

# 5 A Contextual Model for Advancing the Study of Marital Interaction

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In their book, *Communication, Conflict, and Marriage*, Raush, Barry, Hertel, and Swain (1974) expressed strong discontent with the theoretical and methodological inadequacies that characterized prevailing research on marriage. Their study, noteworthy for its emphasis on observational rather than self-report assessments of interpersonal behavior, played a significant role in bringing about a new tradition of research on marriage in which the primary focus was on the overt behaviors exhibited by spouses in interaction. As a result of more than a decade of research conducted within this tradition, much is known about the behavioral correlates of marital dissatisfaction (see Christensen, 1987; Noller & Fitzpatrick, 1990; Weiss & Heyman, 1990) and about the impact that clinical modification of these behaviors can have on marital functioning (see Beach & Bauserman, 1990; Hahlweg & Markman, 1988).

Although the empirical aspect of the Raush et al. study stands as an enduring contribution, the theory underlying this work, which emphasized covert factors in marital interaction at least as much as overt factors, has received far less attention. An essential feature of this theory is the concept of *object relations schemata*, defined as

organizing structures for experiential events. Schemata determine the meanings of events and the contingencies they have for thoughts, feelings, and actions. Object relations schemata develop from experiences with others; they organize images of oneself and others and the relations between oneself and others. . . . What is communicated between interaction partners depends on object relations schemata. (1974, p. 49)

The significance of highlighting the differential impact of the empirical and theoretical facets of the Raush et al. (1974) volume derives from recent developments in the study of marriage. Specifically, following demonstration of a robust association between overt behavior and marital satisfaction, there has been a growing realization that a complete account of marital interaction requires analysis of the affective and cognitive processes that accompany observable behaviors. Studies addressing these processes represent the beginning of a *mediational tradition* of research on marriage (Bradbury & Fincham, 1989; see also Glick & Gross, 1975; Gurman & Knudson, 1978; Margolin, 1983) in which greater emphasis is being placed on thoughts and feelings pertinent to marital interaction and marital quality. With this important development, it is clear that the study of marriage has arrived at a juncture long ago advocated by Raush and his colleagues. However, whereas Raush et al. provided little direct data with which to support or refute their theoretical position, the current situation appears to be marked by a wealth of provocative data that could benefit from greater conceptual guidance.

We offer in the present chapter a conceptual analysis to guide mediational research on marriage. In doing so, we elaborate upon the large body of research on overt behavior in marriage in order to begin working toward a more comprehensive view of the affective and cognitive underpinnings of marital interaction. The chapter is organized into three sections. In the first we discuss the rationale for a model that includes, but is not restricted to, overt behavioral aspects of marriage, and we then present a framework within which the behavioral data can be understood. Although it would be reasonable to propose that the theory posited by Raush et al. could be used in this regard, we maintain that their formulation requires further specification if it is to organize existing research and guide future data collection and, moreover, that it can be enriched with the advances made in the study of marriage over the past two decades. The second section is an attempt to apply our model to reinterpret existing research findings and to direct future research efforts for understanding marital interaction and dysfunction. The chapter concludes with a summary and overview, where we highlight major themes of the chapter and identify some of its limitations.

## A CONTEXTUAL MODEL OF MARITAL INTERACTION

### Rationale for an Expanded Conception of Marital Interaction

Introduction of any competing framework for understanding marital interaction requires examination of existing frameworks and a justification for any modifications that are made to them. Many factors make this a difficult task (e.g., much

of the thinking about marital interaction has not been formalized into models), yet it is possible to extract some basic premises that have guided past research on marital interaction and to evaluate them in light of relevant data. Most salient among these is the view that distressed couples, compared to nondistressed couples, engage in interactions that are characterized by a higher rate of negative behaviors and a greater likelihood that negative behaviors will be reciprocated; opposite, albeit weaker, associations are sometimes posited for positive behaviors. These behavioral tendencies are also hypothesized to be a major *causal agent* in spouses' judgments of their marital quality.

Numerous cross-sectional studies present data consistent with the first of the above hypotheses, as distressed couples have been found to exhibit and reciprocate negative behavior at rates higher than those found for their nondistressed counterparts (for reviews, see Christensen, 1987; Schaap, 1984; Weiss & Heyman, 1990). In contrast, few studies have focused on the possible causal impact of behavior on marital quality, and their results are less compelling. Filsinger and Thoma (1988), for example, conducted observational coding of couples' interactions and examined the associations between the coded behaviors and spouses' later judgments of marital adjustment. Although higher rates of females' interruptions were consistent predictors of lower levels of males' marital adjustment up to 5 years later, the authors observed that "generally there were no significant relationships between behavioral predictors at Time 1 and dyadic adjustment at Times 2, 3, 4, and 5" (p. 792). Most notable in their absence were associations between base rates of negative behavior, reciprocity of negative behavior, and later marital adjustment.

A similar study by Gottman and Krokoff (1989) revealed the expected cross-sectional associations between coded behavior and marital satisfaction, but found that these associations were reversed when changes in marital satisfaction over a 3-year period were predicted. Thus, higher levels of negative behaviors were related concurrently to lower levels of marital quality and to *increases* in marital quality over time (although this latter effect failed to reach significance for wives' behavior), and higher levels of wives' positive verbal behaviors were related concurrently to higher levels of marital quality and to *decreases* in marital quality over time (see *Longitudinal Analyses of Interaction*, below).

