above 87.5 it is below. The results support both a private message system hypothesis for satisfied couples and a response deficit hypothesis for dissatisfied couples. This pattern also holds when the husband's or the average couple's marital satisfaction is used in place of the wife's marital satisfaction. This is not surprising since the correlation between husband and wife marital satisfaction was .72,  $p < .001$  (see footnote 1).

The results of the present investigation are consistent with Rubin's (1978) recent interview study of blue-collar couples. One of her conclusions was that the husband's lack of emotional responsiveness to his wife was a critical factor in creating marital stress.

Thus, they talk at each other, past each other, through each other—rarely with or to each other. He blames her: "She's too emotional." She blames him: "He's always so rational. . . ." This equation of emotional with nonrational, this inability to apprehend the logic of emotions lies at the root of much discontent between the

FIGURE 1. SCATTERPLOT OF MALE STRANGERS' AND HUSBANDS' RECEIVING ACCURACY (MCS II SCORE) AND THE WIVES' MARITAL SATISFACTION



sexes, and helps to make marriage the most difficult of all relationships (Rubin, 1978:116-117).

Rubin thus suggested that the husband's emotional nonresponsiveness is related to his equation of the emotional with the irrational.

Recently, Kelley *et al.* (1978) found evidence that husbands and wives in arguments *do* perceive themselves and each other as rational and emotional, respectively. Unfortunately, they did not relate their questionnaire, which, in part assessed sex-role stereotypes about emotionality, to marital satisfaction. Perhaps it is the case that, to the extent that husbands equate their wives' expressions of emotion with the irrational, and, hence, with the insignificant, they will be poor re-

ceivers of their wives' nonverbal behavior. The rational/emotional sex differentiation findings suggest that husbands in unhappy marriages are poor receivers of their wives' emotional messages because they discount or are confused by these messages.

An alternative hypothesis suggested by Kahn (1970) is that husbands in unhappy marriages *distort* their wives' emotional messages toward the negative. He wrote that, in his study "dissatisfied husbands were clearly more inclined than satisfied husbands to attribute negative connotations to their wives' attempts to communicate affection, happiness, and playfulness" (Rubin, 1979:455). Unfortunately, Kahn presented no data to

support his conclusion about affective distortion, and, what is perhaps even more unfortunate, other writers have assumed that he did. Our examination of the MCS items leads us to conclude that a test of the affective distortion hypothesis is not possible from the MCS alone. The same conclusion applies to the MCS II. To adequately test the affective distortion hypothesis, using only the MCS, items and alternatives that systematically range in affective content would have to be designed. A recent unpublished study (Noller, in press) tested the affect distortion hypothesis by revising Kahn's MCS to include items with positive, neutral, or negative affect. Noller replicated the Kahn (1970) result that couples high in marital satisfaction had higher MCS scores than couples low in marital satisfaction. Further, she found that significant differences were obtained only for the husbands as receivers. Using a nonspouse group of receivers, Noller also replicated the results of the present investigation; that is, she found that "there was a higher percentage of good communications incorrectly coded by males in the low marital adjustment group" (Noller:18, ms.). Finally, testing the affect distortion hypothesis, she found no evidence for a relationship between affective distortion and marital satisfaction.

#### SUMMARY

The results of the present investigation lend support to both the existence of a private message system in the nonverbal communication of satisfied couples and the existence of a husband-receiver deficit in the nonverbal communication of dissatisfied marriages. These appear to be relationship-specific strengths and deficits rather than traits that extend across situations. The deficit could relate to sex differences in the perceptions of emotionality. On the other hand, it could reflect the dissatisfied husband's emotional withdrawal from his wife. Subsequent research should be addressed to the precise nature of these strengths and deficits.

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