Emerging perspectives on couple communication

Adrian Kelly
School of Applied Psychology
Griffith University Gold Coast

Frank D. Fincham

State University of New York at Buffalo

Steven R. H. Beach University of Georgia

Chapter to appear in J. O. Greene & B. R. Burleson (Eds.), <u>The Handbook of Communication</u> <u>and Social Interaction Skills</u>. NJ: Erlbaum.

Author Notes

Preparation of this paper was supported in part by Griffith University grant 1998 781SAKRES to the first author and by a grant from the Templeton Foundation to the second and third authors. Correspondence to Adrian B. Kelly, School of Applied Psychology, Griffith University, Gold Coast, PMB 50 Gold Coast Mail Centre, 4217, email a.kelly@mailbox.gu.edu.au

Emerging perspectives on couple communication

This chapter examines empirical research on communication in marriage or married-like relationships. Such a chapter is warranted on several counts. First, marriage remains a popular social institution with about 80% of the population professing an intention to marry at some point in their lives (McDonald, 1995). Although most couple relationships start out happy, satisfaction erodes for a substantial proportion of marriages. At any given time, 20% of all married couples report marital dissatisfaction (Reynolds, Rizzo, Gallagher, & Speedy, 1979), and in Western countries, between 40% and 55% of marriages end in divorce (De Guilbert-Lantoine & Monnier, 1992; McDonald, 1995). Second, marital communication is a more valued resource for married individuals than communication with others; amongst married people, the spouse is the person most often turned to for support (Cutrona, 1996; Sarason, Sarason, & Pierce, 1994). Third, escalation of conflict into violence is common among married couples. Physical aggression occurs in about 30% of married couples in the United States (Straus, Gelles, & Steinmetz, 1980) and newly wed couples in the United Kingdom (Kelly & Fincham, 1999) and leads to significant physical injury in about 10% of couples (Straus & Gelles, 1986; Straus et al., 1980). Marriage is also the most common interpersonal context in which homicide occurs (National Committee on Violence, 1990). Fourth, marital conflict is associated with child problems, particularly when children are exposed to it, when it is frequent, intense, involves physical aggression, and remains unresolved (Cummings & Davies, 1994; Grych & Fincham, 1990; Fantuzzo, et al., 1991). Finally, conflictual couple communication is associated with stress-related disease indicators, such as poor immune response (Kiecolt-Glaser, et al., 1987), and sustained elevations in stress-related hormones (Malarkey, Kiecolt-Glaser, Pearl, & Glaser, 1994).

The overall aim of this chapter is to identify ways in which we might advance our understanding of couple communication, and to explore their implications for couple

interventions. To this end, the chapter is divided into four sections. In the first section, we evaluate current behavioural assessment technologies, and identify behavioural communication processes important for understanding how relationships evolve. In the second section, we explore promising new constructs in couple communication research and their relation to marital satisfaction. The third section examines intra- and extra-personal factors that influence marital communication. In the final section, we discuss implications for prevention, enhancement, and therapy.

Conceptualizing and operationalizing couple communication skills

How couple communication is operationalized is, in part, determined by the theoretical stance of the researcher. The most commonly used theoretical perspective in the study of marriage is behavioural. From this perspective, communication is operationalized in terms of the observable behavior that occurs during couple interaction. Cognitive and affective processes are clearly important in understanding how an individual responds to partner behavior, and we discuss these processes in a later section on factors influencing communication.

Overview of behavioural methods and findings

From a behavioral perspective, communication is critical for understanding couple development. Briefly stated, spouses tend to evaluate their marriage as happy when they experience their interactions as rewarding and tend to experience declines in marital satisfaction when they interact in ways that extinguish or punish positive behaviours. A first step in evaluating the role of communication processes in accounting for marital quality is to review the tools commonly used by behavioral scientists to assess communication.

<u>Spouses as observers</u>. One method of assessing the interactional behaviour of couples is to have them record the types of behaviours that occur on a day-to-day basis. Wills, Weiss, and Patterson (1974) developed the Spouse Observation Checklist (SOC) for this purpose.

The SOC contains approximately 400 items tapping pleasing and displeasing marital events. Events include those that are instrumental (defined as those necessary for the marriage to survive as a social and economic unit, e.g., "spouse cooked a good meal") and those that are affectional (defined as those behaviours that serve to maintain interpersonal attraction by conveying acceptance, affection and approval, e.g., "spouse touched me pleasantly"). Wills et al. had participants record the number of times each behaviour occurred on a daily basis and indicate, on a seven-point rating scale, the degree of pleasure or displeasure associated with it.

The SOC has been widely used to provide information on how the interactions of distressed and nondistressed couples differ. Wills et al. (1974) found that displeasing instrumental behaviours by both husbands and wives accounted for more variability in daily ratings of marital satisfaction than other behaviours. These findings were replicated in later studies using the original SOC (e.g., Barnett & Nietzel, 1979; Birchler, Weiss, & Vincent, 1975) and in shorter versions in which items were tailored for each couple (e.g., Atkinson & McKenzie, 1984). Wills et al. also found that instrumental behaviour was more closely related to satisfaction in husbands than in wives, whereas affectional behaviour was more closely related to satisfaction in wives than in husbands.

A limitation of the SOC is the modest agreement between spouses on the occurrence of pleasing and displeasing behaviours (Christensen & Nies, 1980). Elwood and Jacobson (1982) found a 38.6% agreement in couples beginning marital therapy. Extensive couple training in use of the SOC does improve interspousal agreement, but agreement rates remain below conventional standards for reliable observation (Elwood & Jacobson, 1988). Marital theorists propose that low interspousal agreement may be more a function of various cognitive filters and biases and less a function of actual interactional behaviour (Floyd & Markman, 1983).

Trained coders as observers. A method that circumvents the various biases associated with spouses' perception and interpretation of events is to use trained coders as observers of couple interactions. In practice, this method typically involves videotaping couples discussing problem issues for short periods (usually around 10 minutes) in a research setting. Is such a sample of couple communication really representative of typical interactions?

A variety of sources indicate that the observational paradigm does capture interactional processes representative of typical couple interaction. For example, couples themselves report that interactions are reminiscent of their typical interactions (e.g. Margolin, John & Gleberman, 1989). Marital communication in the laboratory also correlates with marital interaction in the home (Kelly & Halford, 1995; Krokoff, Gottman & Hass, 1989). Finally, maritally satisfied and dissatisfied couples can be reliably distinguished on the basis of their behavior in structured laboratory interactions, suggesting that many aspects of interaction are not suppressed by laboratory conditions.

A variety of coding systems are typically used to code couple interactions and these vary enormously in type of coding unit and unit complexity (Floyd, 1989). For example, the type of coding unit might involve time sampling (where the unit is a fixed amount of time), or event sampling (where the unit duration is variable and determined by some naturally occurring boundary, such as a statement, or "thought" unit). Within coding units, the types of behaviors that are monitored vary in complexity. Some behaviors are precisely defined a priori and involve relatively little judgement (e.g., a smile), whereas others involve a high degree of judgement or abstraction by the observer (e.g., enmeshment).

The Marital Interaction Coding System (MICS-IV; Heyman, Weiss, & Eddy, 1995) is a well-validated example of a micro-analytic system, where coding units are small and monitored behaviors discrete. In the MICS-IV, every new behavior is coded, including changes in speaker content, with both verbal and nonverbal behavior being used in the coder's

decision making. The types of behaviors allocated to each partner include discrete behaviors, such as a disagreement or excuse, as well as behavioral constructs for which there is no single marker. An example of the latter is withdrawal, where a gestalt of behaviors (e.g., no response to partner, turn off cues such as rolling eyes, closed-off body language, no eye contact) are used to judge if withdrawal is occurring.

Some popular micro-analytic coding systems are relatively crude in their measurement of nonverbal behavior; coding of verbal behavior tends to contain greater richness (more categories) than nonverbal behavior. This is at odds with findings that nonverbal affect is more strongly related to couple satisfaction than verbal behavior (e.g., Krokoff, 1987; Smith, Vivian, & O'Leary, 1987). For example, in the Marital Interaction Coding System, nonverbal behavior ratings are positive, neutral and negative. These ratings are assigned on the basis of voice tone, facial expressions and body posture. There is evidence that such crude ratings may miss important subtleties in 'negative' behavior. For example, Gottman argues that particular types of anger expression (contemptuousness and vindictiveness) are more corrosive than others. Similarly, depressive affect appears to be functionally distinct from expressions of anger (e.g., Biglan et al., 1989; Nelson & Beach, 1990). As a result, several attempts have been made to code affect more precisely (e.g., Gottman, McCoy et al., 1996).

At the opposite extreme, macro-coding systems have been developed and tested, including the Interactional Dimension Coding System (IDCS: Julien, Markman, & Lindahl, 1989), the Rapid Couple Interaction Scoring System (RCISS; Krokoff, Gottman, & Hass, 1989), and the Marital Interaction Coding System – Global (MICS-G; Weiss & Tolman, 1990). Macro-coding systems have large coding units (typically around three minutes), and coders make an overall Likert rating based on the frequency, intensity and duration of a summary code. To take one of these as an example, the MICS-G has six summary categories: conflict, problem solving, validation, invalidation, facilitation and withdrawal. The summary

codes used in many macro-coding systems reflect those behaviors that have been found to covary with marital satisfaction using micro-coding systems.