In sum, a wealth of cross-sectional data support a model linking maladaptive overt behavior to lower levels of marital quality, yet recent longitudinal data make it difficult to sustain a model whereby maladaptive behavioral tendencies (e.g., more negative behavior, less positive behavior) are expected to exert a causal influence upon declines in marital quality. Although these longitudinal findings are not without limitations (e.g., they are based on small samples; no follow-up assessments of behavior were undertaken so as to determine the effect of satisfaction on later behavior), they do offer a clear rationale for proposing a model of marital interaction that extends beyond overt behavioral phenomena.

Specifically, it appears that any causal effect of behavior on marital quality is probably not straightforward and, even if it were, nevertheless would leave unanswered the question of how behavior exerts this effect.

We must emphasize that our calling for an extension of the behavioral perspective is by no means a novel proposal, as many writers in the clinical and empirical literatures have commented upon the limitations of such a narrow conception of marriage, especially in view of data indicating that (a) it is the nonverbal aspect of behavior rather than the content of speech that is most powerful in distinguishing distressed and nondistressed couples (e.g., Gottman, 1979), thus suggesting that the findings for overt behavior are masking potent affective variables, and that (b) spouses typically have quite different impressions of the events in their marriage (e.g., Jacobson & Moore, 1981), thus suggesting that cognitive variables are also highly influential in the course of marital interaction. Despite this common realization, however, the study of marital interaction is marked by "the absence of a dominant, coherent theoretical model" (Snyder, 1989, p. 3), and hence there is a pressing need to outline a framework that formalizes some of the recommendations that have been made for infusing the overt behavioral model with much greater attention to covert factors. Thus, while the field has moved well beyond an exclusively behavioral formulation of marriage, the directions it has taken are many and in need of organization.

Two points bear noting before we attempt to provide some of this needed organization. First, justification for expanding the behavioral formulation of marriage comes not only from behavioral data that appear at odds with that approach but also from findings that point to cognitive or other nonbehavioral variables which explain variance in marital quality, especially *changes* in marital quality. Nonbehavioral data of this sort, which supplement the argument advanced in this section, are described in later sections in order to address the issue of *how* a behavioral conception is best expanded. Second, the framework described here shares some features with the influential perspective on close relationships presented by Kelley et al. (1983, chap. 2), a necessary consequence of the broadly inclusive nature of the Kelley et al. model. The two approaches differ in significant ways, however, and we refer the reader to a discussion of these differences in Bradbury and Fincham (1989).

### Overview of the Contextual Model

Among the most impressive features of marriage are, first, that almost every adult in the United States marries and, second, that the proportion of marriages ending in divorce is about 1 in 2 (Cherlin, 1981). It is these factors, together with the corollary observation that many nondivorcing spouses are discontented with their marriages, that justify careful conceptual and empirical examination of marital interaction and its relation to marital dysfunction. An equally impressive aspect of marriage is that it is exceedingly complex and thus requires considera-

tion of many interrelated phenomena if it is to be understood. Rather than begin addressing this complexity by identifying a single class of related variables and determining their relation with marital quality (e.g., as was done typically in the behavioral tradition), we instead attempt to identify a small set of components that we believe capture, directly or indirectly, the essential features of marital interaction. Each component of the model itself represents a host of variables and processes, and taken together they may facilitate a more comprehensive portrayal of how marriages become better or worse. (For related presentations of the contextual model, see Bradbury & Fincham, 1987a, 1988b, 1989; and Fincham, Bradbury, & Grych, 1990).<sup>1</sup>

As shown in Fig. 5.1, five components for each of two spouses are proposed as necessary for understanding marital interaction. First, a spouse, who we will designate arbitrarily as the wife, engages in the *processing* of some stimulus, which is usually some event in the environment (processed via path a) or, perhaps more specifically, a *behavior* enacted by the husband (processed via path b). The processing stage involves a series of events (not shown in Fig. 5.1) that serve to impart meaning to the husband's behavior, beginning with an attentional/perceptual step that is followed by a step in which the wife extracts information from the incoming stimulus and forms some representation of it. We propose that this processing takes place along three dimensions, indicating the degree to which the behavior is positive versus negative, expected versus unexpected, and personally insignificant versus personally significant (see Bradbury & Fincham, 1987a). To the extent that evaluation of the stimulus yields a judgment indicating that it is positive or neutral, expected, and/or personally low in significance, the wife will consider some response alternatives and enact a behavior of her own (via path c) at that point. To the extent that evaluation of the stimulus yields a judgment indicating that it is negative, unexpected, and/or personally high in significance, the wife may have a globally negative affective response that may become specified further on the basis of the results of an attributional search. In this search the wife will identify a cause for the stimulus and seek possibly to assign responsibility for it; and on the basis of that interpretation, she will consider some response alternatives and enact one of them (again via path c). (See Fletcher & Fincham, this volume.) In either of these two cases (i.e., without and with additional processing), the resulting behavior will be accessible to the husband (via path b) and will serve in turn as a stimulus that the husband will process, which will lead in turn to his enacting a behavior (via path c), which the wife will process, and so on. This notion can be specified

<sup>1</sup>Although the contextual model is presented here in terms pertaining to marriage, we believe it is equally applicable to the many sorts of relationships in which dyadic interaction takes place. Our emphasis on the contextual model as it applies to the marital dyad stems from an ultimate interest in identifying factors that may give rise to marital dysfunction, so that it may be prevented or treated in clinical settings.

