The attributes of couples planning to marry can affect their future relationship satisfaction. To study this phenomenon, a social exchange model was applied to a sample of couples planning to marry to assess the predictive validity of a measure of positive exchange. The longitudinal design of the two-and-a-half year investigation provided direct information about the development of marital distress which was unavailable from previous cross-sectional studies. Study results indicated that the more positively couples rated their early interactions, the higher their relationship satisfaction was likely to be at the final followup. The social exchange model proved to be a useful model for understanding the development of marital problems, but limitations regarding its testability must be recognized and rectified. The implications of the study for the marital interactions are discussed, as well as implications for developing programs designed to prevent marital distress. (Author/PRK)
A Longitudinal Study of Premarital Couples:
A Social Exchange Perspective

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Introduction

The social exchange model of marriage views marital distress as resulting from the couple's reliance on negative reinforcement strategies to change each other's behaviors, which produces unsatisfying outcomes for the couple. Nondistressed couples, on the other hand, learn to use positive reinforcement and minimize negative interaction cycles (Stuart, 1969; Liberman, 1975).

Recent studies of marital interaction (e.g., Gottman, Notarius, Markman, Bank, Yoppi & Ruban, 1976; Birchler, Weiss & Vincent, 1975) have used a social exchange framework to identify variables which have reliably discriminated between distressed and non-distressed groups of married couples. These studies found that distressed couples rate their communication during problem-solving tasks as being more negative and less positive than do nondistressed couples, and objective observers code the interaction of distressed couples as being more negative and less positive than that of non-distressed couples. These findings were interpreted as supporting a social exchange model of marriage (Vincent, Weiss & Birchler, 1974). Furthermore, the social exchange model has been used as the basis for marital therapy programs designed to improve the problem-solving strategies of distressed couples (Gurmah & Kniskern, in press).

However, since the distressed couples in these cross-sectional...
studies had experienced marital distress for an undetermined amount of time the experimental effects may have reflected the consequences rather than the antecedents of marital distress. This interpretation challenges the social exchange model of marriage which predicts that the couple's interaction is the key factor in determining current or future marital satisfaction as opposed to non-interaction factors such as the type or intensity of problems with which the couple is faced. The validity of the social exchange model rests on documentation that characteristics of the couple's interaction maintains and/or causes marital distress. Since cross-sectional designs preclude the description and understanding of developmental events, a longitudinal design is needed to assess the role of interaction variables in the development and maintenance of marital distress.

The major aim of the present investigation was to use a longitudinal design to test the predictive power of interaction variables found to have discriminatory power in cross-sectional studies of marital interaction. A secondary aim was to use a high risk methodology, similar to that used in schizophrenia research (Mednick & McNeal, 1968) to provide an empirical basis for identifying couples at risk for developing distressed relationships. It was predicted, based on the social exchange model, that the ability to problem solve effectively (i.e., in a way which maximizes joint outcomes) early in the couple's relationship should be predictive of future relationship satisfaction.

Couples were studied at three stages of their relationship
(planning marriage, 1 year later, 2½ years later). The major predictor variables reflected interaction and non-interaction dimensions of the couples' relationship. The interaction measures reflected the couples' ratings of the perceived positivity of their problem solving interaction. The non-interaction measures reflected intensity of the couples' premarital problems and the couples relationship satisfaction. The major outcome variables were the couples' relationship satisfaction at the two follow-up points (times 2 and 3).

Method

Twenty-six couples from a midwestern university community who were planning marriage volunteered to participate in a study of premarital relationships.

Four of the 26 couples did not complete the initial laboratory interaction stage of the study and were eliminated from that part of the data analysis. However, these 4 couples did participate in the follow-up stages of the study.

In order to be included in the data analysis the couples had to have maintained their relationship and completed the outcome measures at one or both follow-up points. Sixteen couples met these criterion at both times two and three. The couples who dissolved their relationship prior to the follow-up point were excluded from the data analysis for that follow-up point because the focus of this study was on predicting degree of satisfaction of intact couples rather than on predicting relationship stability. The data on predictors and models of relationship stability will be presented
in another paper.

The procedures in the present study were similar to those used by Gottman et al. (1978) so that the cross-sectional and longitudinal data could be directly compared to previous cross-sectional findings. During the initial stage of the study (time 1) all couples completed an assessment battery which included measures of problem intensity and relationship satisfaction (a revised version of the Locke-Wallace Marital Relationship Inventory (Locke & Wallace, 1959)). Then, 22 of the 26 couples were audiotaped discussing five problem solving tasks including a discussion of one of their major problem areas. As they interacted the couples used a "talk table" to rate the intended impact (intent) and actual impact (impact) of their statements on a 5 point scale ranging from super negative (1) to super positive (5). The primary predictor variables were derived from the talk table ratings. The impact ratings a direct measure of the perceived positivity of the interaction from the listener's perspective, the intent ratings a measure of intended positivity from the speaker's perspective.

The couples were followed up at 1 year (time 2) and 2½ years (time 3) intervals. Their relationship status (married, planning marriage, broken up) and relationship satisfaction was assessed and they were asked to participate in another laboratory interaction session. Relationship status data were obtained from all 26 couples at each follow-up point. Of the couples still together at time 2 (N = 23) and time 3 (N = 21) 16 couples at each follow-up
point provided data on relationship satisfaction.

