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Child Development and Marital Relations

Frank D. Fincham

This article examines aspects of the marital relationship and its assessment relevant to scholars of child development. The case for attending to marriage in child research is outlined before reviewing what is known about the construct of marital quality, behavior, emotional responding, and cognition in marriage. Practical recommendations are made for assessing each of these areas before arguing that the child's perspective of the marriage is critical for understanding children's behavior. Several limitations and promises of marital research for understanding children are also discussed.

INTRODUCTION

Since its inception in the 1920s, empirical research on marriage has yielded a great deal of information. However, this information is scattered across a variety of disparate sources, making it difficult for researchers outside of the marital field to access the picture of marriage painted by scientific research. In this article I highlight some aspects of the marital relationship and its assessment that may be useful to scholars of child development. Notwithstanding the importance of disrupted marital relationships for children, the focus is on intact marriages and on the contribution of psychological research to a scientific understanding of marriage.

The article is divided into five sections. In the first section I address briefly why child researchers should pay attention to marriage. The second section provides a quick tour of the marital literature that includes discussion of the most frequently studied construct in the marital literature, marital quality, and practical recommendations for selecting a measure of this construct; reviews of what is known about behavior (including affective behavior) and about cognition in marriage; and guidance on how to obtain indices of behavior and cognition in marriage. A critical question for researchers concerns the perspective from which to study marriage, an issue discussed in the third section. The fourth section highlights some further promises and problems of marital research relevant to child research before the main points and limitations of the article are summarized in the concluding section.

WHY CONSIDER THE MARITAL RELATIONSHIP WHEN STUDYING CHILDREN?

In this section I examine briefly why the marital relationship is important for understanding child devel-

opment, considering first conceptual and then empirical reasons for its importance. The section concludes by offering a perspective on research relating marital and child functioning that further supports examination of what the marital literature might have to offer child research.

Conceptual Perspectives

Several theoretical frameworks that have influenced the study of child development recognize the importance of the marital relationship. For example, psychoanalytic theory has viewed marital disruption as affecting the child's sense of security and the development of delinquency. In a similar vein, social learning theory suggests that children learn how to behave in relationships through observing parental interaction. Although recognizing its importance, the interparental relationship has not been central to such theories, and it is therefore not surprising that until recently the child development literature has paid relatively little attention to the marital relationship. Two developments have contributed to changing this circumstance over the last 15 years.

Personal relationships perspective. One important development has been the emergence of an interdisciplinary and explicitly proclaimed field of inquiry variously labeled the study of "personal," "intimate," or "close" relationships (see Fincham, 1995; for an overview of the field, see Hinde, 1997). Its emergence recognizes the centrality of relationships for understanding the individual, and the systematic study of personal relationships that now exists impinges on many subdisciplines in psychology. Hinde and Stevenson-Hinde (1987) explore the implications of this perspective for research on child development. It suffices to note that although the interplay between this

new field and the study of child development has been limited, its emergence has contributed to a zeitgeist propitious to the exploration of the marital relationship in research on children. Sroufe (1989, p. 104) succinctly summarizes the importance of this perspective in noting that "any understanding of individual behavior divorced from relationships will be seriously incomplete."

Family systems perspective. A closely related development has been the increased influence of a systems perspective in psychology. Although it emerged outside of the child development literature and was initially a developmental, the systems perspective has received increased attention from developmental psychologists over the last decade (for an overview, see Cox & Paley, 1997). According to this perspective, the child is embedded in a family system and can never be understood independently of that system (Sameroff, 1994). The implications for the study of child development are profound and have been explored by several scholars (e.g., Hinde, 1988; Kreppner & Lerner, 1989; Minuchin, 1988; Wagner & Reiss, 1995). For our purposes, we need only note that study of the child alone, or the parent-child relationship alone, is necessarily incomplete because a key element of the system, the marriage, is overlooked. The marriage constitutes part of the environment that may directly influence the child and provides a context that facilitates or impedes effective parenting and may thereby influence the child indirectly.

In sum, there are compelling conceptual reasons why study of the child should include consideration of the marital relationship. But is there any evidence to support these conceptual arguments?

Empirical Perspectives

Research relating marital processes to child development has its origins in both developmental psychology and clinical psychology. Within developmental psychology, the significance of marriage became apparent when the domain of parenting was expanded to include fathers; specifically, changes in mother-infant interaction in the presence of the father highlighted the impact of the marriage on the parent-infant relationship (Belsky, 1981). Reflecting this beginning, three emergent themes in the developmental literature are coparenting, or the ways in which spouses support or undermine each other as parents (for reviews see Gable, Belsky, & Crnic, 1992; Gable, Crnic, & Belsky, 1994); how marital processes relating to the transition to parenthood influence children (for reviews see Cowan & Cowan, 1990; Heinicke, 1995); and the impact of the marital relationship on the

parent-child relationship (for a review, see Erel & Burman, 1995).

Within clinical psychology, the observation that children with behavior problems often come from families characterized by marital disruption gave rise to attempts, beginning in the early 1940s, to document empirically an association between marital dysfunction and child adjustment. The subsequent literature has focused on the impact of disrupted marital relations (for reviews, see Amato, 1994; Amato & Keith, 1991; Emery & Kitzmann, 1995) and distressed, but intact, marriages on children (for reviews, see Cummings & Davies, 1994a; Fincham & Osborne, 1993; Jouriles, Farris, & McDonald, 1991; Reid & Crisafulli, 1990). Reflecting this origin, research on the impact of the marital relationship on children tends to have focused on negative aspects of marital and child functioning.

As a result of these developments, a diverse set of findings across a number of literatures now documents the importance of marriage for understanding child development. For example, Howes and Markman (1989) showed that premarital patterns of communication between partners predicted attachment security of their children when they were between 1 and 3 years of age. Similarly, Dickstein and Parke (1988) found that the quality of the marriage related to infants' social referencing. Finally, Christensen and Margolin (1988; see also Margolin, Christensen, & John, 1996) showed that in distressed families (maritally distressed with one conduct-disordered child), marital conflict increased the probability of parent-child conflict and sibling conflict, and Jouriles and Farris (1992) found that marital conflict influenced subsequent parent-son interaction. As reviews of the association between marital and child functioning are readily available, I highlight four themes that can be found in this work before offering an observation about this research that further supports the potential utility of marital research for investigating child development.

Increased differentiation. Regardless of child age or gender, it is clear that harmonious marriages are associated with more favorable child outcomes, and that troubled marriages are associated with more maladaptive child behaviors. However, progress in understanding the marital relationship-child development association has been facilitated by increased differentiation of the two elements in this association. Thus, researchers continue to identify the elements of marital functioning important for child development. For example, prospective studies show that interparental conflict may account for a large amount of the variance in child outcomes associated with parental

divorce (e.g., Cherlin et al., 1991), and specific elements of conflict (e.g., frequent, intense, physical, unresolved, child related) that influence children adversely are now known (see Cummings & Davies, 1994a). Similarly, progress is occurring in relating marital processes not simply to overall child adjustment but to specific elements of children's functioning, including attachment, academic performance, peer relationships, and emotional regulation. The question that is beginning to emerge is, What aspects of the marital relationship influence what aspects of children's functioning under what conditions?

Attention to context. The reference to "conditions" in the above question points to the fact that the impact of the marriage on child development is not uniform. Grych and Fincham (1990) argue that the context in which marital conflict occurs determines its impact on children. Consistent with this view are a number of empirical findings. A history of exposure to interparental conflict sensitizes children to such conflict, thereby magnifying its impact (e.g., J. S. Cummings, Pellegrini, Notarius, & Cummings, 1989; O'Brien, Margolin, John, & Krueger, 1991). In a similar vein, Katz and Gottman (1994) use the developmental context of the marriage to account for their finding that a withdrawn marital interaction style, but not a "hot" engaged style, is associated with child anger; they posit that withdrawn marriages may be closer to dissolution. Finally, the psychological context of the child influences his or her appraisal of interparental conflict and thereby its impact. Thus, for instance, if the child is in a negative mood at the time of exposure to the conflict, its impact is increased (Davies & Cummings, 1995).

The search for mechanism. The association between marital processes and child development raises the question of why this association exists. An important emerging theme, therefore, is the search for mechanisms whereby the marriage influences children. Two mechanisms have already been mentioned, an indirect effect that occurs via parenting, and a direct effect that occurs via children's appraisals of marital conflict. Indirect and direct effect mechanisms have generated some debate. For example, Fauber and Long (1991, p. 816) argued that "it is at the site of parenting practices that conflict has its effect on children," a view that was subsequently challenged (see Emery, Fincham, & Cummings, 1992). Recent studies that simultaneously estimate indirect and direct effects show that both occur (e.g., Harold, Fincham, Osborne, & Conger, 1997) and shift the question to one of determining how indirect and direct effects interact. Progress has also occurred in further delineating the critical parameters that produce indirect and di-

rect effects. For example, marital conflict about parenting appears to be particularly important for child outcomes (e.g., Jouriles, Murphy et al., 1991; McHale, Freitag, Crouter, & Bartko, 1991). Similarly, the child's concern for emotional security has been identified as a factor that regulates their response to marital conflict (Davies & Cummings, 1994, 1998). Despite such advances the search for mechanisms is still at a rudimentary stage.

Gender matters. Increasing attention is being devoted to parent and child gender in examining the marriage-child outcome association. Consistent with the finding that fathers make unique contributions to child development (Parke, 1990), there is evidence that the association between marital conflict and father-child relations provides information over and beyond that provided by the association between marital conflict and mother-child relations in understanding children's adjustment (Osborne & Fincham, 1996). Two further important gender-related findings have emerged. First, although both fathering and mothering are affected by marital conflict, father-child relations appear to be more vulnerable to marital distress than are mother-child relations (e.g., Belsky, Youngblade, Rovine, & Volling, 1991; Brody, Pellegrini, & Sigel, 1986). This could be because unhappy fathers withdraw from the marriage and from the child, or because fathering is a less scripted role in our society (Belsky, 1979). Second, cross-gender parent-child relations appear to be particularly affected, especially the father-daughter relationship (e.g., Gjerde, 1988; Kerig, Cowan, & Cowan, 1993). Such effects could arise because opposite-gender children remind the spouse of his or her partner, and feelings about the partner may therefore spill over into the relationship with the opposite-gender child (see Erel & Burman, 1995).

A Meta-analytic Perspective

The purpose of highlighting the above empirical perspectives is not only to emphasize the importance of the marital relationship for understanding children, but also to impose some order on the "web of confusion that exists in identifying the child outcomes associated with marital distress" (Katz & Gottman, 1994, p. 71). This statement points to an important feature of the relevant literatures that is dramatically highlighted by recent meta-analyses.

Whether examining the association between interparental conflict and child adjustment in two-parent families (Reid & Crisafulli, 1990), the effects of divorce on children (Amato & Keith, 1991), or the association between marital functioning and parent-child

relationships (Erel & Burman, 1995), meta-analyses yield small effect sizes, especially for methodologically sophisticated studies. These effect sizes appear to be a function of variability of findings. This is dramatically illustrated in Erel and Burman's (1995) meta-analysis. These authors were not even able to test adequately whether relevant variables moderated the association between the marital and parent-child relationships owing to the heterogeneity of effect sizes within categories of the moderator variables (e.g., operationalizations of marital quality). On the one hand, variability in findings makes the emergence of any replicable associations noteworthy. On the other hand, it raises the question of why such variability exists.