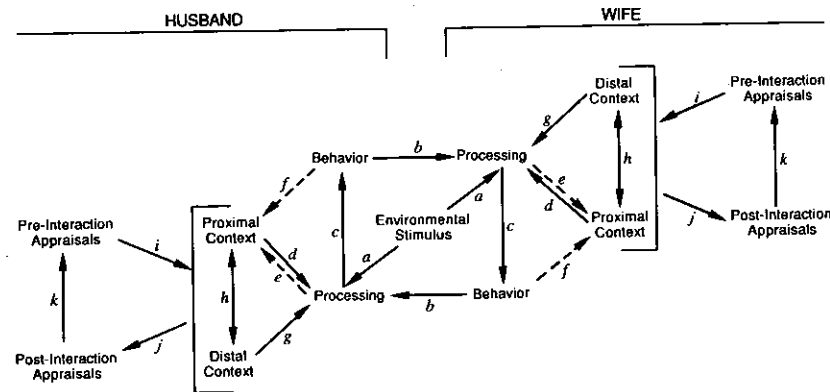


FIG. 5.1. The Contextual Model of Marital Interaction. According to the model, a spouse processes an environmental stimulus (via path a) and/or a partner behavior (via path b), and that processing leads to the spouse's own behavior (via path c) which is then subject to processing by the partner. Processing is influenced by transient thoughts and feelings (via path d) that comprise the proximal context, which is updated frequently in the course of an interaction by feedback from the processing of partner behaviors (via path e) and by the spouse's reflections upon his or her behavior (via path f). Processing is influenced also by relatively stable psychological features of the spouse (via path g) that comprise the distal context, which is related bidirectionally to the proximal context (via path h). In addition, thoughts and feelings before an interaction, shown here as pre-interaction appraisals, will influence the course of the interaction (via path i), and events during the interaction will influence thoughts and feelings after an interaction (via path j), shown here as post-interaction appraisals. Finally, appraisals following one interaction will determine, in part, the nature of appraisals before a subsequent interaction (via path k). For clarity, depiction of the model has been simplified, especially in the processing stage; see text for further details.

further by noting that spouse behavior will have a public aspect (e.g., speech, facial movements, posture, gestures) and a corresponding private aspect (e.g., thoughts, feelings, physiology), and that it is the public aspect which will initiate most directly the partner's response.

The processing stage, which occurs very rapidly and typically without conscious awareness, is influenced by two other components or general classes of variables. One such component is the *proximal context*, which includes the transient, momentary thoughts and feelings that the wife experiences (usually as a result of prior events in the interaction); these thoughts and feelings provide an immediate frame within which each new partner behavior is processed (via path d). A spouse's proximal context is updated frequently in the course of an interaction, on the basis of his or her processing of partner behavior and environmental

events (via path e) and the behaviors that he or she has enacted (via path f); for clarity, these two feedback paths are represented as dashed lines in Fig. 5.1.

A second component proposed to influence the processing stage (via path g) is the *distal context*, which, in contrast to the proximal context, includes relatively intransient, stable psychological characteristics of the spouse. Elements in the distal context, which are themselves interrelated, include personality and temperament; chronic mood states, expectations, goals, and rules for the relationship; beliefs about how relationships should function; and representations of the self, prior relationships, the partner, and the marriage. The distal context and the proximal context are themselves related bidirectionally (via path h), indicating that stable aspects of an individual are related to his or her thoughts and feelings within the interaction, and that stable aspects of an individual can change as a function of those thoughts and feelings.

This network of four components is embedded within a fifth and final component, which pertains to the *appraisals* that spouses make before and after their interactions. These appraisals influence (via path i), and are influenced by (via path j), the proximal and distal contexts, and thus affect indirectly the processing of behavior. Appraisals can be spontaneous thoughts or feelings or responses to environmental stimuli, and they can be either marital or nonmarital in focus. In addition, post-interaction appraisals from one interaction can influence pre-interaction appraisals before a subsequent interaction (via path k).

To summarize, because existing longitudinal data do not support the simple hypothesis that maladaptive behavior accounts for declines in marital quality, we argued for a model of marriage that includes but is not limited to behavior and marital satisfaction. We then described the basic components of a contextual model of marital interaction in which the partner's behavior in interaction is processed by the spouse, and that processing is qualified by responses to prior events in the interaction and by stable psychological features of the processing spouse (e.g., marital satisfaction). These events themselves influence, and are influenced by, the thoughts and feelings that spouses bring to an interaction and their reactions following interaction. An important next step of our presentation is to assess the degree to which such a formulation permits clarification of existing research and identification of new topics for study.

#### RESEARCH IMPLICATIONS OF THE CONTEXTUAL MODEL

The model outlined in the previous section is intended to facilitate an understanding of marital interaction and dysfunction. In this section we attempt to accomplish this task more directly by demonstrating how the model integrates existing findings and offers directions for new research. To simplify this task, several marital research domains are discussed, and in each case a review of findings is

combined with suggestions for how those topics might be explored in the future. However, coverage of existing research will be selective rather than exhaustive, and where possible, attention will be given to studies that permit some degree of causal inference to be made.