Several empirical and conceptual limitations regarding coding systems for couple communication have been raised. Not surprisingly, inter-observer reliability for macrocodes is lower than for micro-coding systems (Floyd, 1989). Given the level of abstraction across many dimensions, such as micro-behavior timing (early or late in the coding unit), Floyd (1989) and Weiss (1989) note that it is not clear how coders make their ratings. At the conceptual level, it can be argued that coding methods (both micro- and macro-coding systems) stray in several ways from a behavioral formulation of couple communication. For example, Jacobson and Christensen (1996) point out that behavioral observation is based on a value judgement of what constitutes 'good' and 'bad' communication. Also by studying communication in highly structured settings in standardized formats, couples' communication is divorced from natural antecedents that may be important in understanding the ebb and flow of positive and negative communication.

Several studies show that couple communication varies according to contextual factors. Diary studies illustrate that stressful marital interactions occur more frequently on days of high general life stress, and at times and places associated with multiple competing demands (Halford, Gravestock, Lowe & Scheldt, 1992). Furthermore the topics of marital disagreements often coincide with the activities partners are engaged in at the time (Halford et al., 1992). Krokoff, Gottman, and Roy (1988) found that husbands who were unhappy with work showed more negative affect towards their wives than husbands who were happy with their work. Bolger, DeLongis, Kessler and Wethington (1989) found that arguments at work were related to marital conflict that evening. Finally, Cohen and Bradbury (1997) found that problem solving behavior was not independent of life events that couples commonly reported, and so the impact of problem solving and stressful events on marital adjustment should not be

studied in isolation. As these examples suggest, some framework capable of explicating the inter-relations among context, behavior, and internal states is critical for advancing the field (Fincham & Beach, in press).

Despite these limitations, behavioral observation has yielded much information on general communication patterns associated with marital satisfaction (Weiss & Heyman, 1990; Weiss & Heyman, 1997). Perhaps not surprisingly, when distressed couples discuss relationship problems, they show more interruptions (Schaap, 1984), criticisms and complaints (Fichten & Wright, 1983; Revensdorf, Hahlweg, Schindler, & Vogel, 1984), and negative solutions (e.g., "Let's just forget the whole thing"; Weiss & Tolman, 1990) than their nondistressed counterparts. When nondistressed couples do complain, complaints are focused on the partner's behavior, rather than on his or her personality (Weiss & Heyman, 1990). Also, relative to happy couples, distressed couples show less constructive problem-focused behavior. For example, distressed couples show fewer self-disclosures and positive suggestions (Birchler et al., 1984; Margolin, Burman, & John, 1989), and less pinpointing and verbalizing of problems in a noncritical way (Birchler et al., 1984; Margolin & Wampold, 1981). Distressed couples show less agreement (Margolin & Wampold, 1981; Revensdorf et al., 1984), acceptance (Jacobson & Christensen, 1996), empathy (Birchler, Clopton, & Adams, 1984), eye contact, and smiling. Gottman (1994) found that happy couples use metacommunication to correct unhelpful interactive behaviors. For example, a spouse may respond to "Please, you're not letting me finish" with "Sorry... please finish what you were saying".

Nonverbal communication. When one studies the interactions of happy couples, it is often not verbal content that stands out. Instead, what is remarkable is the pleasurable emotions couples appear to be experiencing; the smiles, laughs, affection and warmth that they show. Similarly, it is the agitation, tears, distress, anger and coldness in distressed

couples that is often immediately evident. Happy and distressed couples differ in their nonverbal behavior during interactions (e.g. Gottman, 1979; Levenson & Gottman, 1983; for a review, see Bradbury & Fincham, 1987). Perhaps not surprisingly, Birchler, Weiss and Vincent (1975) found that distressed couples behaved with less humor, assent, smiling, and laughter than happy couples. Gottman and Krokoff (1989) found that relative to nondistressed couples, distressed couples show high levels of fear, anger, disgust and sadness. Also characteristic of distressed couples is withdrawal (e.g., maintaining silence, looking away, leaving the room), and body postures that are stiff, closed, and turned away from the partner (see Weiss & Heyman, 1990, 1997 for reviews; Weiss & Tolman, 1990).

Nonverbal communication is more reflective of communication problems and marital distress than verbal communication (Gottman, Markman, & Notarius, 1977; Krokoff, 1987; Smith, Vivian, & O'Leary, 1987). When couples are instructed to act as happy couples, independent observers can still reliably distinguish happy from unhappy couples on the basis of nonverbal behavior (Vincent, Friedman, Nugent & Messerly, 1979). That distressed couples are less able to "turn off" negative behavior suggests that negative nonverbal behavior is much harder to shift in therapy than verbal behavior.

Self-reported affect and communication. Methods of assessing self-reported affect during interactions have taken several forms. For example, Gottman (1979) showed couples a videotape of their interaction and had each spouse manipulate a semicircular dial to record their affective experience (from extremely negative to extremely positive). Amongst distressed couples, a spouse's negative feelings were likely to be followed by negative feelings from the partner, whereas nondistressed spouses were more likely to validate a partner when they expressed negative feelings. Because affect was operationalized as unidimensional (i.e. from extremely negative to extremely positive), this method is limited as it does not provide information on qualitative variations in affect.

Affective experience during marital interactions has been shown to be an important determinant of future marital quality. Levenson and Gottman (1985) analysed data collected at two time points separated by a three-year interval. Affective and physiological reciprocity at Time 1 were regressed onto change scores in marital satisfaction (marital satisfaction in 1980 minus marital satisfaction in 1983). In terms of self-reported affect (using the rating dial system described above), the amount of positive and negative affect, as well as patterns of negative affect reciprocity, were predictive of changes in marital satisfaction. In particular, negative affect reciprocity explained 16% of variance in marital satisfaction change scores, over that explained using physiological indicators of arousal. Gottman and colleagues propose that distressed couples are enmeshed in a negative cycle. Presumably, spouses detected changes in the affective and physiological experience of the partner via their partner's behavior (either verbal or nonverbal), and respond similarly.

<u>Positive versus negative communication</u>. While overall patterns of communication distinguish happy and unhappy couples, there is also great heterogeneity within maritally distressed and nondistressed groups. Gottman (1993) drew attention to the heterogeneity of marital interactions by developing a typology of couples based on the interactional behaviors

that predicted later separation. He found that those couples who stayed together and those who separated over a four-year period could be reliably distinguished on the basis of the relative mixture of positive and negative behaviors. Three types of stable couples (validators, volatiles, avoiders) and two types of unstable couples (hostile and hostile/detached), were derived based on the ratio of positive to negative affect observed during interaction.

Compared to hostile couples, hostile/detached male partners were far less engaged as listeners, showed more verbal contempt, and were less positive in discussing agendas. Hostile/detached wives showed more verbal contempt, less interest, and more disgust than other groups.

To describe positive and negative communication as separate variables is to omit the possibility that positive communication may moderate the association of negative communication and marital satisfaction, and vice versa. This makes intuitive sense. Couples with the same level of negativity may differ vastly in marital satisfaction if there are differences in positive experiences (Fincham, Beach & Kemp-Fincham, 1997). There is good evidence that ratios of positive to negative vary across happy and unhappy couples. For example, Birchler, Weiss, and Vincent (1975) found that the ratio of positive to negative behavior was about 30 for nondistressed couples, and around four for distressed couples. Howard and Dawes (1976) found that the rate of sexual intercourse relative to arguments predicated marital satisfaction but that the rate of either alone did not predict satisfaction.

Research on the importance of ratios of positive to negative behavior has several implications for communication in couples. First, such findings suggest that there is not an absolute level of positivity or negativity that makes for functional marital communication. Second, the frequency of positive behavior needs to greatly outweigh negative behaviour to ensure a happy relationship.

Longitudinal processes. Considering marital communication in terms of its proximal rewards and punishments is to understate the importance of the variable of time. Intuitively, negative communication that has immediate corrosive effects on marital satisfaction may boost marital satisfaction in the long term. A couple may reach a solution after a highly aversive argument, which resolves a recurrent and resentment-building interaction pattern in the long term. It is reasonable to hypothesize therefore that communication behaviors may vary in their proximal and distal effects on relationship satisfaction.

There is some longitudinal research to support this common sense notion. Cohan and Bradbury (1997) found that wife's anger facilitated their adjustment to major and interpersonal events such that depressive symptoms declined and their marital satisfaction increased. Also, while anger is associated with lower concurrent marital satisfaction (Gottman & Krokoff, 1989), anger can lead to increases in marital satisfaction over time (Gottman & Krokoff, 1989), and is not predictive of divorce (Gottman, 1994; Gottman, Coan, Carrere, & Swanson, 1998). However, four process, including criticism, defensiveness, contempt, stonewalling (listener withdrawal), and belligerence (provocative challenges of the spouses power and authority) predict divorce (Gottman, 1994; Gottman et al., 1998). Anger then, need not be corrosive; however, when it contains vindictiveness and contempt, it may have a corrosive effect. Cohan and Bradbury (1997) found that husbands' humor contributed to marital instability when spouses reported more major stressful events. It is notable that the subtleties of negative affect are not captured in conventional coding systems such as the MICS.

There is strong evidence that interactional behavior prospectively predicts changes in marital satisfaction. In their meta-analysis of longitudinal studies of marriage, Karney and Bradbury (1995) calculated aggregate effect sizes for behavioral predictors of marital satisfaction and stability. Aggregate effect sizes are an estimation of the magnitude and

direction of the effect of a variable based on the results of multiple studies, independent of sample size or statistical power of any single study (Schmidt, 1992). Karney and Bradbury found that couples' negative behavior at Time 1 strongly predicted marital quality at Time 2 (aggregate effect sizes were between -.30 and -.42 for husbands and wives respectively). Behavioral positivity also predicted both marital satisfaction and stability. In particular, an aggregate effect size of .42 for wives, and .37 for husbands was found in the prediction of marital satisfaction, and .33 for wives, and .46 for husbands in the prediction of marital stability.

