Rebound from Marital Conflict and Divorce Prediction*

JOHN MORDECHAI GOTTMAN, Ph.D.†
ROBERT WAYNE LEVENSON, Ph.D.‡

Marital interaction has primarily been examined in th · context of conflict resolution. This study investigated the predictive ability of couples to rebound from marital conflict in a subsequent positive conversation. Results showed that there was a great deal of consistency in affect across both conversations. Also examined was the ability of affective interaction to predict divorce over a 4-year period, separately in each of the two conversations. It was possible to predict divorce using affective variables from each conversation, with 82.6% accuracy from the conflict conversation and with 92.7% accuracy from the positive rebound conversation.

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OBSERVATIONAL investigations of marital interaction tend to sample couples' behavior using conversations designed to elicit conflict and problem solving (see Gottman, 1979). Although our laboratory reported that primarily negative affect predicted divorce (Gottman, 1993, 1994; Gottman & Levenson, 1992), a subsequent 9-year longitudinal study we conducted with newlyweds (with a newer version of our emotion coding system) found that low levels of positive affect during the first few months of marriage also predicted later divorce (Gottman, Coan, Carrère, & Swanson, 1998). With this newer emotion coding system focusing just on affect, our laboratory could now code not only the conflict-resolution conversation, but also the couple's discussion of the "events of the day" conversation, and we now had a sensitive instrument for measuring positive as well as negative affect.

This nonconflict aspect of marital interaction has received surprisingly little attention. Two exceptions are Gottman (1979, 1980) and Birchler, Weiss, and Vincent (1975). Gottman (1979, 1980) reported that it was possible to discriminate distressed from nondistressed couples whether they talked about a conflict issue in their marriage or worked on a "fun deck" task in which the admonition to the couples was to look over the deck of items, plan, reminisce, and have a good time. Birchler, Weiss, and Vincent (1975) used a self-report diary measure of "pleases" and "displeases," a precursor of the Spouse Observation Checklist. In the home environment, distressed partners recorded sig-

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† James Mifflin Professor of Psychology, Department of Psychology, University of Washington, Box 351525, Seattle WA 98195; e-mail:johng@u.washington.edu.

‡ Director, Institute for Personality Research, Department of Psychology, University of California, Berkeley.

nificantly fewer pleasing and significantly greater displeasing events than was the case for nondistressed partners. The ratio of pleases to displeases at home discriminated the groups quite dramatically: the ratio was 29.66 for nondistressed and 4.30 for distressed couples. Also, during the conflict resolution interaction, these authors computed a similar ratio using the Marital Interaction Coding System (MICS), an observational coding system: distressed couples produced an average of 1.49 positives per minute, while nondistressed couples produced an average of 1.93 positives per minute, a significant difference. Birchler, Weiss, and Vincent also had a period of 4 minutes of "free interaction" in which couples were instructed to "talk about anything while we are setting up the equipment." There were significant differences in these conversations between distressed and nondistressed couples only on negative, but not positive interaction (distressed negative rate 1.07 "negatives" per minute; nondistressed negative rate .73 "negatives" per minute).

We reasoned that if the conflict discussion is *followed* by a positive conversation, we can expect that there may be some spillover from conflict to nonconflict interaction. We thought that the couple's ability to rebound from negative affect that is generated by a conflict discussion might turn out to be a predictor of the eventual fate of the marriage. The investigation of this contention was the purpose of the present article.

Many marital interaction observational coding systems (such as the MICS), were specifically designed for problem-solving interaction, and they may not be appropriate for coding the nonconflict interaction. For this report, we employed an observational system, the specific affect coding system (SPAFF) that obtained considerably more detail and specificity in coding affect than the MICS, for both positive and negative affect (Gottman, 1996). This system also had the advantage that, unlike the MICS, it could easily be used to code both conflict and nonconflict interaction.

Four years later, the couples in our study were again contacted and their marital status was assessed. This made it possible for us to ask the questions of whether one could assess the most salient couples' affective behavior in terms of divorce prediction equally well in situations other than conflict resolution, and whether the patterns of prediction varied as a function of the type of conversation.

METHODS

Participants

Couples were originally recruited in 1983 in Bloomington, Indiana, using newspaper advertisements. Approximately 200 couples who responded to these advertisements completed a demographic questionnaire and two measures of marital satisfaction, for which they were paid $5.00. From this sample, a smaller group of 85 couples was invited to participate in the laboratory assessments and to complete a number of additional questionnaires. The goal of this two-stage sampling was to insure that we came close to obtaining a distribution of marital satisfaction in which all parts of the distribution would be equally represented. Complete sets of usable physiological data were obtained from 79 of these 85 couples. These 79 couples could be described as follows. Husbands were about 32 years old (SD = 9.5 years); (b) wives were about 29 years old (SD = 6.8 years). They were married an average of 5 years (SD = 6.3 years). The average marital satisfaction for husbands was (average of Locke-Wallace and Locke-Williamson scales) = 96.80 (SD = 22.16); and for wives the average marital satisfaction was 98.56 (SD = 20.70).