### Longitudinal Analyses of Interaction

Earlier we described a study by Gottman and Krokoff (1989) in which higher rates of negative behavior were related to lower levels of concurrent marital satisfaction but to increases in marital satisfaction over 3 years (although this only approached significance for wives). The cross-sectional findings mesh well with the large literature on marital interaction but leave unanswered the question of why behavior and satisfaction might be related. The contextual model (see Fig. 5.1) indicates that the processing stage is a critical intermediate step in this association, and research that begins to examine the processing stage is examined in the next section. In contrast, the longitudinal findings are unique in the marital literature and hence await replication, particularly in light of methodological uncertainties (e.g., small sample, low ratio of subjects to variables, uncertain clinical significance of changes in marital satisfaction, use of groups having extreme marital satisfaction scores; cf. Woody & Costanzo, 1990). If the validity of these results is granted, however, they raise the specific question of how negative behaviors lead to improvements in marriage as well as the general question of how events in marital interaction lead to changes in elements of the distal context, especially marital satisfaction. It is this general question with which we will be most concerned with here.

According to the contextual model, the behaviors that a spouse exhibits and the partner behaviors that she processes lead to changes in her transient thoughts and feelings, or proximal context (via paths e and f, respectively). Following an interaction the spouse will make appraisals of what has occurred (via path j) and, especially if the interaction was a negative one, those appraisals may yield unfavorable feelings and judgments about the marriage. Appraisals of this sort may in turn lead her (via path k) to approach a subsequent interaction with the expectation that her partner will be critical or unsupportive (via path i), such that her proximal (and possibly distal) context will predispose her to process partner behaviors in a negative fashion (via path d). This may lead to a confirmation of her earlier appraisal and, over time, to a stable belief that her marriage is unsatisfying (via path h) which will in turn influence later processing of partner behavior (via path g).

This series of events can be restated as follows: Spouses learn on the basis of their interactions and the appraisals that follow from them whether or not they are in a rewarding relationship, and this judgment influences later interactions. This learning is especially significant if it takes place in the context of *conflict*, which can be defined as perceived incompatibility of goals (see Fincham & Bradbury, 1991). Thus, if spouses engage in conflictual discussions and are left feeling

threatened, unfairly criticized, hurt, and unsupported, they will approach subsequent interactions with the belief that they will be similarly destructive. They will eventually learn, or realize, that their marriage is not fulfilling their needs. On the other hand, if couples engage in conflicts and leave them feeling understood, appreciated, and respected (or at least *not* grossly misunderstood, unappreciated, and disrespected) and as though "the air has been cleared," then subsequent interactions will not begin in the face of biased proximal and distal contexts and spouses will gradually come to realize that the marriage can be a rewarding one. It follows that those couples who avoid conflict never have the opportunity to know whether theirs is a marriage that can "weather storms" and that those who engage in conflict routinely (and/or have more sources of conflict) will learn more quickly that their marriage is unhappy, barring the operation of strong processes to the contrary (e.g., a spouse's distal belief that conflict is a way the partner expresses his affection and that this is reasonable and satisfying for her).

Returning briefly to the results reported by Gottman and Krokoff (1989), we might infer from the foregoing argument that some spouses were able to exit their conflictual interactions with the belief that the conflict would not threaten the fabric of their marriage. Indeed, the realization that the marriage could withstand potentially damaging interactions may have contributed to the increases in satisfaction that were obtained. Although this would seem to be a surprising accomplishment in a sample comprised of a substantial proportion of distressed couples, the fact that couples had been married on average almost 24 years suggests that they had already learned quite well that they could withstand considerable conflict. Thus, replication of this study using a younger sample (i.e., couples who have not yet had as much experience with conflict) should yield a very different set of findings. Such a study should also include assessment of (a) interaction at several points in time to determine the extent to which behavior is a function of earlier satisfaction, and of (b) variables known to be highly correlated with satisfaction (e.g., depression) to determine whether they are contributing to longitudinal change.

In sum, we argue from the perspective afforded by the contextual model that spouses' judgments about their marital quality are a function of their accumulated experiences during and after interaction, especially interaction that involves perceived conflict in goals. Such a learning-based mechanism, which is undoubtedly influenced by many factors (e.g., environmental stressors, personality, experience in prior relationships) and which is not inconsistent with recent longitudinal findings, may aid in understanding how interactional events come to influence relationship judgments.

### On-Line Judgments of Behavior

As noted in the previous section, the association between behavior and marital satisfaction leads naturally to the question of why these constructs are related, and the contextual model that we have outlined implicates the processing stage

(and other components in the model to which it is linked) as a central factor in this association. To reiterate, the processing stage involves an attentional-perceptual step, followed by the formation of a representation of selected aspects of the partner's behavior, and an affective response. Then, depending upon the evaluation of that representation (i.e., along dimensions of positive versus negative, expected versus unexpected, and personally insignificant versus personally significant), behavior will follow directly or will follow an attributional judgment. It is possible that maritally distressed and nondistressed couples differ in any or all of these steps within the processing stage (or, of course, in none of them).