Dysfunctional cycles. Relative to nondistressed couples, distressed couples show a greater likelihood of negative behavior by one partner (e.g., criticism) being followed by a negative response (e.g., criticism, denial of responsibility, or interruption) by the spouse (Gottman, 1994; Margolin & Wampold, 1981). Gottman (1994) interpreted this phenomenon as a problem of being "locked in" to a destructive pattern of engagement, from which maritally distressed couples, unlike happy couples, are unable to exit. Negative reciprocity has been shown to have a negative impact on marital satisfaction over time. Julien, Markman, and Lindahl (1991) examined the premarital interactions of 59 couples, rating their interactions for positive and negative escalation, and correlating these ratings with relationship satisfaction 18, 36, and 48 months later. Higher levels of negative escalation at time 1 covaried with lower levels of satisfaction concurrently (r = -0.42) and at later time points (r = -.23, -.30, and -.30 respectively), although the correlations are notably modest.

In addition to negative reciprocity, positive reciprocity (an increased likelihood of positive responses when a partner behaves positively) has been reported to be associated with decreases in marital satisfaction (Filsinger & Thoma, 1988). Post-hoc analyses of those who stayed married and those who separated 60 months later revealed that higher levels of positive reciprocity at the initial assessment were more characteristic of the relationships that had

ended by 60 months than those who stayed together. Filsinger and Thoma noted that this latter finding was difficult to interpret because \underline{z} scores corresponding to this sequence were not above chance levels, and others have criticized this study on the basis that change scores, rather than regressive procedures, were used (Woody & Costanzo, 1990). The finding that positive reciprocity predicts marital instability may seem counterintuitive. However, consistent with the interpretations of Weiss and Heyman (1997) and Gottman (1994), these results suggest that distressed couples are locked into sequences of behavior. In distressed couples, positive responses appear functionally dependent on positive behaviors occurring, rather than occurring at chance rates (i.e., not dependent on partners' behavior).

Demand-withdraw patterns. A second key interactional process commonly observed in distressed couples is that one spouse pressures the other with demands, complaints and criticisms, while the partner withdraws with defensiveness and passive inaction. This interaction pattern is commonly referred to as the demand/withdraw pattern (Christensen, 1987, 1988). Building on a series of early studies on self-reported demand/withdraw patterns (Christensen, 1987, 1988; Christensen & Shenk, 1991), Christensen and Heavey (1990) videotaped interactions of families discussing a topic chosen by each spouse. Topics were related to parenting behavior in each spouse. It was found that frequency of demands by the female partner and withdrawal by the male partner were negatively related to marital satisfaction.

That female-demand and male-withdrawal behaviors are associated with low marital satisfaction is consistent with several other studies of gender differences in interactive behavior. In particular, women display more negative affect and behavior than do men (Margolin & Wampold, 1981; Notarius & Johnson, 1982; Schaap, 1982), and male partners make more statements suggestive of withdrawal, such as not responding and making irrelevant comments (Schaap, 1982; Schaap, Buunk, & Kerkstra, 1988). In distressed

couples, women request more changes in their partner than vice versa, and also report wanting higher degrees of change than men (Margolin, Talovic, & Weinstein, 1983).

Roberts and Krokoff (1990) investigated demand/withdraw processes using time-series analysis to assess the temporal relationship of withdrawal and hostility during conflict. They found that amongst distressed couples, husbands' withdrawal was predictive of their wives becoming hostile, but no such relationship was found among happy couples. A pattern of male withdrawal followed by female expression of hostility accounted for 20% of the variance in marital satisfaction above that accounted for by overall affective tone.

Marital theorists have speculated that males find conflict intrinsically more distressing than females, and that is why men are likely to withdraw from conflictual discussions (Gottman, 1994). However, this view has been criticized on the grounds that who demands and who withdraws may vary according to which partner desires change (Heavey, Layne, & Christensen, 1993). In addition, women appear to be more reactive to conflict with a romantic partner than men across a number of physiological indices (Kiecolt-Glazer et al., 1996). Female partners also have greater investment in changing the marital relationship than male partners, and so will be more likely to demand than their partners.

To clarify this issue, Heavey, Christensen, and Malamuth (1995) explored how demand/withdraw patterns vary according to which partner's problem issue was discussed. When discussing the husband's issue, there were no systematic differences in the roles taken by each spouse. However when discussing the wife's issue, women were much more likely to be demanding and men more likely to be withdrawing than the reverse. Similarly, Klinetob and Smith (1996) found that demand-withdraw patterns switch polarity when the topics chosen for discussion clearly focus on an issue of change for each partner. These results provide good evidence that although men and women tend to play different roles in typical

dysfunctional interactions, these roles are sensitive to context and are particularly sensitive to whose issue is under discussion.

New constructs in couple communication

While it is evident that most research on couple communication has focused on how couples handle divisive issues, effect sizes for the association between problem solving behavior and marital satisfaction are modest (Karney & Bradbury, 1995). We now turn to some new challenges in describing the communication patterns that show promise in accounting for added variability in global evaluations of marital satisfaction.

Spousal support

It is notable that what is known about the communication skills of couples is mostly based on problem solving. Indeed, four categories of marital communication have been defined on the basis of their problem solving function (Sayers, Baucom, Sher, Weiss, & Heyman, 1991). The problem focused and avoidance categories reflect spouses' attempts to address or not to address the problem at hand, whereas the facilitative and nonconstructive categories represent spouse behaviors that are conducive (cooperative) or harmful (competitive) to any discussion or problem-solving attempt. This is limiting in our definition of what constitutes functional communication. There are many other aspects of communication that may be equally important. For example, the degree to which spouses support each other while resolving problems is not adequately reflected in such categorizations.

In the last decade, research attention has turned to the ways in which couples deal with individual spouse problems. The partner's role in providing support is a fruitful expansion of our conception of couple communication because the partner is the most common person turned to in times of stress (Cutrona, 1996), and the provision of support has a beneficial impact on physical and mental health outcomes (Coyne & Downey, 1991). Cross-sectional

research using self-report measures indicates that spousal support is correlated with marital satisfaction (Acitelli & Antonucci, 1994; Cutrona & Suhr, 1994). Interestingly, perceptions of spousal support within marriage are more strongly related to the general well-being of wives than husbands (Acitelli & Antonucci, 1994; Julien & Markman, 1991). Acitelli and Antonucci (1994) argue that the topography of behaviors perceived as supportive probably vary according to gender (see also Culp & Beach, 1998). Women may value emotionally intimate forms of support (e.g., talking, receiving affection) more than men.

Systems for coding spousal support have recently emerged. In the Social Support Interaction Coding System (SSICS; Pasch, Bradbury, & Sullivan, 1997), the coding units are speaking turns for the helper and helpee. Helper support behavior is coded as positive instrumental (e.g., specific suggestions, helpful advice, specific questions), positive emotional (e.g., reassurances, consoling, conveys love), or negative (criticizes, expresses negative affect). The behavioral responses of the helpee are also coded according to positive (e.g., expresses feelings related to the problem), negative (e.g., demands help, blames or accuses the partner). The SSICS is useful in determining how support behaviors vary according to gender and how important they are in predicting changes in marital satisfaction.

Pasch and Bradbury (1998) showed that spousal support behavior (coded using the SSICS) predicts changes in marital satisfaction among newlyweds over a two year period. For example, helper support behavior (during discussion of personal, nonmaritally-related stressors) and negative affect during problem solving both predicted marital satisfaction independently. Also, wives' support solicitation and provision behaviors predicted marital outcomes two years later, independent of negative behaviors during marital problem-solving discussions. Spousal support provision and solicitation are unique aspects of couple communication.

Self-regulation

A common feature of distressed couples' interactions is a rigid and inflexible response process. In other words, cycles of conflict are predictable, and these cycles are difficult for distressed couples to exit. Karoly (1993) defined self-regulation as those processes, internal and/or transactional, that enable an individual to guide his or her own goal directed activities over time and across changing circumstances. Regulation implies modulation of thought, affect, behavior, or attention via deliberate or automated use of specific mechanisms and supportive meta-skills. Halford, Sanders, and Behrens (1994) emphasize that self-regulation implies a dynamic reciprocal interchange between internal and external determinants of behavior. Self-regulation therefore describes a meta-skill, a process of modulating thoughts, feelings and behavior in response to a problem.

At a theoretical level, the construct of self-regulation fits well with an idiographic approach to understanding couple interactions. The definition emphasizes a flexible and dynamic response style, rather than a prescribed and absolutist template of what constitutes functional communication. Therefore, what is functional in one setting, may not be functional in another. For example, problem solving might work in some stress-related contexts, but not in others, where an affectionate and active listening approach might work. The concept of response modulation and flexibility is not new in psychology (e.g., the neo-Freudian Karen Horney,1942, argued that individual maladjustment was characterized by inflexible use of interpersonal responses), and it is surprising that this communication meta-skill has not been researched empirically in marriage.

Acceptance

A common feature of distressed couples' interactions is a focus on changing the partner's behavior. Jacobson (1992) defined acceptance in the therapeutic setting as a letting go of the struggle to change the partner, and in some cases even embracing those aspects of a partner that have traditionally been precipitants of conflict (Jacobson & Christensen, 1996).

Acceptance implies that some conflicts cannot be resolved, and these conflicts may be sources of intimacy and closeness. The potential utility of this behavioral construct is demonstrated in preliminary trials of Integrative Couples Therapy (incorporating acceptance interventions), which indicate lower separation and divorce rates than traditional BMT (Lawrence, Eldridge, Christensen & Jacobson, 1999; Phelps & Jacobson, 1998; see fourth section).