Besides methodological quality, two related factors help explain variable findings. The first is a lack of clarity regarding basic constructs like marital quality. This occurs when the same term, or very similar terms, are used for different constructs, often resulting in the proliferation of measures that are treated as interchangeable or comparable even though they may actually assess different constructs. The second factor that helps account for variable findings is the use of global constructs that may have outlived their usefulness. Just as the development of a taxonomic system requires the development of new categories and of subcategories to accommodate anomalous results, marital and family researchers need to increasingly differentiate and refine constructs. The importance of such conceptual development is emphasized by the fact that even the most sophisticated statistical analyses cannot clarify ambiguous constructs.

Familiarity with findings and issues in marital research has the potential to facilitate greater precision in marital assessment and thereby foster more complete understanding of the marital relationship-child development association. Consequently, in the remainder of this article I will highlight some features of the marital research landscape for child researchers. Lest it appear otherwise, there is no implication that the cartography offered is complete.

THE MARITAL LANDSCAPE: A BRIEF TOUR

What do I need to know about the marital relationship to understand child development? Although this question seems quite reasonable, it cannot easily be answered. This is because the question is too global; what you need to know will depend on your research question. So, rather than attempt to answer such a global question, it is more useful to develop an awareness of basic findings, fundamental issues,

and recent developments in the study of marriage. Such an awareness is likely to prove fruitful regardless of the child researcher's specific research interests.

Perhaps the most useful starting point in developing one's awareness is to note that it is quite common for child researchers interested in the marital relationship to use a single, overall index to characterize the marriage. This is understandable because the primary goal is to study the child while acknowledging the importance of the marriage. The pragmatic question that usually arises is, Can you recommend a marital measure, preferably one that is short and quick? Answering this question presupposes knowledge of the best single construct to characterize a marriage.

Marital Quality Is Marital Quality Is Marital Quality: Or Is It?

The most frequently studied construct in the marital literature is marital quality, or what has been variously labeled marital adjustment, marital satisfaction, success, companionship, consensus, or some synonym reflecting the quality of the marriage. This circumstance reflects the applied origins of research on marriage and the subsequent focus on understanding the causes and consequences of marital distress and marital breakdown.¹ Not surprisingly, marital quality is often the construct investigated in child-focused research. This approach is reasonable, but immediately leads us into a vast, and often confusing, marital literature (see Glenn, 1990; Spanier & Lewis, 1980). It therefore behooves us to examine the construct of marital quality more closely.

How Can We Best Conceptualize (and Measure) Global Marital Quality?

A large smorgasbord of measures is available to the researcher interested in obtaining an overall index of marital quality. This cornucopia of marital quality measures reflects lack of clarity about the construct of marital quality, leading some researchers to call for its abandonment (Lively, 1969; Trost, 1985). There is no need for such radical action, as a widely held view is that the most commonly used measures of marital quality, such as the Marital Adjustment Test (MAT; Locke & Wallace, 1959) and its successor,

1. Marital quality and marital stability are two distinct constructs that have given rise to separate literatures. The focus in this article is on marital quality (for a review of research on marital stability see White, 1990).

the Dyadic Adjustment Scale (DAS; Spanier, 1976), are quite adequate when a single, overall index of marital quality is needed. Although Spanier (1976) found evidence for four factors in the DAS—dyadic satisfaction, dyadic cohesion, dyadic consensus, and affectional expression—these factors have not always been replicated (e.g., Sharpley & Cross, 1982), and both the disproportionate sampling and differing item formats across factors suggest that the factors are artifactual (see Norton, 1983). Not surprisingly, one leading researcher observed that “different operations designed to measure marital satisfaction converge and form one dimension” (Gottman, 1979, p. 5), and formulas for converting MAT scores into DAS scores and vice versa have been derived empirically (Crane, Allgood, Larson, & Griffin, 1990).

In contrast, other scholars have argued for a reconceptualization of marital quality in terms of overall evaluative judgments of the marriage (e.g., Fincham & Bradbury, 1987a; Huston, McHale, & Crouther, 1986; Norton, 1983). The reason follows from the observation that the heterogeneous content included in omnibus measures such as the MAT and DAS, which typically comprise items ranging from reports of specific behaviors (description) to inferences about the marriage (evaluative judgments), makes the interpretation of an overall score unclear (see Nye & MacDougall, 1959). Thus, for example, if MAT scores correlate with child math performance, this begs the question of what precisely correlates with math performance. Is it the spouse’s general sentiment about the marriage, some or all of the behaviors reported on the MAT, or both?

An important advantage of viewing marital quality in terms of overall evaluative judgments is that the construct and the domain of variables to which it relates are clearly specified a priori, circumstances that are seldom found in marital research, despite their psychometric importance. A practical advantage of this view is that it allows for the use of very brief measures to assess what is, after all, a more limited view of marital quality. For example, the six item Quality Marriage Index (QMI; Norton, 1983) and the three item Kansas Marital Satisfaction Scale (KMSS; Schumm et al., 1986) provide simple, unconfounded indices of how spouses evaluate their marriage (for empirical comparison of the index yielded by the QMI and an omnibus marital quality measure, the DAS, see Heyman, Sayers, & Bellack, 1994).²

2. It has also been argued that the semantic differential, which is used to assess the conative meaning of concepts and consists of a series of bipolar adjective rating scales (e.g., “good-bad,” “pleasant-unpleasant”), can be used to measure marital quality. Numerous studies by Osgood, Suci, and Tannenbaum

It is important to note that the arguments offered by those who favor conceptualizing marital quality as overall evaluative judgments are not for a unidimensional construct of marital quality per se. Rather, because most existing omnibus measures such as the MAT and DAS are already viewed as global, unidimensional measures, the goal of this approach is to ensure conceptual clarity.

Where does this leave the investigator who is not expert in measures of marital quality? Rather than seek a single right answer, it is necessary to be aware of the merits of each position. After all, no measure is valid in any absolute sense—it is only valid for the purpose to which it is put. So, for example, if the purpose is simply to identify groups of distressed and nondistressed spouses for the purpose of documenting differences in observed behavior, the heterogeneity of items in the marital quality measure is less problematic. Matters become much more problematic when obtaining additional self-reports of the marriage. This is because the heterogeneity of items in the marital quality measure can lead to overlap with the other marital measures, resulting in tautologous findings. For example, Banmen and Vogel (1985) found a significant association between communication (e.g., Marital Communication Inventory; Bienvenu, 1970: “Do the two of you argue a lot over money?” “Do you and your and your spouse engage in outside activities together?”) and marital quality (DAS; Spanier, 1976: “Indicate the extent of agreement or disagreement between you and your partner on: handling family finances,” “Do you and your mate engage in outside interests together”). The resulting tautological association hinders theory construction and affects the credibility of research findings (for further discussion, see Fincham & Bradbury, 1987a).

Such problems are not altogether avoided by the use of measures other than self-report. For example, relating observation of couple interactions to overall marital quality is still subject to the criticism that any association found simply reflects the fact that spouses engage in the type of behaviors that they endorse on the marital quality measure. In others words, spouses do what they say they do.

For the child researcher, the problem of content

(1957) have shown that evaluative, potency, and activity dimensions underlie the meaning of concepts, with the evaluative dimension usually accounting for the largest amount of variability among scale items. Thus, ratings of the marriage on bipolar adjective scales reflecting the evaluative dimension yield a parsimonious operationalization of marital quality (three items are usually sufficient to assess dimensions of a concept; see Osgood et al., 1957).

overlap is most likely to be apparent when an omnibus measure of marital quality is one of several marital measures used to predict child outcome. The problem may manifest itself at the statistical level by producing multicollinearity among the predictor variables. However, even if it does not produce statistical problems, the conceptual difficulty in interpreting the results can hinder theory construction because omnibus marital quality measures tell us only that "something" assessed by them (e.g., evaluations, beliefs, reported behaviors) is associated with child development, without specifying what the "something" is. The significance of these problems needs to be weighed against the considerable data that exist for omnibus measures such as the MAT and DAS.

Is Marital Quality Unidimensional?

Some scholars believe that "marital quality may not be a unitary construct and will not be accurately reflected by a single-outcome measure of marital happiness" (Beach & O'Leary, 1985, p. 1063). As a result, marital quality has also been conceptualized as a multidimensional construct, and there are several multidimensional measures of marital quality available. Perhaps the most psychometrically sophisticated is the Marital Satisfaction Inventory (MSI; Snyder, 1979, 1981). This measure includes a validity scale that attempts to provide a control for socially desirable responses, a scale comprising items that tap the individual's overall dissatisfaction with the marriage (global distress), and nine scales assessing different dimensions of marital interaction (e.g., time together, disagreement about finances, sexual dissatisfaction). One advantage of this measure is that it offers a profile of marital functioning along various dimensions much like the MMPI offers a profile of individual functioning. It therefore allows for the derivation of marital types (profiles) based on a comprehensive assessment of the relationship that can then be examined in relation to other constructs (e.g., child outcomes). A further advantage of this measure for the child researcher is that it includes subscales assessing dissatisfaction with children and conflict over childrearing.

Notwithstanding their advantages, multidimensional inventories tend to be used less frequently than the unidimensional measures. Why? One possible reason is their length (e.g., the MSI has 280 items). Another potential reason is that global evaluations of the marriage appear to play a central role in these measures at both the conceptual level and in terms of data. In the MSI, one of the dimensions, global distress, which comprises subjective evaluation of the

marriage (e.g., "Frankly, our marriage has not been successful"), is granted a privileged conceptual status because it is used as a criterion against which the remaining dimensions are validated. At the empirical level, even though Kurdek (1992a) replicated the four-factor nature of the DAS in a recent study, he also found that only the dyadic satisfaction subscale, a scale comprising subjective evaluations of the relationship, consistently explained significant, unique variation in other measures of interest. Not surprisingly, short (six and seven item) versions of the DAS have been proposed as substitutes for the full scale (Hunsley, Pinsent, Lefebvre, James-Tanner, & Vito, 1995; Sharpley & Cross, 1982). These observations make it incumbent on those who favor a multidimensional view to demonstrate clearly its practical advantages, given current measurement technology. Until this is done, child researchers seeking a single brief measure of marital quality are likely to find a unidimensional, evaluative measure as good as a longer, multidimensional measure of marital quality for most purposes.

A recent development that may facilitate use of multidimensional measures is the recognition that marital health is not necessarily the opposite of marital distress (e.g., Weiss & Heyman, 1997). This raises the possibility that marriages can be assessed in terms of independent positive and negative dimensions rather than in terms of a single bipolar (positive-negative) dimension. Although positive and negative dimensions were found some time ago to underpin marital transactions (e.g., Orden & Bradburn, 1968), this idea has only recently been extended to overall evaluations of the marriage at the theoretical (Fincham, Beach, & Kemp-Fincham, 1997) and empirical levels (Crohan, 1996; Fincham & Linfield, 1997). Thus, the six item Positive and Negative Quality in Marriage Scale (Fincham & Linfield, 1997) comprises evaluative judgments of the spouse/marriage that reflect separate, though moderately associated, positive and negative dimensions. This is important because these dimensions accounted for variance in correlates of marital quality (behaviors and attributions) over and beyond that accounted for by a traditional omnibus measure, the MAT.