Recognizing the importance of the events interposed between spouses' behaviors, Gottman et al. (1976) devised a structured interaction task whereby every exchanged message was rated for its intended impact by the spouse who sent it and for its actual impact by the spouse who received it. All judgments were made on a 5-point scale ranging from very positive to very negative, and discrepancies between the intended impact of messages and their actual impact was examined among satisfied and dissatisfied couples. Results from this and subsequent "talk-table" studies typically show that spouses from both groups send messages with positive intended impact but that messages of distressed spouses are received with a negative actual impact (for a review, see Bradbury & Fincham, 1987b). Early studies suggested also that these judgments would be predictive of later satisfaction, although this possibility has now been called into question (see Markman, Duncan, Storaasli, & Howes, 1987).

In terms of the contextual model, this procedure requires spouses to attend to a partner behavior (path b), report on one of the steps within the processing stage (i.e., the globally positive versus negative quality of the partner's message), to behave presumably on the basis of that processing (via path c), and then to report on one aspect of their proximal context (i.e., the intended impact of their own message, path f). The assumption is that one element in the distal context, namely marital satisfaction, will influence one aspect of the processing stage (via path g).

Juxtaposing the talk-table procedure and the contextual model suggests a variety of directions for research. First, surprisingly little is known about the attentional and perceptual characteristics of spouses in interaction (see Fletcher & Kininmonth, this volume). The significance of this issue and how it might be studied have been treated at length elsewhere (Bradbury & Fincham, 1989) and we refer the reader to that discussion. Second, the contextual model makes salient the fact that nearly all research using the talk table addresses the relation between the intended impact of the behavior emitted by one spouse and the perceived intent of that behavior by the partner, an analytic approach that neglects the link between the processing stage and the processing spouse's own behavior (path c). This link is likely to be critically important because it is presumed that happily married spouses are somehow able to process, or edit,

incoming negative behavior in a way that does not lead to its reciprocation, whereas distressed spouses possess this ability to a lesser degree and hence exhibit longer behavioral sequences marked by negative reciprocity.

Preliminary, albeit indirect, evidence of such *cognitive editing* was reported by Gottman (1979), who found that, whereas nearly all spouses were likely to reciprocate negative partner behavior, happily married wives proved to be the exception to this rule; they did not exhibit negative behavior after expressing a negative nonverbal reaction while listening to their husbands. Notarius, Benson, Sloane, Vanzetti, and Hornyak (1989) subsequently examined this process directly by conducting a standard talk-table study in which the link between spouses' perceived impact ratings and their own behavior (i.e., path c) was also examined. As anticipated, given that a negative partner behavior had been evaluated as negative by the receiving spouse, nondistressed wives were more likely to respond with a positive behavior than were distressed wives.

Apart from the observation that it appears to happen most among happily married wives, there are few clues as to why editing occurs. The contextual model suggests some possibilities in this regard. In terms of the processing stage, happily married wives may reciprocate negative behaviors less because they make attributions that are more benign (see next section) or because they are able to separate a negative evaluation of partner behavior from a judgment that it is self-relevant. In terms of the proximal context, happily married wives may be more sensitive to subtle changes in negativity, such that when a series of negative behaviors of decreasing intensity are exhibited by the husband she recognizes this shift and responds favorably. In terms of the distal context, happily married wives may recognize that the husbands' negative behaviors have not led to problems in the past (e.g., no post-interaction appraisals marked by strong negative affect) and thus they are able to discount them (e.g., in the processing stage), or they may have less experience with negative relationship events and hence have fewer negative associations with the behaviors, or they may possess the belief that "being argumentative never really solves anything."

In sum, studies using the talk-table procedure help to illuminate one aspect of the processing stage, which in turn has afforded a more thorough understanding of the association between negative reciprocity and marital dysfunction. There are few explanations for why happily married wives tend not to reciprocate negative behaviors, and we have attempted to show that the contextual model can serve as a source of hypotheses for this phenomenon. Nevertheless, we conclude with the important proviso that negative reciprocity has not been shown to be predictive of longitudinal declines in marital quality and hence there is no certainty as to whether the capacity for cognitive editing is ultimately beneficial or harmful in marriage. In fact, cognitive editing during interaction may lead some wives to the post-interaction appraisal that they are not permitted to express their true feelings in the marriage, which could lead to declines in marital quality over time.

### Attributions for Marital Events

In the wake of clinical observation suggesting that explanatory or attributional variables were contributing to marital difficulties (e.g., Jacobson & Margolin, 1979), a large body of research emerged to address how happy and unhappy spouses differed in their explanations for events that occurred in their marriage (for reviews, see Bradbury & Fincham, 1990; Harvey, 1987). Results of this research indicate that, compared to nondistressed spouses, distressed spouses tend to make attributions that minimize the impact of positive relationship events ("He's being affectionate because things went well at work today") and that accentuate the impact of negative relationship events ("She's ignoring me in order to get back at me for coming home late last night"). There are also data to suggest that attributions of this sort are predictive of declines in marital quality over 12 months (Bradbury, 1990; Fincham & Bradbury, 1987), although this finding awaits replication in larger samples and across longer time periods.

When the contextual model is applied to the study of attributions, it becomes apparent that many aspects of attributional phenomena have yet to be studied in detail. Because the bulk of the extant research involves presenting spouses with relationship events (e.g., spouse behaviors, marital problems), asking them to rate those events along a series of attribution dimensions (e.g., locus, globality, blame), and correlating level of marital satisfaction with attribution judgments, it appears that our understanding of marital attributions pertains largely to their role as relatively stable elements within the distal context (cf. Baucom, Sayers, & Duhe, 1989; Holtzworth-Munroe & Jacobson, 1988). Although this is not insignificant, recognition of this limitation points to the possibility of asking different sorts of questions about attributions and investigating them as they are manifest in other components of the model.