Lawrence et al. (1999) operationalize acceptance work as involving four components: empathic joining around the problem, unified detachment from the conflict, tolerance building, and self-care. In current coding systems, operationalizations of acceptance lag behind Jacobson's definition. In the MICS-IV (a microcoding system) and the Interactional Dimensions Coding System (IDCS; Julien et al., 1987, a macrocoding system), there are no codes that adequately capture this construct. In other microcoding systems, there are some approximations. For example, in the Brief Interaction Coding System (Osgarby & Halford, 1995), there is an acceptance microcode, but acceptance is operationalized in this coding system as behaviors that show that the spouse is trying to relate to their partner in an empathic, understanding, and validating way. This definition is at odds with Jacobson's focus on responses to negative aspects of the partner.

Power

Martial theorists and clinicians (Minuchin, 1974; Whisman & Jacobson, 1990) have long discussed the role of power. However, this construct has often been poorly defined, with the possible exception of behavioral marital research. In this literature, marital distress has been associated with distorted asymmetrical, or denied power structures, whereas high marital satisfaction has been associated with differential, symmetrical and clear power structures (Markman & Notarius, 1987; Minuchin, 1974; Whisman & Jacobson, 1990). Dysfunctional imbalances of power within a marital relationship are most often operationalized as

nonegalitarian decision-making (e.g., Gray-Little & Burks, 1983; Szinovacz, 1981), conversational dominance (e.g., Gray-Little, 1982; Whisman & Jacobson, 1990), and low conversational support (Kollock, Blumstein, & Schwartz, 1985; Whisman & Jacobson, 1990).

Dysfunctional imbalances in power are, however, likely to have orthogonal manifestations. While some operationalize elevated power as conversational dominance (Whisman & Jacobson, 1990), others argue that conversational withdrawal may be a manifestation of low power. For example, Heavey et al. (1995) and Jacobson (1989) argue that conversational dominance is a manifestation of distress regarding areas of change, and conversational withdrawal is a manifestation of satisfaction with the status quo. As with other behavioural constructs, verbal or content-based operationalisations of power may vary across the sexes and investment in decision-making regarding areas of change.

Notably absent from operationalisations of power in couple communication is nonverbal behaviour. In couple interactions, postural, vocal and facial expressions may be a more reliable and valid means of studying power. For example, slumped body posture, high frequencies of resigned agreement with the partner, and pleading with the partner are likely to be important indicators of low power. Similarly, dominating posture, stern commands, scoffing and other statements calling into question the partner's credibility may be manifestations of elevated power. At present, coding systems are inadequately designed to capture such behaviours.

Connectedness

When happy couples reminisce on positive events, a sense of connectedness is often evident. For example, when recalling a skiing trip, partners may share memories about the exhilaration of conquering a tough slope, then move on to laugh about their falls, their time in the pub afterwards, and the interesting people they met. There is a sense of mirrored positive affect, and elaboration on the content each person contributes. At the other extreme, it is sad

to watch the communication of unhappy couples when they recall positive events. There is a poverty of information, a disjunction or asynchrony of positive affect, and little in the way of expansion in relaying associated experiences. Recent research by Osgarby (1998) found that connectedness regarding positive events and memories discriminates happy and unhappy couples.

In response domains other than observed behavior, there is good evidence that synchrony in affect and arousal levels is a useful predictor of marital satisfaction and outcome. As noted earlier, Gottman (1979) found that amongst distressed couples, a spouse's negative feelings were likely to be followed by negative feelings from the partner, whereas nondistressed spouses were more likely to validate a partner when they expressed negative feelings than distressed couples. Levenson and Gottman (1985) found that negative affect reciprocity was predictive of marital satisfaction three years later.

<u>Integration</u>

Through observing couples' communication, some well-replicated interactional patterns have emerged. Inflexible communication patterns, such as negative reciprocity and demand/withdraw patterns, impede problem resolution and erode marital satisfaction over time. The identification of generalized patterns has however, been at the cost of a reduced focus on heterogeneity of marital interactions across couples, context (e.g., immediate stressors), developmental stage (newlywed versus aged couples), and on communication patterns other than those that are problem focused. There seems to be no general formula of communication that is universally adaptive within relationships.

The review so far has highlighted a range of behavioural constructs that show promise in furthering our understanding of what types of communication patterns predict marital quality. These constructs include spousal support, self-regulation, power, acceptance and connectedness. It seems likely that behavioral operationalizations will necessitate a move

beyond micro-analytic perspectives on behaviour, to embrace macro-analytic perspectives that utilize a gestalt approach to their operationalization. From the definitions available in existing literature, and the definitions suggested in this review, it is also clear that such constructs need to be estimated using a dyadic unit of analysis. That is, coding these behavioral constructs will necessitate the coding of one spouse's behavior in reference to the stimuli and responses of the partner. As a simple example, acceptance by one partner may be dependent upon the partner's explication of his or her own negative characteristics.

Accounting for variability in couple communication skills

In this section, we provide an overview of key factors that influence communication skills in couples. To provide a structure for our analysis, we utilize Karney and Bradbury's (1995) Vulnerability-Stress-Adaptation (VSA) model of marriage. The VSA model draws together developmental theories of marital satisfaction and stability, including those that emphasise early relationship history and stable individual characteristics (e.g., attachment theory; Bowlby, 1969), the impact of stressful events external to the couple (e.g., Crisis theory; Hill, 1949; McCubbin & Patterson, 1982), and behavioral marital theory. The adaptive processes component of the model incorporates observed communication, as well as cognitive and emotive processes which are presumed to mediate behaviour. Karney and Bradbury propose that communication processes are influenced in three ways: through enduring vulnerabilities, stressful events, and the interaction of enduring vulnerabilities and stressful events.

Enduring vulnerabilities

A recent study that illustrates the role of stable individual factors in governing relationship quality is a four-wave longitudinal study spanning 12 years in which marital satisfaction across successive marriages was examined (Johnson & Booth, 1998). These authors found that, for those who remarried over this time, satisfaction with the first marriage

predicted marital satisfaction in subsequent marriages, suggesting that individual factors were "carried over" from one relationship to the next. Although this study did not examine what these individual factors were, the results pointed to the need to extend our conception to enduring individual factors as determinants of couple communication.

While many studies have explored the association of enduring vulnerabilities (e.g., education, family of origin conflict) and marital satisfaction, relatively little research has explored the association of enduring vulnerabilities and communication in couples. For discrete predictors, available research points to a significant association. For example, spouses' reports of their family of origin experience is associated with the number of specific complaints about their own marriage (Overall, Henry, & Woodward, 1974). Halford, Sanders, and Behrens (1999) found a significant association between male exposure to violence in the family of origin and nonverbal negative affect and behavioral negativity in engaged couples' conflict management. These studies are consistent with the notion that individuals bring experiences into their marital relationship which can affect the way couples communicate.

Personality research also has contributed to our understanding of the determinants of couple communication and relationship satisfaction. Of the "Big Five" personality traits (neuroticism, extraversion, impulsivity, agreeableness and conscientiousness; McCrae, Costa & Busch, 1986), neuroticism is the personality trait most strongly associated with marital stability (Kelly & Conley, 1987; Watson & Clark, 1984). Neuroticism has been variously defined as primarily physiological overreactivity to stressful environmental stimuli (Eysenck, 1967), and the propensity to experience negative affect (Watson & Clark, 1984). Several studies have been conducted on the longitudinal association of neuroticism and marital satisfaction, with small overall effect sizes of -.19 for females and -.13 for males. However, only one study has been published on the association of neuroticism and communication. Karney and Bradbury (1997) found that neuroticism and marital interaction were not

correlated within or between couples, which is inconsistent with the hypothesis that neuroticism and marital interaction mediate each other in their effects on marital satisfaction.

Stressful events

That stressful events occur to married individuals at some point over their marital career is a truism. Because marital communication has been largely researched without taking contextual factors such as stressful events into account, it may be the case that changes in marital satisfaction are more a function of stress than communication problems (Cohan & Bradbury, 1997). A growing body of research links stressful events with marital satisfaction. Amongst married men, stressful life events in the previous month have a greater negative impact in those that are distressed compared to those who are happily married (Whiffen & Gotlib, 1989). Broman, Riba, and Trahan (1996) found that people who had been physically attacked in the past reported lower levels of satisfaction. Because these later studies are retrospective and cross-sectional, the causal directions linking stressful events and marital satisfaction are unclear. Also, because these studies did not measure communication, it is unclear what role communication has in reducing the impact of stressful events on marriage.

Cohan and Bradbury (1997) propose that communication may influence the impact of stressful events on marital satisfaction in three ways. First, they propose that communication may buffer, or moderate, the effect of stressful events on marital satisfaction. Second, they propose that communication may lead to enhanced marital satisfaction when stressful events occur (termed the personal growth model of stress). Third, they propose that communication may mediate the association of stressful events and marital satisfaction. That is, stressful events predict communication, and communication predicts marital satisfaction. Two studies inform us of how stressful events, communication, and marital satisfaction are related. In an 18-month longitudinal study, Cohan and Bradbury (1997) administered checklists of stressful events, behavioral measures of verbal and nonverbal behavior during problem solving, and

measures of marital satisfaction at two time-points 18 months apart. They found evidence that problem solving moderates the effect of life events. They also found evidence of a personal growth effect; when wives expressed higher proportions of anger, reports of stressful events predicted increased marital satisfaction, suggesting that wife's anger was beneficial for personal and marital adjustment in the context of stressful life events.