One implication of this bidimensional view of marital quality for child research is that it may predict differential child outcomes that do not emerge for unidimensional measures. For example, compared to "indifferent" wives (low negative and low positive evaluations), "ambivalent" wives (high positive and high negative evaluations) reported relatively more negative than positive behaviors performed by themselves and their spouses even though

the two groups did not differ in MAT scores (Fincham & Linfield, 1997). The bidimensional view also raises the question of whether similar assessment can be applied to parent-child relations and, if so, the extent to which marital and child assessments produce corresponding results.

In any event, the nonexpert may wonder what conclusion to draw. Is marital quality unidimensional or multidimensional? This is a reasonable question, but it is like asking whether tables are rectangular or circular. Some are rectangular, some are circular, and some are neither. Yet the indeterminate shape does not hinder our communicating about tables. What matters most is that we be clear about what table is being referred to in any particular case and understand the properties of tables with different shapes (e.g., rectangular tables have corners, whereas circular ones do not). Stated in psychometric terms, the meaning of "marital quality" depends on establishing "a network of relationships that would be expected on the basis of sensible theories" (Nunnally, 1978, p. 103). Because they tend not to be theoretically derived, marital quality measures rarely attain this ideal. However, this does not mean that they lack an empirically derived network of relations. In this regard, considerably more is known about the correlates of standard, unidimensional measures such as the DAS and MAT than any other measures of marital quality.

Conclusions

At the most pragmatic level, some broad generalizations are possible. If the goals are to have an overall index of marital quality and to assess other specific areas of marital functioning, it is probably best to assess overall evaluative judgments of the marriage, owing to the potential problem of item overlap among marital measures. A further advantage is the potential to obtain positive and negative evaluative dimensions of the marriage using a very brief assessment. If, however, the goal is to have a single index of overall marital quality with no other assessment of the marriage, then use of standard measures such as the MAT and DAS will usually be considered adequate and perhaps even advantageous because they sample various different types of marital content (evaluations, behaviors, and so forth). This possible advantage needs to be weighed against the brevity and clarity of interpretation offered by measures limited to evaluative judgments of the marriage and continuing concern about the MAT and DAS among many marital researchers (see Eddy, Heyman, & Weiss, 1991; Heyman et al., 1994).

It is, however, critical to recognize that use of global indices of marital quality provides a limited understanding of the link between the marital relationship and child development. Such measures, and the viewpoints they reflect, are useful in first-generation research that documents a link between the marital relationship and child outcome. However, even here, measures such as the MAT and DAS may be too global to detect optimally associations between marital and child variables. As noted earlier, a more reliable marital discord-child adjustment association emerged by replacing omnibus measures of marital quality with assessments of overt marital conflict and then with measures of specific marital conflict dimensions (for an account, see Fincham & Osborne, 1993). Kerig (1996) provides the most comprehensive spouse-report measure of marital conflict for child researchers and documents associations between its dimensions and the adjustment of 7- to 11-year-old children.

In any event, documenting an association between marital and child variables begs the question of why the association exists. Most early marital research has been limited in this way because discovery of the correlates of marital quality was accompanied by "little or no explanation of why the correlations exist" (Rausch, Barry, Hertel, & Swain, 1974, p. 4). To understand what mechanisms might link marital quality to child development requires a more differentiated assessment of the marriage. In the next two sections of the article, therefore, I will highlight findings from marital research that extend beyond the assessment of overall marital quality.

What Do We Know about Spouse Behavior?

Until the 1960s, most marital research consisted of large-scale surveys on the correlates of marital quality (for a review, see Barry, 1970). Dissatisfaction with the reliance on self-report led to a focus on overt spouse behavior and ushered in a behavioral tradition of research on marriage.

Observing Spouse Behavior: An Overview

Most observational research on marriage has been informed by the view that "Distress results from couples' aversive and ineffectual response to conflict" (Koerner & Jacobson, 1994, p. 208). Our knowledge of spousal behavior in marriage therefore comes largely from studies in which couples are asked to engage in problem-solving discussions during visits to the researcher's laboratory (for a review of early work,

see Schaap, 1984; later work is reviewed by Gottman, 1994, and Weiss & Heyman, 1990, 1997).³

The focus on conflict behaviors associated with marital distress may appear to limit the utility of observational research on marriage for child researchers interested in identifying marital behaviors that promote adaptive functioning in children. However, most children are exposed to interparental conflict and do not appear to be adversely affected by the experience. In fact, they may even benefit from the experience (e.g., by learning conflict resolution skills). It is therefore important to identify the features of marital conflict that are constructive and that are destructive for children. Relative to the identification of destructive conflict behaviors, little is known about marital conflict behavior that promotes healthy child development. In an effort to facilitate greater understanding of the impact of marital behaviors on children, several findings are summarized before examining the assessment of marital behavior. For ease of presentation, findings are presented in terms of "negative" and "positive" spouse behavior: negative behavior includes negative affect (e.g., negative tone of voice, specific affects such as whining, anger, and so on) and negative verbal behavior (e.g., criticism, blaming, complaining), and positive behavior includes both positive affective (e.g., smiling, specific affects such as humor, affection, and so on) and positive verbal behaviors (e.g., approval, agreement).

First, as might be expected, distressed couples tend to display more negative behaviors than nondistressed couples and, less reliably, fewer positive behaviors. Second, distressed spouses are more likely to reciprocate negative partner behaviors than are satisfied spouses. In fact, negative reciprocity is considered the most important and reliable signature of a distressed marriage. Third, nonverbal behavior, which is often used as an index of emotion, accounts for more variance in marital satisfaction than verbal behavior and, unlike verbal behavior, does not change when spouses are asked to intentionally fake good and bad marriages (Vincent, Friedman, Nugent, & Messerly, 1979). It is therefore a more useful indicator of marital distress than verbal behavior. Fourth, compared to nondistressed couples, the inter-

actions of distressed couples show greater structure or patterning; that is, the sequences of behavior that occur during interactions are more predictable in distressed marriages and are often dominated by negative, and usually escalating, chains of negative behavior that are difficult for the couple to stop (Gottman, 1994, describes negativity in distressed marriages as an "absorbing state"). Fifth, an emerging literature on physically aggressive couples suggests that negative behavior, including behavioral reciprocity, is more pronounced in these couples. Finally, negative spouse behavior predicts decreases in marital satisfaction over time and later marital dissolution (for a review of longitudinal findings, see Karney & Bradbury, 1995).

These findings may seem like common sense. However, it need not have turned out this way (e.g., distressed and nondistressed spouses may have differed only in their evaluations of behaviors and not the actual behaviors exchanged), and some of the findings contradict earlier hypotheses about marriage. For example, not long ago it was believed that satisfied couples were characterized by a quid pro quo principle (Lederer & Jackson, 1968), but research showed that it is dissatisfied spouses who reciprocate (negative) partner behavior.

Although the observations reported above are among the most robust findings, there are many others that emerge across studies. Given the large body of research on observed marital behavior, it is easy to become entangled in a myriad of findings about very specific behaviors or behavioral sequences. Mastery of this literature can nonetheless pay handsome dividends in helping child researchers identify more precisely marital conflict behavior that is important for understanding child development. However, as with marital quality, the child researcher may ask, Can you recommend an overall index of marital behavior?

One way to summarize the extensive literature on marital behavior is in terms of a simple ratio. For happy couples, the ratio of agreements or positive behaviors to disagreements or negative behaviors is greater than one, and for unhappy couples it is less than one. In fact, Gottman (1993; see also Gottman, 1994) identifies this ratio more precisely for what he calls regulated and nonregulated couples. These couples were identified using the cumulative difference between positive and negative behaviors to plot a graph for each spouse as a speaker during a conversation. Regulated couples (speaker slopes positive for both spouses), compared to nonregulated (all other patterns), were more satisfied in their marriage and less likely to divorce. Spouses in regulated couples

3. A question that arises is whether such laboratory observed interactions are similar to those that occur in naturalistic settings. Although surprisingly little attention has been given to this issue, a comparison of conversations in the home and in the laboratory found that, if anything, laboratory data tend to yield a more conservative test of differences between distressed and nondistressed spouses (Gottman, 1979). This makes the set of replicable findings that has emerged across a variety of laboratories all the more impressive.

displayed a ratio of positive to negative problem-solving behaviors and of positive to negative affect of approximately 5:1, compared to approximately 1:1 for spouses in nonregulated couples. In a similar vein, Matthews, Wickrama, and Conger (1996) showed that dyadic hostility relative to warmth was associated with marital instability.

Interestingly, the above findings correspond with those of two early studies on reported frequency of sexual intercourse and of marital arguments (Howard & Dawes, 1976; Thornton, 1977). Both showed that the *relative* frequency of sexual intercourse and arguments, rather than their base rates, predicted marital satisfaction. Given the converging evidence on the importance of the relative frequency of positive and negative spouse behavior, how does one go about coding marital interaction to obtain such an index?

Before answering this question, it is important to note that some researchers have recently questioned the emphasis given conflict behavior in the generation of marital distress. For example, Bradbury and colleagues (Bradbury, Cohan, & Karney, in press; Karney & Bradbury, 1995) stress the importance of placing marital conflict in a broader context, pointing out that, in the absence of external stressors, problem-solving skills may have little impact on the marriage, and that behavioral deficits in nonconflictual domains may lead to or exacerbate mismanaged conflict. Similarly, Cutrona (1996) notes that because marital interaction research has used tasks that maximize the likelihood of conflict and minimize the likelihood of supportive spouse behavior, it may have underestimated the role of spousal support in marriage.

Recent research has sought to address this lacuna by observing spouse behavior in interactions where one spouse talks about a personal issue he or she would like to change and the other is asked to respond as he or she normally would. Although limited in number, studies using this task have shown that supportive spouse behavior is related to marital satisfaction, is more important than negative behavior in determining the perceived supportiveness of an interaction, and, among newlyweds, wives' supportive behavior predicts marital stress 12 months later while controlling for initial marital stress and depression (Cutrona, 1996; Cutrona & Suhr, 1992, 1994; Davila, Bradbury, Cohan, & Tochluk, in press). In their study of newlyweds, Pasch and Bradbury (in press) showed that although behavior exhibited during conflict and support tasks tended to covary, their shared variance was small (<20%), that wives' supportive behaviors predicted marital deterioration 24 months

later independently of either partner's conflict behaviors, and that supportive behaviors moderated the association between conflict behavior and later marital deterioration, with poor support and conflict skills leading to greater risk of marital deterioration.⁴

Evidence is thus emerging for the importance of understanding supportive marital behavior in its own right. However, there has been no research on the impact of spouses' supportive behavior on child development. This is an important omission, as supportive behavior between spouses may moderate the association between marital conflict and parenting. In a similar vein, children's exposure to such supportive behaviors may have a direct impact on their development. Thus, in turning to consider how to code marital interaction, attention is given to coding systems for conflict and for supportive spouse behaviors.

Obtaining Indices of Marital Interaction

Relatively few studies relating marital functioning to child development include indices of observed spouse behavior. This is unfortunate, as Katz and Gottman (1993, 1994) showed that observed marital interaction style, but not self-reported level of marital satisfaction, predicted children's concurrent and future adjustment. In view of the paucity of observational data, little information exists on the merits of particular marital coding systems for understanding child development. In this section I will therefore provide an introduction to coding marital interaction in an attempt to facilitate greater use of observed marital behavior in research on child development.