One important question concerns whether attributions are related to behavior in interaction. Some studies show that attribution judgments made for a marital problem relate to behaviors (Bradbury & Fincham, 1991), sequences of behaviors (Bradbury & Fincham, 1988a), and specific affects (Bradbury, 1990) expressed in a discussion of that problem. However, it is not clear whether these findings result from actual attributions made in the processing stage (and possibly the transient proximal representation of attributions) or whether they result from a stable attributional style within the distal context (via paths g and c). One way to test these possibilities is to assess part of the processing stage by modifying the talk table described previously. This could be accomplished by requiring spouses to make an attributional judgment for each partner behavior (rather than a perceived impact judgment), and then examining the extent to which the on-line attribution judgments mediate the relation between the relatively stable attributions and the observed behavior.

A second question concerns whether the stable attribution judgments studied thus far, which appear to covary with stable affective judgments about the marriage, covary also with transient mood (via the proximal context and path h). (See

Forgas, this volume.) That is, are distressed spouses able to make benign attributions for partner behaviors when they are more optimistic about their marriage, or are such attributions simply not available in their cognitive repertoires? Likewise, do happily married spouses make less benign attributions as a result of their negative moods? In contrast to most research that has been done on attributions, addressing this question would require assessing attributions at times when spouses of varying levels of marital quality were experiencing positive and negative moods (either as they occur naturally or are manipulated experimentally). Determining that mood can influence attributions would lend support to path h in the model and would also raise questions about the circumstances that give rise to enhanced mood (e.g., paths e, f, and i). Establishing these links would be important, particularly in view of the possibility that transient affective reactions to the marriage may accumulate (through post-interaction appraisals, path j) and influence a spouse's pre-interaction appraisals (via path k), attributions about partner behavior (via path d), and subsequent judgments of marital satisfaction (via path h).

In sum, there is a substantial literature that documents the importance of attributions in marriage. In terms of the contextual model, however, it appears that only a limited range of attributional phenomena have been examined (specifically as distal judgments). We have attempted in this section to show how the model might be applied to reveal the nature of attributions in the processing stage and the proximal context, and to show how attributions in the distal context might change.

### Psychophysiological Analyses of Interaction

Despite a long tradition of research on the physiological concomitants of social processes (e.g., Shapiro & Schwartz, 1970), it is only recently that investigators have begun to explore this topic in the domain of marital interaction. The impetus for such research derives from data suggesting that emotional responding during interaction accounts for behavioral differences between distressed and non-distressed couples (Gottman, 1979), and from the assumption that physiological indicators covary with emotional expression.

Following an initial study by Notarius and Johnson (1982) that offered some support for this approach, Levenson and Gottman (1983) reported that 60% of the variance in spouse's judgments of marital quality could be accounted for with a measure representing the degree to which a husband's and wife's autonomic physiology (i.e., heart rate, strength of heart contractility, sweating, and general somatic activity) covaried over the course of a problem-solving interaction. Specifically, higher levels of physiological linkage between interacting spouses were related to lower levels of marital quality, which was interpreted to mean that distressed spouses tend to get trapped in destructive cycles of behavior. Of greater relevance to the present discussion is a subsequent report on this project

(Levenson & Gottman, 1985; see also Levenson, 1989) that assessed the degree to which physiological variables would predict declines in marital satisfaction over a 3-year period. Surprisingly, significant prediction was afforded not by the measure of physiological linkage but by the mean levels of the physiological variables, and all findings tended to point toward a common conclusion: Higher levels of arousal at the initial assessment were predictive of greater declines in marital quality over 3 years. A further surprise to emerge from these data was that decreases in satisfaction were a function of levels of arousal measured in the 5-minute baseline period before the interaction began, as the spouses sat silently facing each other in anticipation of their conflict.

The explanations that Levenson and Gottman (1985) offered for their findings are significant because they underscore the importance of certain components of the contextual model. The most obvious of these are pre-interaction appraisals, which were assessed indirectly in the baseline period and which apparently had a strong association with marital satisfaction—an element in the distal context—a few years later. As the authors noted, “most crucially, [spouses] knew that they would soon be interacting with each other” (p. 91) and, on the basis of Fig. 5.1 we might infer that this period of anticipation typically influences the nature of the interaction (via path i), which in turn influences post interaction appraisals (via path j), subsequent pre-interaction appraisals (via path k) and, eventually, the distal context and marital quality (directly via path h and indirectly via paths e and f).

A second component of the model highlighted by this study is the distal context as noted by Levenson and Gottman (1985): “We believe that [the factor accounting for our findings] is the couple’s past affective experience with interaction, compiled and summarized over the history of the relationship” (p. 91). This sets the stage for pre-interaction appraisals: “Over time, a couple develops a set of expectations about the prospect of interacting that is grounded in their past interactive experience” (p. 92), that in turn affect the interaction itself: “it is these pleasurable or unpleasurable expectations that account for the arousal differences we have observed. . . . These expectations are then carried over into the interactions themselves” (p. 92). We would refine this account by noting that individual spouses rather than couples develop sets of expectations, that the distal context is far more than a repository of memorable marital events (see next section), and that it is the *experience* of interaction (as represented in the proximal context and the post-interaction appraisals), probably more so than the interaction itself, that eventually produces change in marital quality.