Results

To assess the predictive power of the intent and impact ratings the five intent and impact categories were considered as a 5-point Likert scale ranging from 1 (super-negative) to 5 (super-positive). For the purposes of this analysis, the intent and impact ratings were combined across the five tasks. Mean Locke-Wallace scores were used as the outcome variable since the focus was on the couple rather than individuals and to be consistent with other studies in the area.

The results showed that there was virtually no association between male and female impact ratings at time 1, and relationship satisfaction at time 2. However, there was a highly significant correlation between impact ratings at time 1 and relationship satisfaction at time 3 (males $r = .61, p < .01$; females $r = .60, p < .01$). The more positive the couple's exchanges at time 1, the more satisfied the couple was with their relationship at time 3. A replication of this pattern was obtained when the male and female impact ratings at time 2 were correlated with relationship satisfaction at time 3 ($N = 6$). The results indicated that both male and female time 2 impact ratings were positively associated with time 3 relationship satisfaction (male $r = .554, p < .05$; female $r = .560, p < .05$).

Surprisingly, time 1 intent ratings were also predictive of time 3 relationship satisfaction. The more positive the time 1 intent the more satisfied the couples were at time 3. This finding
wasm unexpected because intent ratings had no discriminative power in the Gottman et al. (1976) studies. Thus, the social exchange predictions were supported at time 3, but not at time 2.

Another way of viewing this data is by using an ANOVA design, considering the impact ratings as the dependent variables and whether or not the couple was satisfied as the independent variable. Couples were divided into high or low satisfaction groups. There were no differences between the satisfied and dissatisfied groups at times 1 and 2. However, there were significant differences between the groups at time 3 (see Table 1). Furthermore, the impact differences between satisfied and unsatisfied couples increased over time (see Figure 1).

A cross-lagged panel correlation analysis (Kenny, 1975) was used on the subset of couples who provided interaction data at both time 1 and time 3 ($N = 6$) to tentatively explore the possible causal patterns in this data (see Figure 2). For the males, the cross-lags indicated a large significant difference ($Z = 3.82$) suggesting that perceived positivity of communication at time 1 may be causally related to relationship satisfaction at time 3 (see Table 2). The female results were inconclusive. This data must be interpreted with caution given the small, unrepresentative sample of couples upon which it was based.

Correlational analyses were used to assess the predictive power of the non-interaction variables (problem intensity and relationship satisfaction). The results indicated that both high problem intensity and low relationship satisfaction at time 1 were
strongly associated with low relationship at time 2 and weakly associated with relationship satisfaction at time 3.

In order to determine how the correlational results presented above could be used to identify couples at risk for developing relationship distress, a step-wise regression procedure was used such that the major predictor variables were regressed on the relationship satisfaction outcome variables at both times 2 and 3.

The results generally indicated that non-interaction variables (Problem Intensity and Relationship Satisfaction) were the best predictors of time 2 relationship satisfactions ($R^2 = 66\%$) whereas interaction variables (intent and impact ratings) were the best predictors of time 3 relationship satisfaction ($R^2 = 67\%$). These results demonstrated that there were early signs of impending relationship distress but that these risk factors differed as a function of lag between time 1 and follow-up.

Conclusions

The longitudinal design of the present investigation provides direct information about the development of marital distress which was unavailable from previous cross-sectional studies. The results indicate that differences in impact ratings precede the development of marital distress and therefore provide evidence that the differences in positive exchange found in the cross-sectional studies are not merely a reaction to marital problems. The results of the cross-lagged panel correlation provide some support for the conclusion that the deficiencies in positive exchanges are causally associated with the development of marital distress.
However, the failure to confirm social exchange predictions at time 2 and the importance of non-interaction variables suggests that other factors, in addition to social exchange variables, account for considerable variance in the development of relationship distress.

Nevertheless, it is reasonable to speculate about possible explanations of the results within the social exchange framework. Couples who become distressed may not have developed a stable, satisfying system of exchange. These couples may not: (a) be able to establish a mutually satisfying set of activities, perhaps due to restricted repertoires, and (b) have developed the exchange skills necessary to adapt to differences in the reward value of behavior and activities. Therefore, these couples may gradually decrease the frequency of their interaction and start to seek rewards elsewhere. For example, Weiss, Hops and Patterson (1973) found that distressed couples spend less time interacting than non-distressed couples and therefore have less opportunity to reward each other. It is as if all couples start with a sizable "relationship bank account" (Gottman et al., 1976) and that couples who become distressed start withdrawing from the "account" before marriage and continue to do so afterwards. In contrast, couples who do not become distressed continually make deposits to their "account" through mutually rewarding interaction. The lack of predictive power of impact ratings at time 2 suggest that the withdrawals do not reach a critical point for a relatively long time.

The results of the regression analyses provide evidence that
the development of marital distress can be predicted with reasonable confidence so that clinical decisions can be made concerning inclusion into a prevention program. The regression results presented above should be applied to other samples of couples planning to marry for a replication of the current findings and to tentatively identify couples who are at risk for developing marital problems. These couples could be tagged and followed in a high risk study. Furthermore, a subset of the tagged couples could participate in a prevention program aimed at improving their chances of having a satisfying relationship. However, the results also indicate that the high risk variables differ as a function of length of follow-up period. More research needs to be conducted to cross-validate the present findings and to empirically establish predictive schemes for longer follow-up periods. These studies are in progress. Furthermore, it would be profitable for future investigators to directly investigate the evolution of marital problems in couples at risk for marital distress, using frequent follow-up contacts to assess rate of reward, frequency of interaction and the search for alternative sources of reward.
References