Marital coding systems vary in the types of coding units that are used, the level of inference required, and the relative independence of behavioral codes (Floyd, 1989). A first decision in observing marriage is whether to engage in micro-analytic or macro-

4. The results described are consistent with the documented association between self-reported spousal support and marital satisfaction (e.g., Aticelli & Antonucci, 1994; Julien & Markman, 1991) and with the theoretical status accorded support in relationship maintenance (e.g., Barbee, 1990). Spouse support is hypothesized to help prevent partners from withdrawing from each other in the face of stress (e.g., asking partner what is the matter; see Lehman, Lang, Wortman, & Sorenson, 1989) and to help break up patterns of escalation that might otherwise be detrimental for the couple (e.g., admitting that one was wrong, asking for more information about a partner criticism). A history of supportive responses sustains trust in the partner and so may inhibit the formation of negative responsibility attributions for occasional lapses in partner behavior that may in turn feed negative interactions (Bradbury, Beach, Fincham, & Nelson, 1996) and lead to deterioration in marital satisfaction over time.

analytic ("molar") coding. When compared to micro-analytic systems, macro-analytic systems are characterized by large coding units, nonindependent dimensions of behavior, and higher levels of inference by the coder (the code is equivalent to the concept investigated reflecting use of an implicit measurement theory to link the concept and observed behaviors). The advantages of micro-analytic systems, which use small coding units, is that they force greater specification of the relation between concepts (e.g., power) and behaviors (e.g., interruption), permit sequential analysis of behaviors, and often contain sufficient information to allow the derivation of new concepts to test hypotheses developed after the coding is completed. The advantages of macro-analytic systems include reduced coding time and good face validity (for excellent discussions of macro-versus micro-coding, see Bell & Bell, 1989; Floyd, 1989).

Most marital research findings are based on the use of micro-analytic systems, and the number of coding systems available provides great flexibility in tailoring systems to meet specific needs (for a comprehensive description of systems, see Markman & Notarius, 1987). Although a coding system necessarily reflects a theory (e.g., in choice of what to code; philosophers of science remind us that observations are only given meaning by a theory; see Hempel, 1954), marital researchers have avoided explicit theory, believing instead that "a solid data base is a prerequisite to theory development [and] can best be accomplished by descriptive studies which focus on observable behavior" (Markman, Notarius, Stephen, & Smith, 1981, p. 236). Perhaps as a result, commonly used systems tend to include a large number of codes (e.g., 34 in the Marital Interaction Coding System [MICS]; Heyman, Weiss, & Eddy, 1995), and there is no standard procedure for forming smaller numbers of categories for analysis, making comparisons across studies difficult (e.g., at least 15 different operationalizations of spousal negativity have been used with the MICS; see Heyman, Eddy, Weiss, & Vivian, 1995).

Marital coding systems differ in the extent to which they provide a picture of emotion in marriage. The Couples Interaction Scoring System (CISS; Gottman, 1979; Notarius & Markman, 1981) explicitly distinguishes the description of an utterance from its function in the interaction by coding separately the content of the message, its affect, and its context (non-verbal behavior of the listener). Because it is so labor intensive to use (approximately 28 hr to code 1 hr of interaction), it has been revised (Rapid CISS; Gottman, Kahen, & Goldstein, 1996) to include only the

13 speaker and nine listener codes (of the original 65 codes) that maximally discriminate between distressed and nondistressed couples. More recently, the Specific Affect Coding System (SPAFF; Gottman, McCoy, Coan, & Collier, 1996) was developed to code specific positive (humor, affection/caring, interest/curiosity, joy) and negative (anger, whining, disgust, sadness, fear) affect (for discussion of assessing affect in marriage, see Bradbury & Fincham, 1987).

Although these marital coding systems can be scored on an underlying positive-negative dimension, their use requires considerable investment of resources. One of the least demanding coding systems for the purpose at hand is the Verbal Tactics Coding Scheme (VTCS; Sillars, 1982; Sillars, Coletti, Parry, & Rogers, 1982). This system can be used without generating transcripts and uses speaking turns as the unit of analysis to which one of three tactics is assigned. Integrative (verbally cooperative behaviors) and distributive (competitive or individualistic behaviors) tactics have been used successfully as measures of positive and negative spouse behavior, respectively. However, the ease of using only such broad categories comes with a price; whenever codes are reduced to form larger categories (e.g., as is often necessary to study behavioral sequences), the coding system yields a less detailed view of the interaction.

Although untested, a molar coding system could also be used to create an index of the relative positivity versus negativity of an interaction. Markman and colleagues have devised the Interactional Dimensions Coding System (IDCS; Julien, Markman, & Lindahl, 1989), which assesses five negative dimensions (conflict, dominance, withdrawal, denial, negative affect) and four positive dimensions (communication skills, support-validation, problem solving, positive affect). Two dyadic dimensions are also included—negative and positive escalation. The ratings yielded on the positive and negative dimensions could presumably be used in place of frequency of micro codes to assess the relative positivity versus negativity of an interaction. A similar strategy could be used with the dyadic dimensions, yielding a second index. In addition to their being untested, molar coding systems are in the early stages of development in marital research, and therefore much less is known about them.

Coding of spouse support behavior is also at an early stage of development. Perhaps the most promising coding system has been developed by Bradbury and Pasch (1996). This system recognizes that the numerous hypothesized dimensions of supportive behavior have questionable discriminant validity, and therefore includes only a small number of codes. A

further advantage of this system is that it provides information on helper and helpee behavior. Helper codes distinguish two major forms of support (instrumental and emotional), categorize all other forms in a single ("other") category, and identify negative behaviors. Helpee behaviors are coded as either positive or negative, and both helper and helpee can be coded as exhibiting neutral behavior or being off task. Again, ease of use trades off against the more detailed support codes offered by other systems. For example, the Social Support Behavior Code (SSBC; Cutrona & Suhr, 1992) yields five categories of helper support behavior (emotional, esteem, informational, tangible, and network support).

Although it is important to observe supportive spouse behavior, it is now generally accepted that the amount of support an individual receives does not relate to individual outcomes (e.g., depressive symptoms) or measures of marital distress as highly as do measures of "perceived support" (Wethington & Kessler, 1986; see Beach, Fincham, Katz, & Bradbury, 1996). This observation, together with the fact that the statistical variability shared by behaviors observed in problem-solving discussions and measures of marital quality is relatively small (approximately 25%; Weiss & Heyman, 1997), prompts the question of whether it might be more parsimonious to use spouse reports as an index of behavior rather than to invest the time needed to observe and code spouse behavior.

Isn't there an easier way: What about spouse reports of partner behavior and affective responses? Although the manner in which reports of behaviors are obtained can increase their accuracy (see Robins, 1990), the marital literature provides a case study in the danger of using self-report to index spouse behavior. Specifically, spouses have been employed as observers of behavior by being asked to complete a lengthy checklist of daily partner behaviors (e.g., Wills, Weiss, & Patterson, 1974; for reviews, see Bradbury & Fincham, 1987; Weiss & Heyman, 1990). Although initially accepted as reflections of spouse behavior, the epistemological status of these reports changed when both partners' reports on the same spouse's behavior showed that average agreement across various behaviors was about 50%, with agreement decreasing for behaviors described in more molar terms (Christensen, Sullaway, & King, 1983). Moreover, specifically training spouses to keep track of daily behaviors did not appreciably increase their agreement (average agreement was 61% in Elwood & Jacobson, 1982).

Although their status as veridical reports of partner behavior changed to that of "perceptions" (Chris-

tensen et al., 1983), it is interesting to note that some of the results obtained for spouse reports of partner behavior are remarkably consistent with observed couple interactions. For example, negative behaviors appear to more consistently distinguish couples classified as satisfied versus dissatisfied on traditional measures of marital quality. Such consistency suggests that spouse beliefs and cognitions in general may be useful in understanding marriage, a topic examined in the next section. But are there circumstances under which we can use self-reports of marital behavior? Yes. Self-reported behavior can sometimes be the only index of behavior available, and there are limited conditions under which it appears to be an accurate reflection of overt behavior.

Behaviors that are not open to public scrutiny (e.g., sexual intercourse, physical aggression), or that occur infrequently or over long periods of time, can usually only be studied via self-report. Thus, for example, physical aggression/violence in marriage has been studied exclusively via self-report (Arias & Pape, 1994). Although both aggression/violence and marital quality tend to be related, they should be clearly distinguished. Margolin (1990) demonstrated how measures of marital quality and marital aggression could be combined to provide a more differentiated picture of marital distress, and contemporary research on marital violence attempts to disentangle the effects of violence and low marital quality by including violent/dissatisfied and nonviolent/dissatisfied groups in their research designs (see Holtzworth-Munroe, Smultzer, Bates, & Sandin, 1996).

Aggression between spouses is particularly relevant to child researchers, as such behavior has been shown to have an important impact on children and to be associated with aggression toward them (see Davies & Cummings, 1994; O'Leary & Jouriles, 1994). Marital aggression/violence has been measured largely through use of the Conflict Tactics Scale (CTS; Straus, 1979, 1990; see also Shafer, 1996). This scale yields measures of reasoning, verbal aggression, and physical aggression/violence and has a parallel version for assessing parent-child relationships. Although the subject of intense criticism (e.g., Margolin, 1987; Schumm & Bagarozzi, 1989), the CTS has been used in over 400 studies and has provided important comparative information on marital and parent-child aggression/violence across historical time (e.g., Straus & Gelles, 1986).

A new version of the CTS is now available (Straus, Hamby, Boney-McCoy, & Sugarman, 1996) that augments existing scales, introduces new scales (sexual coercion, physical injury from assaults), improves

item and scale formats, requires reports of own and not just partner behaviors, and improves operationalization of minor and severe acts of assault. The revised scale (78 responses) is considerably longer than its predecessor (19 responses), but it is not yet clear whether this results in sufficient gains to justify its use, especially among child researchers who want a brief index of marital violence.

An important development in the study of marital violence is the increasing attention paid to psychological aggression and abuse (see Murphy & Cascardi, 1993). As a result, a number of alternatives to the verbal aggression subscale of the CTS have been developed (Marshall, 1992a, 1992b; O'Leary & Curley, 1986; Rodenburg & Fantuzzo, 1993; Tolman, 1989). It has now been shown that psychological aggression toward the spouse is independently and more strongly associated with depressive symptoms than physical abuse among victims of abuse (Arias, 1995), predicts the first act of physical aggression (Murphy & O'Leary, 1989), and is often viewed by victims as worse than physical aggression (Follingstad, Rutledge, Berg, Hause, & Polek, 1990).

The attention given to psychological abuse in marriage is particularly relevant to the child researcher. Psychological abuse between parents is associated with child adjustment in clinical and shelter samples even after the frequency of physical violence between parents is statistically controlled (Jouriles, Norwood, McDonald, Vincent, & Mahoney, 1996). Moreover, initial research on parents' verbal aggression toward children has documented similar deleterious effects on children (O'Leary & Jouriles, 1994; Vissing, Straus, Gelles, & Harrop, 1991). The interplay between psychological abuse of spouses and children and the relative impact of each on child development is an important area for exploration.

Use of spouse report need not be limited to behaviors that cannot be observed. Self-reports may be preferred (for ease of data collection) under conditions where they appear to provide veridical reflections of behavior. Two such circumstances have been documented in the marital literature. First, Gottman and Levenson (1985) developed a continuous rating of self-reported affect over time. This simple measure requires the spouse to indicate his or her feelings using a rating dial with a semicircular arc (ranging from very negative at one end to very positive at the other) as he or she views a videotape of prior marital interaction. Gottman and Levenson (1985) showed that spouses exhibit similar physiological responses when viewing the videotape to those in the original interaction, that self-rated affect was consistent with that

coded by observers, and that it discriminated between high and low conflict interactions and between distressed and nondistressed spouses.