Subjective experience, couple communication, and relationship satisfaction

Many studies have conceptualized subjective experience as being composed of emotion and cognition. These two processes have typically been studied in isolation, which may have lead to an artificial distinction between cognition and emotion (Bradbury & Fincham, 1987). However, for heuristic reasons, the distinction between cognition and emotion is maintained in the following review.

We all have basic beliefs about the nature and form of couple relationships. Consistent with Ellis's rational-emotive theory (Ellis, 1976), much research on cognition has studied the association of irrational beliefs and marital distress (Eidelson & Epstein, 1982; Baucom & Epstein, 1990). Eidelson and Epstein (1982) developed the *Relationship Beliefs Inventory* (RBI) to examine five such beliefs (disagreements are destructive, partners cannot change, sexual perfectionism, mind reading is expected, and the sexes cannot change). It was shown that reductions in the endorsements of irrational beliefs predicted therapy outcome (Eidelson & Epstein, 1982) and increased marital satisfaction over and above irrational beliefs about the self (Eidelson & Epstein, 1982; Baucom & Epstein, 1990). Moreover, some of the beliefs are related to observed spouse behavior (Bradbury & Fincham, 1993).

Unrealistic beliefs about the partner may characterize happy couples. Murray, Holmes and Griffin (1996) investigated the extent to which idealized spousal qualities (e.g., kindness, affection, openness, patience, understanding, responsiveness, tolerance and acceptance), were characteristic of happy dating and married couples. Beliefs about the partner were compared

to the partner's beliefs about himself or herself. Happy couples were found to view their partners in a more positive light than their partners viewed themselves, and individuals were happier in their relationships when they idealized their partner and their partners idealized them. Studies have consistently shown that estimates of perceived reciprocity based on one spouse's report are greater than those of actual reciprocity based on both partner's separate reports (Acitelli & Antonucci, 1994; Acitelli et al., 1993). These sorts of biases may be functional in that they maintain high marital quality, by increasing the likelihood of consistent behaviors that confirm partner perceptions (Kelly & Fincham, 1998).

The most extensively investigated cognitions studied in marriage are the attributions spouses make for marital events. A large number of studies have shown that distressed spouses, relative to nondistressed couples, make maladaptive causal attributions that accentuate the impact of negative marital events and minimize the impact of positive events (see Fincham in press, for a review). For example, a distressed spouse may attribute their partner's failure to complete a chore to a stable and global factor located in the partner (e.g., laziness), whereas a nondistressed partner may attribute such behavior to an unstable, specific and external factor (e.g., an unusual work demand). Also, "attribution style" or variability in attributions has been linked to marital quality. Less variable responses have been associated with marital distress (Baucom, Sayers, & Duhe, 1989), although attempts to replicate this finding have only been partially successful (Horneffer & Fincham, 1995). Finally, Fincham and Bradbury (1987) found that attributions, but not unrealistic beliefs, predicted marital satisfaction 12 months later. This result has been replicated and is independent of spousal depression (Fincham & Bradbury, 1993) and marital violence (Fincham, Bradbury, Arias, Byrne, & Karney, 1997).

Other cognitive constructs receiving some empirical attention build on Bandura's (1977) social learning models of behavior. Bandura (1977, 1986) postulates that behavior is

in part determined by an individual's beliefs about what he or she can successfully achieve (i.e., perceived self-efficacy), and the individual's beliefs about the consequences of behavior (i.e., outcome expectancies). Expectancies and efficacy are presumed to be formulated on the basis of prior learning history (direct or vicarious), and are accessed prior to engaging in similar future behavior (Hergenhahn & Olson, 1997).

In the marital literature, Bandura's notion of efficacy is reflected in the construct of *relational efficacy*, or an individuals confidence about the ability of a couple to successfully resolve a range of relationship issues (Doherty, 1981a; Notarius & Vanzetti, 1983). It is hypothesized that relational efficacy determines a couples' persistence in conflict resolution, the styles employed in conflict resolution, and their willingness to engage in discussion of marital problems (Fincham & Bradbury, 1987; Fincham, Bradbury & Grych, 1990).

Notarius and Vanzetti (1983) showed that confidence in resolving a variety of common areas of marital disagreement (e.g., such as showing affection, money, household chores, sex) were significantly correlated with marital satisfaction and attributions of blame for unresolved discussions (Notarius & Vanzetti, 1983), findings that were later replicated (Vanzetti et al., 1992). Specifically, couples with high relational efficacy showed external and unstable causal attributions during marital conflict, whereas couples with low relational efficacy made internal stable and global attributions during marital conflict (Vanzetti et al., 1992).

Building on Bandura's notion of outcome expectancies, Baucom and Epstein (1990) postulate that spouses form expectancies on the basis of previous interactive experience about how their partner will behave in a variety of situations. Two published studies have assessed the impact of expectancies on subsequent interactive behavior. Vanzetti, Notarius and NeeSmith (1992) examined the frequencies of positive and negative partner behaviors predicted for each spouse using pre-interaction checklists. Immediately prior to interaction,

spouses completed a 12-item bipolar adjective checklist predicting how their partner would act during the discussion (e.g. "dominant", "supportive", "calm"). Couples completed two interactional tasks: one on an issue that both partners viewed as a major ongoing problem (high conflict task), and one on a relationship strength (low conflict task). Differences between distressed and nondistressed couples on indices of total expected positive and negative behaviors were assessed in 40 couples. For both interactions, distressed couples expected fewer positive and more negative behavior from their spouse than nondistressed couples. The consistency of results across high and low conflict tasks suggests that expectancies are not limited to difficult issues. Even events that are to focus on positive events are expected to result in higher negativity than positivity. Drawing on Weiss's (1980) sentiment over-ride hypothesis, these researchers argued that individuals have a dominant sentiment regarding their marriage, which determines how a person cognitively processes relationship events and interactions.

Fincham, Garnier, Gano-Phillips and Osborne (1995) argue that cognitive constructs such as expectancies are not merely a measure of an over-riding sentiment of marriage, but contribute unique variance to marital satisfaction over and above dominant sentiments of marriage. Prior to a discussion task, Fincham et al. (1995) asked spouses to rate the likelihood that a range of possible partner behaviors would occur. Partner behaviors included those that were positive (e.g., "My spouse will be supportive of me and my views of the problem") and negative (e.g., "My spouse will not listen fully to what I am saying"). Spouses also indicated the extent to which they were currently experiencing a range of positive and negative affect descriptors (e.g., happy, anxious, and angry). For both males and females, marital satisfaction was significantly correlated with positive and negative expectancies and with pre-interaction affect. Moreover, the association between affect and marital satisfaction became nonsignificant when expected partner behavior was partialed out of the relationship.

These findings suggest that outcome expectancies are not merely epiphenomenal, but mediate the association between marital satisfaction and affect.

Integration

Consistent with the VSA model (Karney & Bradbury, 1995), disparate studies have linked stable historical factors, stressful events, cognitive and emotive processes and relationship satisfaction. Notably, research on the association of enduring vulnerabilities and communication is burgeoning, with available research consistent with the hypothesis that these factors play a significant, though modest, role in determining the quality of couple communication. Preliminary support for higher order hypotheses (involving mediating and moderating effects) is beginning to appear. For example, problem solving moderates the effect of life events on marital satisfaction (Cohan & Bradbury, 1997). This confirms the need to explore couple communication from within a historical and contextual framework.

<u>Implications for the prevention and alleviation of marital distress</u>

Strategies for changing communication patterns have long been an integral part of the most widely researched form of couple therapy, behavioural marital therapy. In this section, we review the nature of behaviorally oriented, communication-focused interventions. We also review the efficacy of interventions, and draw some tentative conclusions about the role of communication skills improvement on relationship satisfaction. Care is needed here because null findings might mean that changing communication doesn't help, or that there are much better ways of delivering such interventions. When effects are evident, it is difficult to conclude that changes in communication skills are the mechanism of change. Many other factors (such as self-selection effects into experimental groups, intervention expectancies) may also account for intervention effects.

Communication skills training has typically been based on the active listening model (Gottman et al., 1998), the listener-speaker exchange (e.g. Notarius & Markman, 1993), and

problem solving training (e.g., Baucom & Epstein, 1990). In turn, these approaches have evolved from client-centered therapy (Guerney, 1977). For example, Jacobson and Gurman (1995) targeted marital communication by training couples in the use of "I statements", turntaking, reflecting and clarifying the partner's requests, and expressing problems noncritically. Baucom and Epstein (1990) define effective problem solving training as defining the problem clearly in behavioral terms, generating alternative solutions, agreeing on a solution, and implementing the solution. Are we training couples in communication methods that are typical of happy couples? For example, when discussing a problem, do happy couples say things like: "I feel really hurt when you don't ask me about my day"... "I wasn't aware of that... do you want to sit down and talk about it?"..."Tell me what's been going on for you"..."So you have been feeling quite alone and unsupported... Have I received that message OK?" It seems unlikely that this is the case. In research by the first author, absolute frequencies of some of these behaviors were found to be small in both distressed and nondistressed couples (even though in some cases there were significant differences). Using interval time sampling and an adaptation of the Interaction Coding System (Osgarby & Halford, 1995), only 12% of intervals during problem solving by happy couples included selfdisclosures (compared to 10% in distressed couples), and 8% of intervals contained positive suggestions (compared to 3% in distressed couples).

Just because most happy couples may not use these sorts of communication skills, doesn't mean that skills training may not be helpful. During driving lessons, the first author was taught how to indicate for several seconds and to check both mirrors twice, before proceeding carefully and slowly to the adjacent lane. While he considers himself a competent and worthy driver (perhaps an irrational belief), these behaviors are no longer prominent in his driving behavior. While real couples don't fit into our communication models particularly well, such interventions may maximize the likelihood of positive reinforcement and minimize

the likelihood of punishment. This may be critical in the early days of marital therapy, when entrenched conflict and minimal positivity may be likely.