Although the physiological data, if replicated, would point clearly to the value of incorporating events before (and, by implication, after) behavioral exchanges into a model of marital interaction, they would provide very little information about the utility of the contextual model for capturing specific events during the interaction itself. This is because variation in physiological data is related to the operation of many psychological processes—both affective and cognitive—so

that inferences about any one of them become tenuous. One way to alleviate this problem would involve assessing in experimental paradigms the physiological responding of individual spouses to discrete audiotaped or videotaped stimuli, such as negative statements made by the partner. Although this would yield a less ecologically relevant study, such a loss would be compensated for by the increase in experimental rigor and the corresponding ability to make relatively specific inferences about the contextual model.

For example, groups could be established on the basis of significant elements in the distal context (e.g., maritally distressed vs. nondistressed; depressed vs. nondepressed; chronic vs. acute history of marital conflict; adaptive vs. maladaptive attributional style), appraisals and the proximal context could be systematically manipulated (e.g., induce positive vs. negative mood), different classes of stimuli could be presented (e.g., positive vs. negative; delivered by spouse vs. stranger), and the effects of these factors on physiological responding and self-reports of behavioral responding could be ascertained. This would allow examination of a variety of questions. For example, are distressed spouses with a maladaptive attributional style more physiologically aroused in response to negative partner behavior than distressed spouses with a benign attributional style? Does conflict history contribute to increases or decreases in physiological responding to negative stimuli? Is distressed spouses’ physiological arousal to negative stimuli lessened if they are in a positive mood? The predictive value of such assessments on changes in marital quality over time could also be determined.

In sum, recent research on physiology in marital interaction highlights the role of pre-interaction appraisals and the distal context as essential factors in understanding changes in marital quality. We have observed that physiological applications to date permit few unambiguous inferences about other aspects of the contextual model, and have argued for complementary experimental research that allows for clearer investigation of the relation between maritally relevant stimuli and physiological responses to such stimuli, and of the many factors that moderate such responses.

### Personality and Marriage

A distinctive feature of behavioral and social-learning approaches to marriage is that they are often silent on the role that individual difference variables play in marital dysfunction. In contrast to the common view, that interpersonal events give rise to marital problems (and hence are targets for clinical change), is the competing view that interpersonal events are a manifestation of individual differences and that intrapersonal factors thus warrant close investigation as contributors to variance in marital quality. This latter perspective served as the impetus for a 45-year longitudinal investigation of 278 marriages reported by Kelly and Conley (1987; cf. Bentler & Newcomb, 1978). In this study data were collected



from spouses early in their relationships on several classes of variables, including spouses' personality (as rated by five acquaintances of each spouse), early social environment, and stressful life events, and couples were contacted intermittently thereafter to provide information on the status of their marriage.

For husbands who remained married, dissatisfaction was predicted by personality factors (e.g., higher levels of neuroticism, lower levels of impulse control, lower levels of agreeableness) and by higher levels of stressful events early in the marriage. Wives' later dissatisfaction was predicted by personality factors (e.g., high levels of neuroticism, lower levels of impulse control), by higher levels of stressful events early in the marriage, and by aspects of the early social environment (e.g., higher levels of instability and lower levels of emotional closeness in family of origin). Overall, a composite index of marital incompatibility was found to be a function of higher levels of husbands' and wives' neuroticism and of the husbands' lower level of impulse control. Kelly and Conley (1987) noted in their conclusion that

most recent research on marital compatibility has taken more or less of an operant behaviorist standpoint in which intrinsic individual differences have been ignored. . . . The present findings are strongly at variance with this trend. . . . Personality characteristics must be taken into account in a comprehensive analysis of marital interaction. Many of the disrupted patterns of communication and behavior exchange that recent researchers have noted in disturbed couples may be seen as the outgrowths of the personality characteristics of the partners. (p. 36)

We believe that these findings offer strong support for expanding the behavioral model in the way we have outlined in this chapter, particularly insofar as a model of interaction must address stable psychological variables in addition to marital quality. Indeed, if we view Kelly and Conley's (1987) data in terms of Watson and Clark's (1984) reconceptualization of neuroticism as *negative affectivity*, or a cross-situational propensity for certain individuals to experience negative feelings and distress, then it would be surprising if this were unrelated to marital dysfunction. This follows from the view that such individuals "tend to focus differentially on the negative aspects of themselves, other people, and the world in general" (Watson & Clark, 1984, pp. 481-482). In terms of the contextual model, this implies that negative affectivity, as an element in the distal context, may exert a pervasive influence upon pre-interaction appraisals, the proximal context, the processing of partner behavior, behavior itself, and post-interaction appraisals. Nevertheless, much variance in later marital quality remains unexplained after personality factors are taken into account, and important questions remain about the relative contributions of intrapersonal and interpersonal aspects of marital interaction, and their interrelation, to marital functioning.