Second, Christensen (1988) developed a questionnaire that assesses communication in couples; one of its subscales correlates substantially with observed spouse behavior (Heavey, Larson, Zumtobel, & Christensen, 1996). More specifically, combined husband and wife reports on the seven item Constructive Communication subscale of the Communication Patterns Questionnaire correlated .72 (it was .70 for husbands and .62 for wives) with observed problem-solving behavior. The subscale score is the sum of responses to three positive items minus the sum of four negative items, and thus represents an index of relative positivity versus negativity.

Although these findings for self-reported behavior are encouraging, two cautions about their limitations are necessary. First, the self-reported and observed behaviors shared only half their variance. Second, it could be argued that Heavey et al.'s (1996) finding simply reflects the well-documented association between marital quality and observed behavior, as traditional marital quality measures include reports of communication.

Conclusions

As with measures of marital quality, the choice of an observational index of marriage is determined by the goal of the child researcher. If the goal is to have an overall index of marital behavior, it is probably easiest to use a measure like the index of positive to negative behavior described earlier. This is a reasonable strategy when, for example, the child researcher wishes to obtain several indicators of a latent marital construct using multiple methods. However, it is apparent that marital observational research has moved beyond the study of overall negative and positive behavior categories. It is therefore important to recognize that use of such categories is reminiscent of early marital research and can provide only limited information.

Advancing understanding of the link between marital and child behavior is likely to require more detailed behavioral indices. For example, the features of marital conflict found to be deleterious for children (e.g., intensity, frequency, lack of resolution, child-related content, and so on) could not have emerged with global measures of marital conflict. However, these conflict dimensions have been identified primarily in analogue studies and studies using verbal reports of marital conflict. The need to verify the

findings from such studies with observational measures of marital interaction is apparent.

Obtaining behavioral indices of the marriage raises questions about the appropriate level of analysis. Are indices at the dyadic level of analysis or indices pertaining to individual spouse behavior more important for understanding child development? Both are important and represent conceptually distinct levels of analysis. The finding that the interactions of distressed couples show greater structure or patterning reminds us that there are properties that characterize the relationship, not either spouse. Most research on marital conflict and child adjustment has focused on conflict in the marital dyad and has not distinguished between husbands' and wives' behavior.

As noted earlier, however, the interaction between parent and child gender in linking marital and child variables (Crockenberg & Forgays, 1996; Katz & Gottman, 1993; Kerig et al., 1993; Osborne & Fincham, 1996) emphasizes the importance of also identifying specific maternal and paternal behaviors. For example, boys and girls may be exposed to different models during marital conflict. That is, boys may act out more than girls when exposed to conflict because fathers may be more aggressive than mothers during overt marital conflicts. Similarly, marital conflict might create more of a loyalty conflict for boys than for girls because boys have a primary caregiver relationship with their mothers, but identify with their fathers (Block, Block, & Morrison, 1981).

Finally, one may wonder whether to focus on conflict behavior or support behavior in the marriage when studying children. It is easy to infer that indices of conflict behavior derived from a marital literature that has focused largely on understanding marital distress may be especially appropriate when the focus is on negative child outcomes. Conversely, the emerging interest in support behavior in marriage may seem most appropriate when the focus is on positive child outcomes. However, investigating conflict or support behavior alone is likely to yield an incomplete, and possibly misleading, picture of the link between marital behavior and child development. By including both forms of behavior, it is possible, for example, to examine the extent to which supportive spouse behavior moderates the quality of parenting in conflictual marriages. Information on such issues is likely to prove particularly valuable in understanding more fully why marital quality before the birth of a child predicts parenting effectiveness in the first year or two of the child's life (e.g., Belsky & Rovine, 1990; Cowan & Cowan, 1992) and parent-child rela-

tionship quality 4 and 6 years later (Cowan, Cowan, Schulz, & Heming, 1994).

What Do We Know about Spousal Cognition?

As the field of close relationships became established as an independent, interdisciplinary area of inquiry in the early 1980s, marriage attracted the attention of psychologists outside the clinical field. The limitations of a purely behavioral account of marriage became more salient, and a *mediational* tradition of research emerged. Building on the findings of behavioral research, the study of intrapersonal factors, such as spouses' thoughts and feelings, that might mediate behavior exchanges or mediate relations between behavior and marital quality became a focus of attention. The literature on spousal cognition that has subsequently emerged parallels the literature on parental cognition (see Sigel, McGillicuddy-DeLisi, & Goodnow, 1992). Unfortunately, these two literatures are still relatively independent, despite overlap in some of the constructs investigated (e.g., attributions, beliefs). Moreover, research linking marriage to child development that is informed by the marital cognition literature is extremely rare (for an exception, see Brody, Arias, & Fincham, 1996). This is an important gap in view of the possibility that spouses may generalize styles or patterns of thinking in the marriage to other family relationships, a possibility supported by data that showed an association between attributions for spousal behavior and those for child behavior (Fincham & Grych, 1991).

To complete the map of marital research offered, and to facilitate a more integrated literature on thinking in family relationships, a guide to the marital cognition literature follows. Because there is confusion and an apparent lack of cohesion in research on cognition in marriage (Baucom, Epstein, Sayers, & Sher, 1989) and in close relationships more generally (Clark, Helgeson, Mickelson, & Pataki, 1994), the ensuing overview is presented in terms of themes that can be used to integrate the research literature on cognition in marriage.⁵

Spousal Cognition: An Overview

As in the behavioral domain, there has been an analogous attempt to document cognitive correlates

5. A literature on emotion in marriage has not emerged independently of behavioral research. Although research on cognition and emotion complement behavioral research, providing a richer picture of marriage, the study of emotion has been more closely integrated within behavioral research and was therefore reviewed in the previous section.

of marital distress. A large number of self-reported cognitive contents has been correlated with marital quality, but systematic research has focused on a narrow range of such cognitions, a circumstance that reflects, in part, the theoretical roots of the research.

In an early analysis, Doherty (1981a, 1981b) argued that when conflict occurs in a relationship, intimates ask two questions: Who or what is causing the problem? and, Can we solve the problem? He then related these two questions to attribution theory and self-efficacy theory, respectively. Although this attribution-efficacy model provides a framework that can be used to integrate cognitive research on family relationships in general, it has received little empirical attention (for exceptions, see Fincham & Bradbury, 1987b; Vanzetti, Notarius, & NeeSmith, 1992). In the marital domain, attribution studies soon dominated marital cognition research, although research on efficacy expectations was not entirely overlooked. However, the second major area of inquiry to emerge examined more general relationship beliefs that presumably give rise to efficacy expectations.

As regards attributions, negative marital events (e.g., partner comes home late from work) tend to be attributed in a manner that promotes conflict by a distressed spouse (e.g., "he only thinks about himself and his needs") and in a benign manner by a nondistressed spouse (e.g., "the traffic was unusually heavy"). The attribution-satisfaction association is arguably the most robust phenomenon in the marital literature (for reviews, see Baucom & Epstein, 1990; Bradbury & Fincham, 1990; Epstein & Baucom, 1993; Fletcher & Fincham, 1991). However, the term commonly used in the literature, "attributional style," implies consistency in attribution responses and does not simply refer to mean attribution scores. It is therefore noteworthy that lower variability in responses on attribution dimensions and consistent use of a single pattern of responses across attributional dimensions have been related to lower marital quality (Baucom, Sayers, & Duhe, 1989; Horneffer & Fincham, 1995).

As regards beliefs, generalized efficacy expectations (spouse's belief that he or she can execute the behaviors needed to settle marital conflicts) have been related to increased satisfaction (e.g., Bradbury, 1989; Pretzer, Epstein, & Fleming, 1991). Specific expectations relating to an upcoming interaction also have been related to satisfaction, with distressed spouses expecting fewer positive and more negative partner behaviors than nondistressed spouses (e.g., Fincham, Garnier, Gano-Phillips, & Osborne, 1995; Vanzetti et al., 1992). Expectancy disconfirmation has

also proved important in understanding changes in marital relationships during the transition to parenthood (Hackel & Ruble, 1992). Finally, unrealistic relationship beliefs (e.g., disagreement is destructive, mind reading is expected) predict marital dissatisfaction and preference for terminating rather than maintaining the relationship (e.g., Eidelson & Epstein, 1982; see also Baucom & Epstein, 1990; Epstein & Baucom, 1993).

Recently, a typology of cognitive contents has been offered that distinguishes among selective attention, attributions, expectancies, assumptions, and standards (Baucom, Epstein, et al., 1989). The distinction between standards and assumptions has received some empirical confirmation (Bradbury & Fincham, 1993; Kurdek, 1992b), and spouses' standards and their judgments about whether their standards were being met are related to marital quality (Baucom, Epstein, Rankin, & Burnett, 1996; Holtzworth-Munroe, & Stuart, 1994). Both standards and attributions also account for unique variance in reported marital quality (Baucom, Epstein, Duito, Carels, Rankin, & Burnett, 1996).⁶

Is the Cognition-Marital Quality Association Valid?

Because the cognition-marital quality association might reflect methodological artifacts (e.g., content overlap in measures of marital quality and cognitive constructs, common method variance) or the operation of factors that covary with marital quality (e.g., depression), several studies have examined methodological and third-variable explanations for this association.

6. For completeness, it is worth noting that attempts have been made to analyze beliefs at the couple level. For example, similarity in spousal beliefs (e.g., in understanding of relationship-relevant concepts such as love and commitment) is associated with marital satisfaction (Arias & O'Leary, 1985). Similarly, perceived similarity in beliefs is more predictive of marital satisfaction than actual similarity of beliefs and accounts for variance in satisfaction that is independent of the dysfunctional nature of relationship beliefs (e.g., Jones & Stanton, 1988), and spousal discrepancies in beliefs were greater for couples headed for divorce (Kurdek, 1993a). However, researchers usually compute couple scores using responses obtained from each spouse individually and then relate such scores to satisfaction. It is not always clear what such scores mean. As Broderick (1993, p. 49) notes, "the average . . . represents an opinion that is held by neither participant and which is attributed to a social system that—like all social systems—is intrinsically incapable of any opinion at all." Until a more meaningful dyadic level of analysis emerges, it seems most prudent to limit the present overview to cognition defined at the intrapersonal level.

The association does not appear to be idiosyncratic to specific measures or to the use of questionnaires. The similarity of findings across measures of specific cognitive variables (e.g., Fincham & Beach, 1988; Sabourin, Lussier, & Wright, 1991), and documentation of the association using observer-coded attributions obtained from marital conversations (e.g., Holtzworth-Munroe & Jacobson, 1988; Stratton et al., 1986), speak to the possibility that the association simply reflects method variance. Similarly, several theoretically relevant third variables do not account for the attribution-marital quality association, including clinically diagnosed depression (Fincham, Beach, & Bradbury, 1989), negative affectivity (e.g., Karney, Bradbury, Fincham, & Sullivan, 1994), marital violence (Fincham, Bradbury, Arias, Byrne, & Karney, 1997), and demographic variables, depressive symptoms, and anger (Senchak & Leonard, 1993).