Most research on the efficacy of couple interventions has been confined to two intervention options: extended therapy for distressed couples, and brief prevention programs. Traditionally, behavioral couples therapy (BCT) has focused on communication skills training and behavior exchange. Shadish, Ragsdale, Glaser, and Montgomery (1995) assessed the overall effect size for behavioral marital therapy across 27 trials. They found that BCT was associated with an overall effect size of 0.71 (which falls in the medium to large effect size range according to Cohen's conventions; Cohen, 1992). This implies that the average couple who received therapy was better off at the end of treatment than 76% of control couples. Moreover, the effect size for BCT was higher than the effect size for other forms of marital intervention. Shadish et al. (1995) found that the effect size for nonbehavioral treatments was 0.51, which is a medium effect size (Cohen, 1992). However, in Shadish et als. metaanalysis, only one study had a follow-up of over one year. The maintenance of BMT over time is disheartening. Jacobson and Addis (1993) report that one-third of couples who show improvements in BCT by the end of treatment, have relapsed one to two years after therapy. In all, we can expect that around 50% of distressed couples will show significant change that generalizes across time. Communication skills training, at least in its traditional form, is disappointing in its effect on marital satisfaction. Even more sobering is the finding that consumer satisfaction reports of marital therapy are the lowest across many types of psychotherapies (Gottman et al., 1998; Seligman, 1995).

In an attempt to add to the efficacy of traditional BCT, there have been several theoretically driven modulations. Driven by the earlier reviewed research on the role of cognition and emotion have in mediating behavioral responses, cognitive-behavioral couples therapy (CBCT) has been evaluated (e.g., Baucom & Epstein, 1990; Hahlweg & Markman,

1988; Halford, Sanders, & Behrens, 1993). In addition to standard behavioral interventions, Baucom and Epstein focus on challenging the rationality, logic and/or utility of dysfunctional beliefs about marriage, the relationship and the partner, standards about marital conduct, selective attention processes, attributional processes, and expectancies about future marital events (Epstein, Baucom, & Daiuto, 1997). Although CBCT interventions are efficacious compared to no treatment, they don't have significantly higher efficacy than traditional BCT (Baucom & Lester, 1990; Halford et al., 1993). Cognitive and emotional factors may mediate the development of communication problems but perhaps different processes occur in the rectification of these problems. For example, perhaps challenging these beliefs through Socratic dialogue is less effective than behavioral experiments, where sustained changes in behavior eventually erode dysfunctional cognitive and emotional content and process.

Several studies of the effects of communication skills training on newlywed couples are now available (Dyer & Halford, 1998). Typically, communication skills interventions for newlywed couples are presented in different formats than in therapy. They normally involve between four and eight face-to-face group sessions of two to three hour's duration. The focus of these groups is typically communication and conflict management skills training, enhanced positivity of day-to-day exchanges, and the development of realistic and positive relationship cognitions. Relative to no intervention or minimal interventions, newlywed couples show minimal or modest improvements in marital satisfaction in the short term (e.g., Markman, Floyd, Stanley, & Storaasli, 1988; Renick, Blumberg, & Markman, 1992). This may be because relationship satisfaction is high in these populations, or because of ceiling effects in key dependent measures. For example, the Dyadic Adjustment Scale (Spanier, 1976) was designed to evaluate marital distress, rather than to discriminate different levels of happiness (Dyer & Halford, 1998). In the longer term however, one prevention program enhances relationship satisfaction two and five years after its implementation (Hahlweg, Markman,

Thurmaier, Engl, & Eckert, 1998; Markman & Hahlweg, 1993). However, these effects were not replicated with a sample of high-risk couples (van Widenfelt, Hosman, Schaap, & van der Staak, 1996) and in Markman's PREP program, significant effects may be attributable to self-selection effects, given that only one third of couples offered the program did participate.

To hope that communication skills training has discernable long-term effects may be unrealistic. Do couples really remember and apply the lessons learned in communication skills training years later, when marriages are most likely to become distressed? There is an assumption that couples can generalize these skills not only across time, but also to contexts where a host of intra-personal and extra-personal factors may have evolved (or devolved). The available research on the impact of stressful events on marriage suggests that problem solving and support skills interact with stressful events. If we are to adopt a developmental approach to marital quality, adaptation to stressful events (such as career change, financial pressures, having children) may be important. Such stressors may not be have been experienced by newlywed individuals. In the case of newlywed couples, communication skills training may be timely, but a special focus on adapting to specific stressors may be most effective when temporally associated with a stressor. For example, the transition to parenthood is a period associated with declines in marital satisfaction (Belsky, 1985; Belsky & Pensky, 1988: Belsky, Ward, & Rovine, 1986). The first author and colleagues are currently evaluating a program targeting resilience in marital quality over the transition to parenthood (Gavin, Barrett, & Kelly, 1999).

The behavioral research in the first section of the chapter alerts us to some important subtleties that may influence the direction of communication skills training. First, divorcing communication skills from the context in which communication problems are occurring does not fit with the literature. To do this risks training couples to use skills outside of high-risk contexts, where communication skills may be most needed. Furthermore, some skills that

have been traditionally thought of as "good", such as problem solving and the use of humor, may have a detrimental effect on marital satisfaction under some circumstances. To illustrate, in some situations, problem solving may irritate a partner who wants a "listening ear" only. Humor may irritate a distressed partner in certain situations. Also, what might be experienced as negative in the short term, may have long term positive consequences. Such emotions as anger may have a positive impact if channeled in therapy so that they do not communicate belligerence, vindictiveness or stonewalling. This arguably stands in contrast to the traditional BCT approach, where emotions and affect responses signaling anger are considered a target for extinction. What may be more important is to train couples in how to exercise flexibility in regulating their own behavioral responses. This requires a functional approach to couple interaction, rather than the application of a prescriptive set of skills. Finally, interventions designed specifically to foster support between partners are not a feature of behavioral couples interventions, despite evidence that support skills are empirically distinct from problem solving skills, and support skills predict changes in marital satisfaction just as strongly as problem solving skills (Pasch & Bradbury, 1998).

Conclusions

In this chapter, we have provided an overviewed of findings on the association of communication and marital satisfaction, highlighted new and promising behaviourally oriented constructs, explored basic and higher order hypotheses regarding the development of communication problems, and evaluated the role of communication skills training in the couple context. Several conclusions were drawn. While there are certain behaviours and behavioural sequences that increase the likelihood of relationship problems, there is no simple formula for functional communication in couples. The link between communication and satisfaction is likely to vary according to contextual stressors, developmental transitions, gender, and the temporal period over which satisfaction is being predicted.

Current observational techniques are inadequate in several ways. Nonverbal behaviour is crudely measured in many systems, despite findings that this response domain is more important than verbal behaviour in determining couple relationship satisfaction. Coding systems are generally focused on problem solving skills, despite evidence that other behaviours (e.g., support) have an equal and independent weighting in the prediction of marital satisfaction. Many coding systems use individual behaviour as the unit of analysis. However, to explore constructs like support, self-regulation, acceptance, power, connectedness, a dyadic focus is needed. The dyad as the unit of analysis is reflected in some operationalisations we offer to stimulate further research.

Relapse to marital distress is a big problem for couples undergoing communication skills and problem solving training. A focus on extinguishing negatives seems necessary but insufficient for a large proportion of couples in therapy. Observational research points to the value of addressing communication problems within the context of specific stressors, placing a heavier weighting on increasing the ratio of positive to negative behaviours, rather than extinguishing negatives, and increasing support skills in couples. There is a clear need to develop reliable measures of acceptance, power, connectedness and self-regulation. We seem to have put the cart before the horse by designing interventions designed to promote these concepts without first establishing reliable and valid means of assessing them.

References

- Acitelli, L. K., & Antonucci, T. C. (1994). Gender differences in the link between marital support and satisfaction in older couples. <u>Journal of Personality and Social Psychology</u>, 67, 688-698.
- Acitelli, L. K., Douvan, E., & Veroff, J. (1993). Perceptions of conflict in the first year of marriage: How important are similarity and understanding? <u>Journal of Social and Personal Relationships</u>, <u>10</u>, 5-19.
- Atkinson, B. J., & McKenzie, P. N. (1984). The personalized Spouse Observation Checklist:

 A computer-generated assessment of marital interaction. <u>Journal of Marital and Family</u>

 <u>Therapy</u>, 10, 427-429.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change.

 <u>Psychological Review</u>, <u>84</u>, 191-215.
- Bandura, A. (1986). <u>Social foundations of thought and action: A social cognitive theory</u>. Englewood Cliffs, N.J.: Lawrence Erlbaum.
- Barnett, L. R., & Nietzel, M. T. (1979). Relationship of instrumental and affectional behaviors and self-esteem to marital satisfaction in distressed and nondistressed couples.

 Journal of Consulting and Clinical Psychology, 47, 946-957.
- Baucom, D. H., & Epstein, N. (1990). <u>Cognitive-behavioral marital therapy</u>. New Yorki: Brunner/Mazel.
- Baucom, D. H., & Lester, G. W. (1990). The usefulness of cognitive restructuring as an adjunct to Behavioral Marital Therapy. Behavior Therapy, 17, 385-403.
- Baucom, D. H., Sayers, S. L., & Duhe, A. (1989). Attributional style and attributional patterns among married couples. <u>Journal of Personality and Social Psychology</u>, <u>56</u>, 596-607.