Kelly and Conley's (1987) findings are notable not only because they identify classes of variables that may alter the course of marriage, but also because, in

conjunction with the contextual model, they suggest a range of mechanisms by which individual difference variables might operate. The most obvious process, that a spouse high in negative affectivity perceives partner behavior to be more negative than an individual low in negative affectivity, is conceptually quite similar to the notion of *sentiment override* that Weiss (1980) has introduced to the literature. By this term Weiss refers to how a spouse's global positive or negative feeling toward the partner leads to unconditional judgments about the partner that match the valence of that feeling. In terms of the contextual model, this implies that when a partner exhibits a behavior (via path b) the spouse will process that behavior largely as a function of feelings held toward the partner (via path g), independent of the nature of the partner behavior itself.

Although there are few data to our knowledge that document conclusively the operation and nature of sentiment override, we believe that sentiment override may prove to be an important aspect of marital interaction. However, we believe also that limiting any override process to only the affective evaluation that a spouse holds for the partner or marriage may be overly restrictive, because it seems quite likely that many other enduring psychological features of an individual will influence his or her reaction to marital events. Negative affectivity may be one such feature that predisposes a spouse to view partner behavior in an idiosyncratic fashion and, as the Kelly and Conley (1987) data suggest, such tendencies may accumulate to take their toll on marital quality. Depression may be another element in the distal context that affects the processing of partner behavior in the way suggested by Weiss' sentiment override. Kowalik and Gotlib (1987) have shown, for example, that depressed spouses are more likely than nondepressed spouses to rate their partner's behavior in interaction as less positive and more negative relative to ratings made by trained coders. This paradigm could be modified readily to determine whether other stable variables also impinge upon the processing of partner behavior and whether such an influence occurs above and beyond the effect of marital satisfaction.

In sum, whereas marital dysfunction has been understood commonly to be a result of maladaptive communication patterns, others have maintained that such patterns emerge from spouses' personalities, and they have provided data supporting this possibility. The contextual model suggests that neither perspective can provide a comprehensive treatment of marital dysfunction, particularly in view of likely reciprocal relations among interpersonal and intrapersonal variables. The notion that an individual difference factor might affect how partner behavior is processed was related to an expanded conception of sentiment override.

## SUMMARY AND OVERVIEW

Psychological inquiry into marriage has burgeoned in the past two decades, yielding an impressive body of research that is beginning to reveal the vast and

daunting complexity underlying marital interaction and marital dysfunction (see Fincham & Bradbury, 1990). A guiding premise of this chapter is that empirical growth in this domain has not been accompanied by explanatory theory, in part because models that capture the full range of marital phenomena have not been proposed and tested. As a preliminary step toward addressing this problem we outlined a model of marital interaction that transcends the well-documented association between overt behavior and marital quality by incorporating a variety of covert constructs that provide an affective and cognitive context within which the behavioral findings can be understood. The model specifies the arrangement of five broad classes of variables that appear essential for addressing how a given interaction between spouses unfolds and how it affects subsequent exchanges and judgments about the marriage. Specifically, a partner's *behavior* is subject to the spouse's *processing*, which in turn leads to that spouse's own behavioral response; the processing, which comprises a series of attentional, affective, and attributional steps, is influenced by both transient reactions to prior incidents in the interaction as represented in the *proximal context*, and by relatively stable psychological features of the processing spouse (e.g., marital satisfaction) as represented in the *distal context*. These four constructs are influenced by the thoughts and feelings, or *appraisals*, that spouses experience prior to an interaction and by the appraisals they make of their interactions after they are completed.

Description of the model was followed by its application to several recent developments in the study of marriage (i.e., longitudinal behavioral analyses of interaction, on-line judgments that spouses make of each other's behavior, attributions that spouses make for events in their relationship, psychophysiological analyses of interaction, and the role of personality in marriage), and for each of these developments examples demonstrated how the model could be used to identify new research directions. Our presentation was limited by its emphasis on breadth across marital domains rather than depth within any one domain, and the model itself awaits greater specification in a number of areas. These include the factors that determine when people begin and end their interactions, the important elements of the distal context and how they might be organized, the role of non-interactive events in marriage (e.g., work, leisure time), initial stages of marriages and mate selection, the nature of response selection following processing of a partner behavior, and how various components of the model are best assessed. Resolution of these and other issues is likely to emerge from a dialectic between requisite data (cf. Kurdek, 1991) and model refinement, and we particularly encourage investigators to address marriage longitudinally, so that the model may go beyond describing cross-sectional differences between distressed and nondistressed couples toward a stage of explaining how marriages falter and improve.

Independent of our particular analysis of marital interaction, we believe that now is an appropriate juncture in the psychological study of marriage for concep-

tual expansion, because so few of its facets are well understood and because so little is known about how a relationship that typically begins with so much promise can lead so frequently to despair and divorce. The behavioral findings that were instigated, in part, by the emphasis placed on interaction by Raush et al. (1974) have provided a strong foundation for such conceptual expansion, yet, whereas sophisticated observational research in the behavioral tradition could be undertaken with relatively straightforward hypotheses, the present mediational tradition is likely to prove much more challenging theoretically as greater attention is given to intrapersonal variables. We see this as a necessary task, however, because, as Watzlawick, Bavelas, and Jackson (1967, pp. 20-21) noted, "a phenomenon remains unexplainable as long as the range of observation is not wide enough to include the context in which the phenomenon occurs. Failure to realize the intricacies of the relationships between an event and the matrix in which it takes place, between an organism and its environment, either confronts the observer with something 'mysterious' or induces him [or her] to attribute to his [or her] object of study certain properties the object may not possess."

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