Such findings, however, do not alone document the importance of cognition in marriage. This is because Weiss (1980) observed that spouses can respond to partner behavior and to questions about the partner/marriage without taking into account the specific nature of the partner behavior or the question asked. Instead, they simply respond in terms of their dominant feeling about the marriage. He coined the term "sentiment override" to refer to the hypothesis that the general sentiment spouses experience toward the marriage determines spouse responding and is reflected "in as many tests as one chooses to administer" (Weiss & Heyman, 1990, p. 92). Belief in this position is so strong that attempts to explain variance in marital quality using self-reports have been characterized as "invalid from a scientific standpoint" (Gottman, 1990, p. 79).

The sentiment override hypothesis is important for the child researcher. This hypothesis requires child researchers who include marital cognition measures in their studies to show that these measures do not simply assess marital quality. Consider, for example, a study that investigates whether spouse reports of own ability to solve marital problems are related to reports of the child's problem-solving behavior during peer interactions. The sentiment override hypothesis requires that overall marital quality be assessed and partialled out of any relation between reports of parent and child problem solving. The child researcher also needs to be aware that many, especially self-report, instruments in the marital literature may be proxy variables for marital quality, and have not been shown to satisfy the requirement outlined in the above hypothetical study.

In view of such observations, we need to ask

whether there is any evidence to show that the cognitions studied in marital research reflect something other than marital quality. If they do not, the child researcher can then safely ignore them.

Cognitions influence marital behavior. An assumption that motivated research on marital cognition was the belief that cognitions influence spouse behavior. With marital satisfaction partialled from the attribution-behavior relation, it has been shown that conflict-promoting responsibility attributions are related to (1) less effective problem-solving behaviors (Bradbury & Fincham, 1992, Study 1), (2) more negative behaviors during problem-solving and support-giving tasks (Miller & Bradbury, 1995) (and that this association is independent of level of depression; Bradbury et al., 1996), (3) to specific affects (whining and anger) displayed during problem solving (Fincham & Bradbury, 1992, Study 3), and (4) that husbands' and wives' conflict-promoting attributions are related to increased rates of negative behavior during a problem-solving discussion (Bradbury & Fincham, 1992, Study 2). The attribution-behavior association tends to be moderated by marital quality, in that it is stronger for distressed spouses (e.g., Miller & Bradbury, 1995) and tends to occur more consistently for wives and for responsibility attributions (which concern liability for sanction). There is also some evidence that wives' unrealistic beliefs are related to higher rates of negative behavior and lower rates of avoidant behavior in interactions (Bradbury & Fincham, 1993).

Finding that spouses' cognitions relate to their rates of behavior is encouraging, but does not address whether their cognitions guide responses to particular partner behaviors and not others. For example, attributions are thought to be evoked by and guide responses to negative behavior. Consistent with this view, wives' conflict-promoting attributions correlate with the tendency to reciprocate negative husband behavior (e.g., Miller & Bradbury, 1995). Similarly, husbands' unrealistic relationship beliefs correlate with their tendency to reciprocate negative behavior, and wives' beliefs are inversely related to their tendency to respond positively to negative husband behavior (Bradbury & Fincham, 1993). The partialling of satisfaction from these relations shows that they do not simply reflect sentiment override.

Finally, an experimental study shows that manipulating attributions for a negative partner behavior influenced distressed spouses' subsequent behavior toward the partner (Fincham & Bradbury, 1988). Thus, both correlational and experimental findings

are consistent with the view that spousal cognitions, particularly attributions, influence marital behavior.

Cognitions influence marital distress. A second assumption that motivated marital cognition research was that cognition initiates and/or maintains marital distress. This assumption has been examined in longitudinal research. Because only the variance that cognitions do not share with marital quality is used to predict changes in marital quality, it is difficult to account for significant findings by arguing that cognitions simply index marital quality. Several studies show that attributions predict marital satisfaction 12 months later, and that they do so independently of depressive symptoms and marital violence (e.g., Bradbury, 1989; Fincham & Bradbury, 1987c, 1993; Fincham, Bradbury, et al., 1997).

The few longitudinal data pertaining to beliefs are less clear cut. Although initial unrealistic relationship beliefs were unrelated to change in newlyweds' satisfaction over 3 years (Kurdek, 1991), over 4 years during the transition to parenthood (Kurdek, 1993b), or over a 1 year period in established marriages (Fincham & Bradbury, 1987c), changes in beliefs were correlated with changes in satisfaction in the first two cases. In a similar vein, Bradbury (1989) found that initial marital satisfaction was positively related to changes in efficacy expectations regarding marital problem solving over 12 months, but that for wives, earlier efficacy also predicted changes in satisfaction. As regards specific expectations prior to a problem-solving discussion, husbands' expectations of lower rates of positive wife behavior and wives' expectation of tension during the interaction predicted declines in satisfaction over a 12 month period. In sum, data consistent with a causal relation in which cognition influences satisfaction have been obtained in all the studies reported.

To summarize, available research documents a robust association between cognition and marital satisfaction, addresses artifactual explanations for the association, provides data consistent with the view that cognitions influence marital behavior and marital quality, and provides some, albeit limited, guidance on the content of the cognitions important for understanding marital satisfaction. These data do not appear to simply reflect spouses' sentiment (satisfaction) toward the marriage, but instead provide insights for understanding such sentiment. Moreover, cognition research complements information obtained from observations of spouse behavior. For example, the reciprocation of negative behaviors by distressed spouses may well reflect the conflict-promoting attributions they make for negative partner behaviors, and spouse perceptions partially me-

diate the relation between observed behavior and marital instability (Matthews et al., 1996). How, then, does the child researcher obtain an index of spouse cognition?

Obtaining Indices of Marital Cognition

The number of "cognitive" measures potentially available to the child researcher can be intimidating. One possible starting point is to determine whether systematic marital research has been conducted on the cognitive construct of interest. If such research exists, an important criterion is that the measure gives information not provided by measures of marital quality. This reduces dramatically the number of cognitive constructs for which such measures exist to the few reviewed above. If systematic research on the cognitive construct of interest does not exist, knowledge of the criteria outlined above for cognitive measures can serve to guide the child researcher in the development of an assessment device.

But, the child researcher may ask, what about a brief cognitive measure that could be used, together with my marital quality and marital behavior measures, as an indicator of a latent variable reflecting the state of the marriage? This is an important question because common method variance (e.g., self-report) and single-source variance (e.g., reports of wife/mother) are pervasive problems in research on the marital relationship and child development. The primary candidate for use as one of several indicators of a latent marriage construct is a measure of attributions. Measures have been devised to assess spontaneous attributions (e.g., obtained from conversations, thoughts listed in response to prompts supplied by the investigator such as spouse behaviors) and to assess attributions solicited by the investigator for marital events (e.g., marital problems, hypothetical and real spouse behaviors).

In considering each of these methods, it is important to distinguish the content of attributions from their underlying dimensions. Although attribution content is limited only by human imagination, relatively few dimensions underlie such content (Weiner, 1986). It is the study of attribution dimensions that has advanced attribution research in psychology (see Hewstone & Fincham, 1996) and in the study of marriage.⁷ Thus, attempts to code spontaneous attributions from interactions focus on coding causal

7. Marital research does not always reflect an understanding of this distinction, and attribution scores sometimes reflect attribution content, a mixture of content and underlying dimensions, or even the characteristics of the event for which an attribution is made.

dimensions (e.g., locus, stability, globality, and controllability of causes). The most extensively documented coding system is the Leeds Attribution Coding System (LACS; Stratton, Munton, Hanks, Heard, & Davidson, 1988) that has been used in a variety of familial and nonfamilial contexts (e.g., Silvester, Bentovim, Stratton, & Hanks, 1995; Stratton et al., 1986). Another example of such measures in the marital literature is provided by Holtzworth-Munroe and Jacobson (1985, 1988), and Bradbury and Fincham (1988) discuss methodological and conceptual issues involved in coding spontaneous attributions. Finally, Peterson, Schulman, Castellon, and Seligman (1992) describe a procedure to code attributions from naturalistic material (e.g., diaries, conversations) that has been used in research on depression.

Coding spontaneous attributions is more labor intensive and provides a different perspective on the data than ratings of attributions made by spouses. Spouse ratings of attributions are the most commonly studied data in marital research. However, different stimulus events have been used to generate attributional data, and responses are not the same across events. For example, Sabourin et al. (1991), in a cross-cultural replication of the attribution hypothesis, found that attributions for marital difficulties and for hypothetical partner behaviors were only moderately correlated, with the former more often accounting for unique variance in satisfaction. They called for a standardized attribution measure to facilitate greater comparison of findings across studies, a possibility realized by publication of the Relationship Attribution Measure (RAM; Fincham & Bradbury, 1992). Advantages of this measure include its brevity, inclusion of indices for causal and responsibility attributions, simplicity for respondents, and the recent development of an analogous measure for children's attributions for parent behavior (Children's RAM; Brody et al., 1996; Fincham, Beach, Arias, & Brody, 1997).

The development of the Children's RAM points to the possibility of obtaining analogous cognitive data from family members for each of the family relationships in which they participate. Such data raise interesting issues that have received little attention. For example, do members of the family exhibit similar cognitive styles? Alternatively, does a family member use the same cognitive style in thinking about different members of the family,⁸ a possibility for which

there is some preliminary evidence (see Fincham & Grych, 1991)? When family members use different cognitive styles in thinking about the child (e.g., each makes different attributions for particular child behaviors), how does this influence child development as compared to use of a similar cognitive style across family members?

What about a nonattributional measure? Although a measure of unrealistic relationship beliefs, the Relationships Beliefs Inventory (RBI; Eidelson & Epstein, 1982), appears promising, refinement in the conceptualization of cognitive contents in marriage (Baucom, Epstein, et al., 1989), combined with criticism of the measure (e.g., Emmelkamp, Krol, Sanderman, & Ruphman, 1987), suggest that its use may not be appropriate. Although only recently developed, the measure of standards provided by the Inventory of Specific Relationship Standards (ISRS; Baucom, Epstein, Rankin, & Burnett, 1996) appears to provide a more promising index of an alternative cognitive construct.

It remains to note that research reflecting a broader conception of cognition that includes nonconscious processes has been initiated in the marital literature and has important implications for assessing marital cognition (see Fincham, 1997; Fincham, Bradbury, & Scott, 1990). Drawing on cognitive psychology, it has been hypothesized that the cognitive accessibility of a construct determines whether it is used by a spouse in processing information, responding to partner behavior, and so on. Using response latency as a measure of the accessibility of marital quality (evaluative judgments of the partner), Fincham et al. (1995) have shown that accessibility moderates the relation between marital quality and attributions and specific expectations; significantly larger correlations occur when accessibility is relatively high versus low. Because spouses whose marital quality is highly accessible are likely to process information about the partner in terms of their marital quality, it is possible that, relative to spouses whose marital quality is not as highly accessible, their marital quality will remain stable over time. This has been demonstrated over 6, 12, and 18 month intervals (Fincham, Beach, & Kemp-Fincham, 1997). Such findings suggest an important qualification to the sentiment override hypothesis, namely, that it may apply only to spouses whose evaluation of the marriage is highly accessible.

In principle, this broader approach to cognition could be generalized to the study of other family relationships. For example, the accessibility of a parent's evaluative judgments of the child could be used to advance understanding of the parent-child relationship. Once generalized in this manner, the question

8. This should not be confused with an emergent cognitive style that characterizes the family, an issue that has been investigated by family researchers (e.g., Reiss, 1981).

that arises is how accessibility of evaluations of the marriage relates to accessibility of judgments about the child. These questions regarding accessibility are important because attitude research shows that accessibility moderates attitude-behavior relations; highly accessible evaluations predict behavior toward the attitude object, whereas less accessible evaluations do not predict behavior as well (Fazio, 1995). Finally, combining the accessibility of evaluations with the earlier distinction between positive and negative evaluations of the marriage has the potential to allow more precise prediction of behavior (see Fincham, Beach, & Kemp-Fincham, 1997). Again, these same questions can be applied to parent-child relations and to the interplay between marital and parent-child relations.