Procedures

Interaction Session

Couples arrived in the laboratory after having been apart for at least 8 hours. They had three 15-minute conversations: (1) events of the day; (2) conflict resolution (discussion of a problem area of continuing disagreement); and (3) a pleasant topic. In this article we report on only the latter two conversations.

The conversations were always in the order shown above for the following reasons. We wanted couples to have the events of the day conversation first because we wanted to sample this kind of everyday nonconflict interaction, and we wanted to begin our laboratory session with a reunion conversation that would seem natural and help make subjects comfortable with the laboratory situation. It was also the most natural way to start the couples' conversation after they had been apart for 8 hours. In pilot work in which we began with the conflict conversation, we found that there was an undesirable spillover of negative affect into the events of the day discussion.

We followed this events of the day conversation with the couples' conflict discussion. After filling out a problem inventory, the spouses were interviewed about an area of continuing disagreement in their marriage and asked to discuss this area and try their best to resolve the issue in the next 15 minutes. The conflict discussion was followed by the couple filling out an inventory of positive topics and an interview in which they were asked to identify a topic that they would both enjoy discussing. The plan for the post-conflict conversation was twofold: to debrief subjects so they could recover from the conflict conversation, and to assess the amount of recovery. Each conversation was preceded by a 5-minute pre-conversation period in which couples were asked to be silent and not interact, and during which we obtained baseline physiological measures (not discussed in this report). Details of the procedures for setting up these conversations are available upon request.

Followup

Four years after the initial assessment, the original subjects were recontacted and at least one spouse (70 husbands, 72 wives) from 73 of the original 79 couples (92.4%) agreed to participate in the followup. Spouses completed a set of questionnaires assessing marital satisfaction, and items relevant to possible marital dissolution. The two dichotomous variables, serious considerations of divorce in the 4 years since Time-1 and Time-2, and actual divorce will serve as the external criterion variables in our report.

Data Coding and Analysis

The videotapes of the interaction were coded using the Specific Affect Coding System (SPAFF), which focused on specific emotions. Coders were first trained using the Ekman and Friesen (1978) Facial Action Scoring System, with a set of our own audiotapes for recognizing affect in the voice, and a set of videotapes for detecting specific features in affect using paralinguistic, contextual, linguistic, and kinesic channels. However, the training went beyond specific features and observers were taught to use a Gestalt approach to recognizing specific emotions in all channels combined. The initial training of coders took over 200 hours. Coders classified each speech act (usually a phrase) within a turn at speech as affectively neutral, as one of five negative affects (anger, contempt/disgust, sadness, fear, whining), or as one of four positive affects (affection/caring, humor, interest/curiosity, and joy/enthusiasm). Coding manuals, training and test video and audiotapes are

available from the first author. The number of *onsets* of each code (that is, the number of episodes) for each code, collapsing across speech acts within a turn at speech; hence, for example, two consecutive speech acts by a husband that received the same code would be collapsed into one. The kappa coefficient of reliability, controlling for chance agreements, was equal to 0.75 for the entire SPAFF coding.

RESULTS

Comparisons of Conversations

To compare whether the conversations succeeded in inducing different amounts of positive and negative emotionality, the total amounts of negative and positive affect were computed for husband and wife separately. Positive affect was defined as the sum of humor, affection, interest, and joy. Negative affect was defined as the sum of anger, contempt/disgust, whining, sadness, and fear. Neutral affect was excluded from these computations. A series of paired t-tests were conducted.

In comparing the conflict conversation with the positive conversation, for the conflict conversation there was: less husband positive affect, $t(71) = 8.38, p < .001$, with means of 49.61 for the positive conversation and 21.15 for the conflict conversation; there was less wife positive affect, $t(71) = 8.76, p < .001$, with means of 50.83 for the positive conversation and 20.99 for the conflict conversation; there was more husband negative affect, $t(71) = 8.54, p < .001$, with means of 12.27 for the positive conversation and 42.11 for the conflict conversation; there was more wife negative affect, $t(71) = 10.71, p < .001$, with means of 13.87 for the positive conversation and 49.42 for the conflict conversation. Hence, the conflict discussion generated more negative affect and less positive affect than the positive conversation.

Divorce Prediction

Using the SPAFF data, two discriminant function analyses were conducted, one separately for each conversation. Codes were entered into the discriminant function only if their univariate F-ratios were statistically significant. For the conflict discussion, four SPAFF codes were entered: husband interest and contempt/disgust, and wife interest and sadness, with canonical correlation 0.43, and $\chi^2(4) = 13.23, p = .0102$. The percent correct prediction in the 4 years of stability and divorce was 82.6%. For the subsequent positive rebound conversation, four SPAFF codes were entered, husband anger, husband contempt/disgust, wife affection, and wife anger, with canonical correlation 0.59, with $\chi^2(4) = 27.56, p < .00001$. The percent correct prediction in the 4 years of stability and divorce was 92.7%.