- Belsky, J. (1985). Exploring individual differences in marital change across the transition to parenthood: The role of violated expectations. <u>Journal of Marriage and the Family</u>, <u>47</u>, 1037-1044.
- Belsky, J., & Pensky, E. (1988). Marital change across the transition to parenthood.

 Marriage and Family Review, 12, 133-156.
- Belsky, J., Ward, M. J., & Rovine, M. (1986). Prenatal expectations, postnatal experiences, and the transition to parenthood. In R. Ashmore & D. M. Brodzinsky (Eds.), <u>Thinking about the family: Views of parents and children</u> (pp. 119-145). Hillsdale: Erlbaum.
- Biglan, A., Rothlind, J., Hops, H., & Sherman, L. (1989). Impact of distressed and aggressive behavior. <u>Journal of Abnormal Psychology</u>, 98, 218-228.
- Birchler, G. R., Clopton, P. L., & Adams, N. L. (1984). Marital conflict resolution: Factors influencing concordance between partners and trained coders. <u>American Journal of</u>
 Family Therapy, 12, 15-28.
- Birchler, G. R., Weiss, R. L., & Vincent, J. P. (1975). Multimethod analysis of social reinforcement exchange between maritally distressed and nondistressed spouse and stranger dyads. <u>Journal of Personality and Social Psychology</u>, <u>31</u>, 349-360.
- Bolger, N., DeLongis, A., Kessler, R. C., & Wethington, E. (1989). The contagion of stress across multiple roles. Journal of Marriage and the Family, 51, 175-183.
- Bowlby, J. (1969). Attachment and loss. Vol 1. Attachment. New York: Basic Books.
- Bradbury, T. N., & Fincham, F. D. (1987). Assessment of affect in marriage. In K. D. O'Leary (Ed.), <u>Assessment of marital discord: An integration for research and clinical practice</u> (pp. 59-108). New Jersey: Lawrence Erlbaum.

- Bradbury, T.N., & Fincham, F.D. (1993). Assessing dysfunctional cognition in marriage: A reconsideration of the Relationship Belief Inventory. Psychological Assessment: A
 Journal of Consulting and Clinical Psychology, 5, 92-101.
- Broman, C. L., Riba, M. L., & Trahan, M. R. (1996). Traumatic events and marital well-being. <u>Journal of Marriage and the Family</u>, <u>58</u>, 908-916.
- Christensen, A. (1987). Detection of conflict patterns in couples. In K. Hahlweg and M. J. Goldstein (Ed.), Understanding major mental disorder. <u>The contribution of family interaction research</u> (pp. 250-265). New York: Family Process Press.
- Christensen, A. (1988). Dysfunctional interaction patterns in couples. In P. Noller & M. A. Fitzpatrick (Eds.), <u>Perspectives on marital interaction</u>. Clevedon, Avon, England: Multilingual matters.
- Christensen, A., & Heavey, C. L. (1990). Gender and social structure in the demand/withdraw pattern of marital conflict. <u>Journal of Personality and Social Psychology</u>, <u>59</u>, 73-81.
- Christensen, A., & Nies, D. C. (1980). The Spouse Observation Checklist: Empirical analysis and critique. American Journal of Family Therapy, 8, 69-79.
- Christensen, A., & Shenk, J. L. (1991) Communication, conflict, and psychological distance in nondistressed, clinic, and divorcing couples. <u>Journal of Consulting and Clinical</u>

 <u>Psychology</u>, 59, 458-463.
- Cohan, C. L., & Bradbury, T. N. (1997) Negative life events, marital interaction, and the longitudinal course of newlywed marriage. <u>Journal of Personality and Social Psychology</u>, <u>73</u>, 114-128.
- Cohen, J. (1992). A power primer. Psychological Bulletin, 112, 155-159.
- Coyne, J. C., & Downey, G. (1991). Social factors and psychop0athology: Stress, support, and coping processes. <u>Annual Review of Psychology</u>, 42, 401-425.

- Culp, L. N., & Beach, S. R. H. (1998). Marriage and depressive symptoms:

 The role and bases of self-esteem differs by gender. <u>Psychology of Women Quarterly</u>, 22, 647-663.
- Cummings, E. M., & Davies, P. (1994). Children and marital conflict: The impact of family dispute and resolution. New York: Guilford.
- Cutrona, C. E. (1996). Social support as a determinant of marital quality: The interplay of negative and supportive behaviors. In G. R. Pierce, B. R. Sarason, I. G. Sarason (Eds.), Handbook of social support and the family (pp. 3-23). New York: Plenum.
- Cutrona, C. E., & Suhr, J. A. (1994). Social support communication in the context of marriage: An analysis of couples' supportive interactions. In B. R. Burleson, T. L.
 Albrecht, & I. G. Sarason (Eds.), <u>Communication of social support: Messages</u>, interactions, relationships, and community (pp. 113-135). Thousand Oaks, CA: Sage.
- De Guilbert-Lantoine, C., & Monnier, A. (1992). La con joncture demognishique: L'Europe et les pays developpes d'Outre-Mer. <u>Population</u>, July-August.
- Doherty, W. J. (1981). Cognitive processes in intimate conflict: II. Efficacy and learned helplessness. American Journal of Family Therapy, 9, 35-44.
- Dyer, C., & Halford, W. K. (1998). Prevention of relationship problems: Retrospect and prospect. <u>Behavior Change</u>, <u>15</u>, 107-125.
- Eidelson, R. J., & Epstein, N. (1982). Cognition and relationship maladjustment:

 Development of a measure of dysfunctional relationship beliefs. <u>Journal of Consulting</u>

 and Clinical Psychology, <u>50</u>, 715-720.
- Ellis, A. (1976). The rational-emotive view. <u>Journal of Contemporary Psychotherapy</u>, <u>8</u>, 20-28.

- Elwood, R. W., & Jacobson, N. S. (1982). Spouses' agreement in reporting their behavioral interactions: A clinical replication. <u>Journal of Consulting and Clinical Psychology</u>, <u>50</u>, 783-784.
- Elwood, R. W., & Jacobson, N. S. (1988). The effects of observational training on spouse agreement about events in their relationship. <u>Behavior Research and Therapy</u>, 26, 159-167.
- Epstein, N. B., Baucom, D. H., & Daiuto, A. (1997) Cognitive-behavioral couples therapy.

 In W. K. Halford & H. Markman (Eds.), The clinical handbook of marriage and couples interventions (pp.415-449). Brisbane: Wiley.
- Eysenck, H. J. (1967). The biological basis of personality. Springfield, Il: Charles C Thomas.
- Fantuzzo, J., DePaola, L. M., Lambert, L., Martino, T., Anderson, G., & Sutton, S. (1991).

 Effects of interparental violence on the psychological adjustment and competencies of young children. Journal of Consulting and Clinical Psychology, 59, 258-265.
- Fichten, C. S., & Wright, J. (1983). Problem-solving skills in happy and distressed couples: Effects of videotape and verbal feedback. Journal of Clinical Psychology, 39, 340-352.
- Filsinger, E. E., & Thoma, S. J. (1988). Behavioral antecedents of relationship stability and adjustment: A five-year longitudinal study. <u>Journal of Marriage and the Family</u>, <u>50</u>, 785-795.
- Fincham, F.D. (in press). Attributions and close relationships: From balkanization to integration. In G.J. Fletcher & M. Clark (Eds.), <u>Blackwell handbook of social psychology</u>. Oxford: Blackwells.
- Fincham, F.D., & Beach, S.R. (in press). Marriage in the new millenium: Is there a place for social cognition in marital research? Journal of Social and Personal Relationships.

- Fincham, F. D., Beach, S. R. H., & Kemp-Fincham, S. I. (1997). Marital quality: A new theoretical perspective. In R. J. Sternberg & M. Hojjat (Eds.), <u>Satisfaction in close relationships</u> (pp. 275-306). New York: Guilford.
- Fincham, F. D., & Bradbury, T. N. (1987). Cognitive processes and conflict in close relationships: An attribution-efficacy model. <u>Journal of Personality and Social Psychology</u>, <u>53</u>, 1106-1118.
- Fincham, F. D., & Bradbury, T. N. (1993). Marital satisfaction, depression, and attributions:

 A longitudinal analysis. Journal of Personality and Social Psychology, 64, 442-452.
- Fincham, F. D., Bradbury, T. N., & Grych, J. H. (1990). Conflict in close relationships: The role of intrapersonal phenomena. In S. Graham & V. S. Folkes (Eds.), <u>Attribution</u>

 theory: Applications to achievement, mental health, and interpersonal conflict. Applied social psychology (pp. 161-184). New Jersey: Lawrence Erlbaum.
- Fincham, F. D., Bradbury, T. N., Arias, I., Byrne, C. A., & Karney, B. R. (1997). Marital violence, marital distress, and attributions. <u>Journal of Family violence</u>, <u>11</u>, 367-372.
- Fincham, F. D., Garnier, P. C., Gano-Phillips, S., & Osborne, L. N. (1995). Preinteraction expectations, marital satisfaction, and accessibility: A new look at sentiment override.

 <u>Journal of Family Psychology</u>, 9, 3-14.
- Floyd, F. J. (1989). Segmenting interactions: Coding units for assessing marital and family behaviors. <u>Behavioral Assessment</u>, <u>11</u>, 13-29.
- Floyd, F. J., & Markman, H. J. (1983). Observational biases in spouse observation: Toward a cognitive-behavioral model of marriage. <u>Journal of Consulting and Clinical Psychology</u>, 51, 460-467.
- Gavin, L., Barrett, P., & Kelly, A. B. (1999). A behaviourally-based preparatory program for families having their first child. Unpublished manuscript: Griffith University.