With increased access to microcomputers and experiment-generating software, the use of response latency is likely to increase in family research. A very readable introduction to the use of response latency methods in the social domain is provided by Fazio (1990).

Conclusions

Available data on cognition in marriage document replicable phenomena, address artifactual explanations for the phenomena, provide evidence consistent with the view that cognitions influence marital quality and marital behavior, and provide some, albeit limited, guidance on the content of the cognitions important for understanding marriage. Moreover, marital researchers appear to be on the threshold of expanding research beyond the study of cognitive contents to include the study of cognitive processes. However, the study of cognition in marriage has thus far had little impact on research investigating child development and marital relationships.

From the perspective of the child researcher, two avenues of inquiry appear particularly promising. First, the literatures on marital and parental cognition appear to be ripe for cross-fertilization. For example, both have documented the importance of similar cognitive contents (e.g., unrealistic relationship beliefs, attributions), and the potential of each to enrich the other is further enhanced by the varying methods and theoretical perspectives used in each literature. Second, such cross-fertilization will facilitate the emergence of integrative frameworks that can be used to study multiple family relationships. This would be a welcome development, for the numerous strands of research on cognition in family relationships remain somewhat insular.

ARE ALL PERSPECTIVES ON THE MARRIAGE EQUALLY RELEVANT TO THE CHILD RESEARCHER?

Two perspectives have dominated research on marriage, namely, the perspective of the trained observer (outside perspective), and of the spouses themselves (inside perspective). Each can be used to provide information on behavior, affect, and cognition. However, the information yielded by these sources is often contradictory (e.g., Margolin, Hattem, John, & Jost, 1985; Robinson & Price, 1980), which raises the question of which perspective to use.⁹ This issue has given rise to analysis of the most appropriate marital assessment model (e.g., insider versus outsider crossed by objective versus subjective data; Olson, 1977) and the suggested need to match data source and construct (e.g., subjective conditions → self-report; relationships properties → trained observers; Huston, & Robins, 1982), as well as reconceptualization of the issue in terms of levels of analysis (e.g., Sigafos, Reiss, Rich, & Douglas, 1985).

The significance of discordance between these perspectives involves, at a minimum, the theoretical status of what is being investigated (see Kozak & Miller, 1982) and theoretical assumptions made about the construct by the self-report and observational methods usually used to index these insider and outsider perspectives (Ozer, 1989). It suffices to note that neither perspective has a privileged status, and that the two are best seen as complementary. Does this mean that there is no particular perspective that should be granted a privileged status by the child researcher? Recent theoretical and empirical analyses suggest that there is such a perspective.

Focus on the Child's Perspective

The impact of a stressful event on a child is best understood by considering the child's interpretation of the event (e.g., Compas, 1987; Kagan, 1983). Two complementary theoretical analyses develop this viewpoint in regard to marital conflict (Davies & Cummings, 1994; Grych & Fincham, 1990). In both, the meaning of the conflict for the child is hypothesized to mediate its impact, with one analysis emphasizing cognitive and the other the emotional factors in determining meaning. This central tenet is thought to account, in part, for differential effects of marital

9. As noted earlier, the insider perspective may vary as a function of husband versus wife reports. The measurement and data analytic issues that arise in couple research are discussed by Kashy and Snyder (1995).

conflict on siblings, the conflicting findings of research that examines whether the effects of marital conflict on children are direct (where child perspective is dominant) or indirect (where perspective of parent is dominant), the more consistent relation found between child outcomes and marital conflict to which the child is exposed versus marital conflict in general, and so on. From this vantage point, spousal and observer reports of marital conflict are not optimal because children may perceive some parental disagreements as conflictual even when they are not experienced or coded as conflictual, and vice versa. Moreover, parents may not be aware of all instances of children's exposure to conflict, and their reports do not, in any event, index the degree of attention the child pays to the conflict.

Is there any empirical evidence to support the above status accorded children's perspective of marital conflict? In an initial study, Emery and O'Leary (1982) found that boys' perceptions of marital conflict were a stronger predictor of their adjustment than either marital satisfaction or maternal ratings of interparental conflict. In a similar vein, Grych, Seid, and Fincham (1992) showed that parent reports of interparental conflict and marital satisfaction were not as consistently related to child adjustment as child reports of marital conflict; only child reports of interparental conflict correlated with child adjustment assessed across different informants. Moreover, Cummings, Davies, and Simpson (1994) found that boys' perceptions of marital conflict predicted considerably more unique variance (26%) in their overall adjustment than did mothers' reports of conflict (3%).

The logic that points to investigation of children's appraisals of marital conflict also supports investigation of their appraisals of other marital variables. In fact, in their cognitive-contextual model, Grych and Fincham (1990) hypothesized that children's appraisals of marital conflict are influenced by psychologically defined contextual variables (e.g., perceived emotional climate of the family, past experience of interparental conflict). Similarly, in developing the hypothesis that children's reactions to marital conflict are governed by their perceived implications for emotional security, Davies and Cummings (1994) accord the child's mental models arising from attachment experiences a central role in determining the meaning of the conflict for the child. It also seems likely that appraisals of the marital conflict will, in turn, affect such contextual variables. For example, children who appraise exchanges between their parents as hostile may feel less secure in their relationships with their parents and may interpret parent-

child conflict as being more hostile or threatening than children who have not appraised marital exchanges as hostile.

In sum, children's appraisals of the marriage may function as a context in which parent-child relations are interpreted and vice versa. If children's appraisals of the marriage are so important, how does the child researcher obtain indices of them?

Obtaining Indices of Children's Appraisals of the Marriage

Although numerous measures have been developed to assess children's perceptions of family relationships (e.g., parent-child relationship, Margolies & Weintraub, 1977; sibling relationship, Fuhrman & Buhrmester, 1985) and family climate (Moos & Moos, 1981), attempts to assess the child's perspective on their parents' marriage have been rare and have focused on perceptions of interparental conflict. Different approaches to assessing such perceptions are briefly described.

The Children's Perception of Interparental Conflict Scale (CPIC; Grych et al., 1992) was derived from the analysis of marital conflict in Grych and Fincham's (1990) cognitive-contextual model. It attempts not only to capture children's perceptions of marital conflict, but to distinguish among nine conflict-relevant dimensions. Although an internally consistent scale was constructed for each dimension, factor analysis of the nine dimension scores yielded three derived scales (Conflict Properties: Intensity, Frequency, and Resolution; Threat: Threat and Coping Efficacy; Self-Blame: Conflict Content and Self-Blame). These derived scales were cross-validated in a second sample, show high internal consistency (coefficient alpha $>.78$) and good test-retest reliability (.68-.76 over 2 weeks), and emerged again in later studies (Harold et al., 1997; Osborne & Fincham, 1996). Children's responses on these scales correlated with parent reports of conflict and with child adjustment, and accounted for unique variance in child adjustment when examined in relation to each other, with perceptions of parental hostility, and with parent reports (see Cummings et al., 1994; Harold et al., 1997; Kerig, 1996). The CPIC has been used in published studies with children ranging in age from 8 to 14 years, and its factor structure has been replicated in a sample of 17- to 21-year-olds (Bickham & Fiese, 1997).

Crockenberg and Forgays (1996) have piloted a second, complementary approach to assessing the child's perspective of marital conflict. It involves vid-

eotaping marital conflict and then exposing children to carefully selected segments of the videotape. Following exposure to the marital conflict, children are interviewed, and their responses in the interview are, in turn, videotaped and coded. Two advantages of this procedure are that it can be used with younger children (as young as 6 years), and it potentially allows comparison of responses across methods of data collection (e.g., observed and self-report parent and child data). Although the assessment is resource intensive, it is likely to provide important data if the ethical and practical difficulties regarding its use are successfully negotiated. For example, Crockenberg and Forgays (1996) reported that only 15% of families referred to the project agreed to participate. Nonetheless, this approach speaks to the issue of ecological validity posed by a substantial literature on children's responses to conflict that uses either hypothetical interactions, or interactions between strange adults or between the mother and a strange adult (for a review see Cummings & Davies, 1994a).

Children are unlikely to give equally useful reports across different aspects of the marriage, and developmental differences will shape how they perceive the marriage. Indeed, among younger children such differences are likely to determine the extent to which they differentiate between characteristics of the marital and parent-child relationships, and one may even question whether young children can provide reliable information about family relationships.

In light of these observations, the recent development of the Berkeley Puppet Interview (Ablow & Measelle, 1995) assumes particular importance. Motivated by the relative lack of developmentally sensitive measures, Ablow and Measelle (1995) initially drew upon the CPIC in developing an interactive interview approach to assessing young children's (4½ to 7 years) perceptions of marital conflict. An important element of the interview is that it also assesses other family issues (e.g., relationship with each parent, sibling relationships, shared and nonshared environments) and the child's perceptions of his or her competence, self, and emotional well-being. Thus far, reported data on perceptions of the family have focused on marital conflict. Even at this young age, children's reports of marital conflict are reliable (coefficient alpha ranges from .65 to .71 across dimensions assessed) and correlate significantly (.46) with that observed between parents when working with the child on a task in the laboratory. Children's perceptions of marital conflict are also related to teacher reports of externalizing behaviors, and their processing

of the conflict is related to teacher reports of depressed and withdrawn behavior; self-blame for parental conflict related to more depressed and withdrawn behavior, whereas acknowledging that the conflict made them feel badly was inversely related to such behavior (Ablow, 1995).

An alternative approach to assessing children's views is to use standard conflict stimuli. The Parental Conflict Story Completion Task (Davies & Cummings, 1998) presents children with a simulated verbal conflict between a man and a woman and asks them to imagine that the conflict is taking place between their parents. This serves as a stimulus for a structured set of interview questions designed to assess three dimensions of children's perceptions: the short-term emotional consequences of the conflict, long-term parental relations, and the impact of the marital relationship on parent-child relations. Children's responses are recorded and coded on these dimensions, as well as in terms of their overall security regarding the marital relation. These four dimensions reflect a latent variable of internal representations of marital relations that mediates the link between marital discord and children's internalizing, but not externalizing symptoms, in 6- to 9-year-old children (Davies & Cummings, 1998).

Finally, children's beliefs about their control over marital conflict may be just as important as their perception of the conflict. This is because children who believe they can control marital conflict may intervene in it, effectively turning marital conflict into family conflict and making themselves potential targets of negative conflict behaviors. Alternatively, they may attempt to control marital conflict by engaging in behaviors (e.g., extreme acquiescence) that are developmentally inappropriate and potentially maladaptive. Rossman and Rosenberg (1992) developed the Discord Control and Coping Questionnaire to assess children's control beliefs about marital conflict. Using a sample of 6- to 12-year-old children, they found two factors, direct intervention (e.g., "Some kids think they can keep their parents from yelling at each other") and self-calming (e.g., "When parents fight some kids say to themselves 'Things will be Ok'"). Although they went on to demonstrate the moderating effect of these beliefs, their focus was on general life stress and child outcomes rather than on marital stress per se. Thus, the extent to which children's control beliefs about marital conflict moderate the impact of the conflict on them remains unknown. It is also important to determine the relation between children's perceptions of conflict and their control beliefs about marital conflict.