Profile Analysis

Profile analysis was conducted by examining group means for each variable as well as correlations of each variable with the discriminant function (see Table 1). In the conflict discussion, the results of the profiles were that, at Time-1, couples who stayed married had more husband interest, less husband contempt/disgust, more wife interest, and less wife sadness than couples who eventually divorced. In the positive rebound conversation, the results of the profiles were that at Time-1, couples who stayed married had less husband anger, less husband contempt/disgust, less wife anger, but also less wife affection than couples who divorced.

Consistency of Affective Behavior

Table 2 is a summary of the correlations across the same affects across the two conversations. The highest correlation was obtained for overall amount of affective behavior, with lower correlations for specific affects. In predicting from the

TABLE 1

Profile Analyses: Means for Variables in the Divorce Prediction Discriminant Function Analyses

Variable	Still Together	Divorced
Conflict Conversation		
Husband Interest	10.88	4.63
Husband Contempt/ Disgust	4.62	10.13
Wife Interest	12.14	3.75
Wife Sad	2.18	5.88
Positive Conversation		
Husband Anger	1.06	8.29
Husband Contempt/ Disgust	2.05	11.14
Wife Anger	2.13	8.71
Wife Affection	2.52	5.86

Note: In this computation, the old SPAFF interest code was estimated as interest plus validation. Data are the number of onsets (episodes).

conflict discussion to the positive conversation, the highest correlations were for the amounts of nonneutral affect for both husband and wife. The specific affects that demonstrated consistency were husband humor, interest, joy, anger, contempt/ disgust, whining, fear, but not affection, and sadness; for the wife the specific affects that demonstrated consistency were humor, interest, anger, contempt/disgust, whining, and fear, but not affection, joy, and sadness.

DISCUSSION

Comparisons of positive and negative affect across the conversations show that, despite the conversations having occurred in a fixed order, the conversations were significantly different in the manner expected by the experimental inductions. The conflict conversation induced significantly more negative and less positive affect. Also, despite the positive conversation having followed the conflict conversation, the affect it induced was still far more positive and less negative than the affect the conflict conversation induced. Most couples were able to rebound from the negativity of marital conflict.

The divorce prediction results also suggest that patterns of emotional interaction can predict divorce or marital stability with fairly high accuracy in either of the conversations. In the conflict discussion, the predictors were husband interest, husband contempt/disgust, wife interest, and wife sadness.

The divorce prediction results were even better in the positive rebound conversation, 92.7% compared to 82.6% correct classification. In the positive rebound conversation, the results of the profiles were that, at Time-1, couples who stayed married had less wife anger, less husband contempt/disgust, but also less wife affection than couples who divorced. The only finding that is difficult to explain is the finding that, for couples who divorced, wives were more affectionate in the positive conversation than wives in marriages that stayed intact. However, we can propose the hypothesis that since among

TABLE 2

Correlations of Affective Behaviors Across Conversations

Variable	Conflict & Positive
Husband	
Total Emotionality	.71***
Humor	.28**
Affection	.18[a]
Interest	.50***
Excitement/Joy	.24*
Anger	.52***
Contempt/Disgust	.40***
Whining	.65***
Sadness	.18[a]
Fear	.72***
Wife	
Total Emotionality	.73***
Humor	.26*
Affection	.00
Interest	.46***
Excitement/Joy	.14
Anger	.38***
Contempt/Disgust	.38***
Whining	.48***
Sadness	.08
Fear	.60***

[a] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$

couples who divorced the higher level of wife affection is contextualized by higher levels of husband contempt/disgust, it may represent their compliance to being derogated by their husbands, and so their affection may be an index of a process that is not very functional; their affection in the face of their husband's disgust and contempt may represent a time bomb for this ailing marriage. We have observed a similar pattern with physically abused wives. In these marriages the wife's affection in the face of her husband's contempt and disgust toward her may represent compliance, fear, and holding on to a dream that the contempt is ephemeral.

These results suggest that marital investigators and therapists might benefit from considering the construct of a couple's resilience in being able to rebound from the negative affect during marital conflict. The results of this investigation also provide support for the consistency of emotionally based marital interaction patterns across consecutive conversations that varied a great deal in the amount of positive and negative affect that they induced. Despite these overall differences in emotionality, couples were quite consistent in most emotions across these conversations.

An intentional design of the present investigation was that the order of conversations was not randomized or counterbalanced. Our intention was to assess spillover of negative affect from the conflict to the positive conversation. We cannot say with confidence whether the results would be the same if the behavior observed during the positive conversation was not a function of the conversation that preceded it. For example, would the same or different effects be obtained in divorce prediction on the positive conversation if it had been the only conversation in the study? At this time, we cannot say. The results of the *t*-tests do suggest that order effects, if they exist at all, were not large. The conflict induction seemed to work quite well in inducing less positive and more negative affect, and the positive induction was also successful. However, at this time, until there is further research, we cannot draw conclusions about the nature of the couple's affective behavior conversations independent of their order. Nonetheless, we are quite encouraged by the divorce prediction results from each of the conversations.

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