Conclusions

There are a number of perspectives on marriage that the child researcher can use to obtain data. However, it is becoming increasingly apparent in research on the impact of marital conflict on children that the child's perspective is critical. Researchers have therefore begun to devise ways to assess the child's perspective, but there is clearly considerable scope for developing further indices of children's perceptions of the marriage. Interestingly, research relating to children's perspectives, like most marital research, has focused on marital conflict. The implications of viewing marriage exclusively through the lens of conflict is explored in the next section.

SOME PROMISES AND PROBLEMS OF MARITAL RESEARCH RELEVANT TO CHILD RESEARCH

In highlighting some of the ways in which marital research can inform the study of child development, I have described briefly the evolution of systematic research on marriage in psychology. In this section I explore the legacy of this research evolution to clarify the limitations of marital research and to identify promising new developments in the field.

Marriage Is More Than Marital Conflict: Emergence of New Frameworks for Assessing Marriage

The applied origins of marital research have left an indelible mark on the field. As noted, a major portion of the literature focuses on conflict behaviors associated with marital distress, and this has been useful for informing interventions with couples. However, such data yield an incomplete picture of marriage as "the relative importance of marital conflict has been assumed rather than demonstrated" (Bradbury et al., in press, p. 16). Thus, for example, there have been few attempts to examine the importance of conflict behavior compared to other types of behavior (e.g., deficits in social support) that might predict marital quality equally well or even better. Similarly, there is a need to examine the relative importance of conflict and other types of marital behavior for child development.

Recognition of this limitation has led to broader conceptual frameworks for the assessment of marriage (e.g., Bradbury & Fincham, 1991; Gottman, 1994). One promising such framework is Karney and Bradbury's (1995) vulnerability-stress-adaptation

(VSA) model. This framework focuses on the interaction between stress and enduring vulnerabilities (thereby addressing differential outcomes within and between couples) in affecting the adaptive processes that mediate their influence on marital outcome (thereby identifying a specific mechanism through which marital distress is produced). Bradbury (1995) provided a detailed description of how to assess the domains identified in the framework and reviewed appropriate measures for each.

The VSA framework reminds us that marital functioning may have a greater or lesser impact on children as a function of contextual factors and therefore supports the increasing attention to context in research on marital relations and child development. As noted earlier, a child exposed to a poor marriage may be less affected in the absence of external stressors on the marriage than in the presence of such stressors. Rutter et al. (1974) found some support for this viewpoint because exposure to a stressor such as interparental discord did not produce child adjustment problems; however, the co-occurrence of two or more stressors increased risk multiplicatively. Moreover, it appears that some circumstances, such as a good relationship with one parent, a positive school environment, and a close relationship with an adult outside the family, can act as buffers, mitigating the effect of exposure to marital discord (Jenkins & Smith, 1990; Rogers & Holmbeck, 1997; Rutter et al., 1974). A complete account of the relation between marital and child functioning therefore must include consideration not only of the marriage itself, but also the context in which it exists.

Marital Health Is More Than the Absence of Marital Conflict: Emergence of Analysis of Marital Health

An assumption omnipresent in the marital literature is that marital health is the opposite of marital distress. However, Weiss and Heyman (1997, p. 17) note that such assumptions are illogical and state emphatically that "Marital harmony is not just the absence of whatever it is that dissatisfied couples do." Although the focus on marital conflict has been helpful in defining what happy couples do not do, we know remarkably little about what happy couples do that is functional or that has beneficial effects on child development. Existing research suggests that there are likely to be a variety of *necessary* characteristics and skills associated with high marital quality, including good communication skills, ability to successfully and mutually anticipate and resolve prob-

lem issues, anticipation and preparation for future marital stressors, and maintaining a high ratio of positive to negative interactional behaviors. But there is no convincing evidence to suggest that these characteristics are *sufficient* to produce high marital quality.

As a result, attention is beginning to be directed toward what might constitute marital health (see Kelly & Fincham, in press). The emergence of research on marital health is likely to be important for child research. Relatively little attention has been paid to the impact of healthy marriages in promoting positive child outcomes. This is important because positive child outcomes (e.g., adaptive coping strategies, good social or interactional skills) are unlikely to result simply from the absence of maladaptive marital functioning. A more complete understanding of children is therefore likely to be facilitated by the identification of factors that promote marital health. In this regard, the emerging emphasis on support behaviors exhibited by spouses is likely to be particularly important, not only for understanding marriage, but also for advancing understanding of child development and marital functioning.

Snapshots Are Not Home Videos: A Longitudinal Perspective

Recognition of different findings revealed by cross-sectional and longitudinal research has led marital scholars to examine systematically the longitudinal course of marriage. Although some 115 longitudinal studies had been conducted on marriage, few researchers in the marital area appear to have been aware of the extent of this literature until Karney and Bradbury's (1995) recent analysis. This important, integrative review consolidated a rapidly increased interest in researching the developmental course of marriage. This area of inquiry is particularly relevant for child researchers interested in the transition to parenthood because much of the recent interest in how marriages change has focused on newlywed samples. There is considerable potential to integrate what has been learned about the early years of marriage with the literature explicitly devoted to the transition to parenthood (see Belsky & Kelly, 1994). Bradbury (in press) has compiled a useful compendium for this purpose that consists of recent longitudinal research programs and the issues raised by such research. Detailed descriptions of individual programs have also been published (e.g., Gottman, 1994; Veroff, Douvan, & Hatchett, 1995). As regards child development, Fincham, Grych, and Osborne (1994) analyze directions and challenges for longitu-

dinal research relating marital conflict to child adjustment.

Marriage Is More Than the Study of Individuals: Methodological Advances

Because psychological research tends to have been a study of the individual (Sarason, 1981), marital researchers have had to look beyond its methods to understand marriage. Not surprisingly, one of the hallmarks of marital research has been the methodological advances that accompanied its emergence in psychology. Of particular importance has been the development of methods to examine relationship properties and processes that transcend the individual. Special sections devoted to methodology in recent issues of marriage and family journals (e.g., *Journal of Family Psychology*, 1995, 9, 107–185; *Journal of Marriage and the Family*, 1995, 57, 847–1121) continue this tradition. The increased attention to longitudinal study of marriage is also accompanied by useful methodological advances in the study of change that are likely to be of special interest in child research. However, procedures for investigating units larger than the dyad (e.g., triads, the whole family) remain limited (Cox & Paley, 1997; but see Reiss, 1981; Vuchinich, Angelelli, & Gatherum, 1996). The development of such procedures is important for understanding the family system and how marital functioning, within the context of this broader system, influences child development.

Conspicuous by its relative absence, however, is the development of interview schedules for use with couples. Early research by Rutter and Brown (1966; Brown & Rutter, 1966) showed that marital quality rated from interviews could be used profitably in studying the etiology and course of psychopathology. Although their pioneering work has subsequently been developed further and continues to pay dividends in identifying the aspects of family relationships that illuminate recovery from mental illness, interview-based assessment of marriage has not flourished. Given that clinical researchers were among the first psychologists to systematically study marriage, this is surprising because diagnosis of psychopathology through interview measures is a common clinical tool.

There are, however, notable exceptions to the above general statements. For example, Veroff and colleagues (Veroff, Sutherland, Chadiha, & Ortega, 1993a, 1993b) provide examples of how spouses' narratives can be used in marital research. In a similar vein, Buehlman and colleagues (Buehlman, Gottman, & Katz, 1992) have developed an oral history

interview for use with couples based on the interview methods of the journalist Studs Terkel (Buehlman & Gottman, 1996). Both of these newer approaches, however, have not yet resulted in published data from laboratories other than the ones in which they were developed.

In view of the relative lack of development of interview measures, it is worth noting that Brown and Andrews have developed a semistructured interview to assess vulnerability to depressive disorder that includes ratings of the marriage/cohabitation (Self-Evaluation and Social Support Instrument; Andrews & Brown, 1991, 1993; Brown, Andrews, Harris, Adler, & Bridge, 1986). Interestingly, separate positive and negative ratings are made on a number of relevant dimensions, including feelings of security and insecurity within the relationship, partner's positive and negative evaluation of the interviewee, felt competence and incompetence as a partner, and positive and negative quality of interaction with the partner. Other ratings are also obtained, namely, commitment to the marriage/cohabitation, extent of confiding in the partner, dependency on the partner, active emotional support by the partner, pleasurable associated with sex, and overall quality of the marriage/cohabitation. Although not developed for the assessment of marriage per se, this instrument has the potential to advance interview-based approaches to the study of marriage. A further advantage of this measure is that it provides a link to depression research, an issue addressed in the next section.

Marital Functioning Is Not Always the Active Ingredient: The Ubiquitous Problem of Third Variables

Identifying an association between a child outcome and marital functioning does not establish the importance of the marital variable for understanding children. As illustrated in the discussion of marital cognition research, the researcher must attempt to rule out the possibility that the association is spurious. One important factor that needs to be examined is parental adjustment, especially depressive symptomatology. Depression has been strongly linked to disturbed marital functioning (for a review, see Beach, Smith, & Fincham, 1994), with one epidemiological study reporting a 25-fold increase in the relative risk of major depression for people reporting themselves to be in unhappy marriages (Weissman, 1987). Similarly, child adjustment has been strongly linked to parental depression (for reviews, see Cummings & Davies, 1994b; Downey & Coyne, 1990), making it imperative to ensure that links between

marital and child functioning are not simply a reflection of depressive symptoms in spouses.

Several well-established measures of depressive symptoms are available. Among the most widely used self-report instruments are the Beck Depression Inventory (BDI; see Beck, Steer, & Garbin, 1988) and the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977). However, whether clinical depression is a qualitatively different entity or simply represents a quantitative increase in depressive symptoms remains unresolved. Hence, use of a structured diagnostic interview to assess episodes of clinical depression is desirable, especially when studying high-risk or patient populations.

CONCLUSION

In the relative absence of single sources that attempt to offer an overview of what has been learned through the scientific study of marriage (for exceptions, see Fincham & Bradbury, 1990; O'Leary & Smith, 1991), I have attempted in this article to provide an overview of the marital literature in psychology that is relevant for child researchers. In doing so, I have traversed a great deal of ground. Having identified why child researchers should pay attention to marital research, a brief tour of the marital landscape was presented. This entailed discussion of a central construct investigated in marital research, as well as reviews of what we know about behavior and cognition in marriage. In each case, practical recommendations were made about how to obtain indices of constructs. Similarly, recommendations were made about assessing the child's appraisal of the marriage, a perspective that is particularly relevant for child researchers. To complete the picture offered, several promises and problems of marital research were briefly discussed.

Although much ground was covered, such a brief tour of the marital landscape is necessarily incomplete. This article is therefore best seen as a starting point for gaining an informed knowledge of the marital literature. Gaining such knowledge is likely to prove worthwhile not only for understanding children and their development, but also for enriching our understanding of marriage. Just as it is important for child researchers to pay attention to marriage, it is equally important for marital researchers to recall that for many couples "child effects" (Bell, 1968) must be considered for a complete understanding of the marriage. Already researchers interested in children have contributed to marital research by identifying and developing measures of dimensions of couple conflict that have received limited attention from

their marital counterparts (see Kerig, 1996). In this article, I have attempted to facilitate further cross-fertilization between research on marriage and on child development.

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