- Gottman, J. M. (1979). Detecting cyclicity in social interaction. <u>Psychological Bulletin</u>, <u>86</u>, 338-348.
- Gottman, J. M. (1993). The roles of conflict engagement, escalation, and avoidance in marital interaction: A longitudinal view of five types of couples. <u>Journal of Consulting and Clinical Psychology</u>, <u>61</u>, 6-15.
- Gottman, J. M. (1994). What predicts divorce. Hillsdale, NJ: Erlbaum.
- Gottman, J. M., Coan, J., Carrerre, S., & Swanson, C. (1998). Predicting marital happiness and stability from newlywed interactions. Journal of Marriage and the Family, 60, 5-22.
- Gottman, J. M., & Krokoff, L. J. (1989). Marital interaction and satisfaction: A longitudinal view. Journal of Consulting and Clinical Psychology, 57, 47-52.
- Gottman, J. M., Markman, H. J., & Notarius, C. I. (1977). The topography of marital conflict:

 A sequential analysis of verbal and nonverbal behavior. <u>Journal of Marriage and the</u>

 <u>Family</u>, 49, 461-477.
- Gottman, J.M., McCoy, K., Coan, J., & Collier, H. (1996). The Specific Affect Coding

 System (SPAFF). In J.M. Gottman (Ed.), What predicts divorce?: The measures (pp. 1169). Mahwah, NJ: Erlbaum.
- Gray-Little, B., & Burks, N. (1983). Power and satisfaction in marriage: A review and critique. <u>Psychological Bulletin</u>, <u>93</u>, 513-538.
- Gray-Little, B. (1982). Marital quality and power process among black couples. <u>Journal of Marriage and the Family</u>, <u>44</u>, 633-646.
- Grych, J. H., & Fincham, F. D. (1990). Marital conflict and children's adjustment: A cognitive-contextual framework. <u>Psychological Bulletin</u>, 108, 267-290.
- Grych, J. H., & Fincham, F. D. (1992). Interventions for children of divorce: Towards greater integration of research and action. *Psychological Bulletin*, 111, 434-454.
- Guerney, B. G. Jr (1977). Relationship Enhancement. San Francisco: Jossey-Bass.

- Hahlweg, K., & Markman, H. J. (1988). The effectiness of behavioral marital therapy:

 Empirical status of behavioral techniques in preventing and alleviating marital distress.

 Journal of Consulting and Clinical Psychology, 56, 440-447.
- Hahlweg, K., Markman, H. J., Thurmaier, F., Engl, J., & Eckert, V. (1998). Prevention of marital distress: Results of a German prospective longitudinal study. <u>Journal of Family Psychology</u>, <u>12</u>, 543-556.
- Halford, W. K., Gravestock, F. M., Lowe, R., & Scheldt, S. (1992) Toward a behavioral ecology of stressful marital interactions. Behavioral Assessment, 14, 199-217.
- Halford, W. K., Sanders, M. R., & Behrens, B. C. (1993). A comparison of the generalisation of behavioral marital therapy and enhanced behavioral marital therapy, <u>Journal of Consulting and Clinical Psychology</u>, <u>61</u>, 51-60.
- Halford, W. K., Sanders, M. R., & Behrens, B. C. (1994). Self-regulation in behavioral couples therapy. <u>Behavior Therapy</u>, 25, 431-452.
- Halford, W. K., Sanders, M. R., & Behrens, B. C. (1999). Repeating the errors of our parents? Family of origin spouse violence and observed conflict management in engaged couples. Manuscript submitted for publication.
- Heavey, C. L., Christensen, A., & Malamuth, N. M. (1995). The longitudinal impact of demand and withdrawal during marital conflict. <u>Journal of Consulting and Clinical</u> <u>Psychology</u>, <u>63</u>, 797-801.
- Heavey, C. L., Layne, C., & Christensen, A. (1993). Gender and conflict structure in marital interaction: A replication and extension. <u>Journal of Consulting and Clinical Psychology</u>, 61, 16-27.
- Hergenhahn, B. R., & Olson, M. H. (1997). <u>An introduction to theories of learning</u> (4th ed.). Englewood Cliffs, New Jersey: Prentice-Hall.

- Heyman, R. E., Weiss, R. L., & Eddy, J. M. (1995). Marital interaction coding system: Revision and empirical validation. Behavior Research and Therapy, 33, 737-746.
- Hill, R. (1949). Families under stress. New York: Harper.
- Horneffer, K.J., & Fincham, F.D. (1995). The construct of attributional style in depression and marital distress. Journal of Family Psychology, 9, 186-195.
- Horney, K. (1942). Self-analysis. New York: Norton.
- Howard, J.W., & Dawes, R.M. (1976). Linear prediction of marital happiness. <u>Personality</u> and <u>Social Psychology Bulletin</u>, <u>2</u>, 478-480.
- Jacobson, N. S. (1989). The politics of intimacy. The Behavior Therapist, 12, 29-32.
- Jacobson, N. S. (1992). Behavioral couple therapy: A new beginning. <u>Behavior Therapy</u>, <u>23</u>, 493-506.
- Jacobson, N. S., & Christensen, A. (1996). <u>Integrative couple therapy: Promoting acceptance</u> and change. New York: Norton.
- Jacobson, N. S., & Addis, A. (1993). Research on couples and couple therapy. What do we know? Where are we going? <u>Journal of Consulting and Clinical Psychology</u>, <u>61</u>, 85-93.
- Jacobson, N. S., & Gurman, A. S. (1995). <u>Clinical Handbook of couple therapy</u>. New York: Guilford.
- Johnson, D. R., & Booth, A. (1998). Marital quality: A product of the dyadic environment or individual factors? <u>Social Forces</u>, 76, 883-904.
- Julien, D., & Markman, H. J. (1991). Social support and social networks asd determinants of individual and marital outcomes. <u>Journal of Social and Personal Relationships</u>, <u>8</u>, 549-568.
- Julien, D., Markman, H. J., Lindahl, K. M. (1989). A comparison of a global and a microanalytic coding system: Implications for future trends in studying interactions. <u>Behavioral Assessment</u>, <u>11</u>, 81-100.

- Julien, D., Markman, H. J., Lindahl, K. M., Johnson, van Widenfelt, B. (1987). Interactional Dimensions Coding System.: Researchers manual. Unpublished manuscript: University of Denver.
- Karney, B. R., & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, method, and research. <u>Psychological Bulletin</u>, 118, 3 34.
- Karney, B. R., & Bradbury, T. N. (1997). Neuroticism, marital interaction, and the trajectory of marital satisfaction. Journal of Personality and Social Psychology, 72, 1075-1092.
- Karoly, P. (1993). Mechanisms of self-regulation: A systems view. <u>Annual Review of Psychology</u>, 44, 23-52.
- Kelly, A. B., & Fincham, F. D. (1999). The association of enduring vulnerabilities and communication problems in newly wed couples. Unpublished manuscript.
- Kelly, A. B., & Fincham, F. D. (1998). Marital health: Towards a more complete account of functional and satisfying couple relationships. <u>Encyclopedia of Mental Health</u>. Vol 2 (pp. 605-619). San Diego: Academic Press.
- Kelly, A. B., & Halford, W. K. (1995). The generalization of behavioural marital therapy to behavioral, cognitive and physiological domains. <u>Cognitive and Behavioural</u> <u>Psychotherapy</u>, <u>23</u>, 381-398.
- Kelly, E. L., & Conley, J. J. (1987). Personality and compatibility: A prospective analysis of marital stability and marital satisfaction. <u>Journal of Personality and Social Psychology</u>, 52, 27-40.
- Kiecolt-Glaser, J. K., Fisher, L. D., Ogrocki, P., Stout, J. C., Speicher, C. E., & Glaser, R. (1987). Marital quality, marital disruption, and immune function. Psychosomatic Medicine, 49, 13 34.

- Kiecolt-Glazer J. K., Newton, T., Cacioppo, J.T., MacCallum, R. C, Glaser R. (1996). Marital conflict and endocrine function: Are men really more physiologically affected than women? <u>Journal of Consulting and Clinical Psychology</u>, 64, 324-32
- Klinetob, N. A., & Smith, D. A. (1996). Demand-withdraw communication in marital interaction: Tests of interspousal contingency and gender role hypotheses. <u>Journal of Marriage and the Family</u>, <u>58</u>,945-957.
- Kollock, P., Blumstein, P., & Schwartz, P. (1985). Sex and power in interaction:

 Conversational privileges and duties. <u>American Sociological Review</u>, <u>50</u>, 34-46.
- Krokoff, L. J. (1987). The correlates of negative affect in marriage: An exploratory study of gender differences. <u>Journal of Family Issues</u>, <u>8</u>, 111-135.
- Krokoff, L. J., Gottman, J. M., & Roy, A. K. (1988). Blue collar marital interaction and a companionate philosophy of marriage. <u>Journal of Personal and Social Relationships</u>, <u>5</u>, 201-221.
- Krokoff, L. J., Gottman, J. M., & Hass, S. D. (1989). Validation of a global rapid couples interaction scoring system. Behavioral Assessment, 11, 65-79.
- Lasch, C. (1979). <u>The Culture of narcissism: American life n an age of diminishing</u> expectations. New York: Norton.
- Lawrence, E., Eldridge, K., Christensen, A., & Jacobson, N. S. (1999). Integrative couple therapy: The dyadic relationship of acceptance and change. In J. M. Donovan (Ed.),

 Short-term couple therapy: The Guilford family therapy series (pp.226-261). New York: Guilford.
- Levenson, R. W., & Gottman, J. M. (1983). Marital interaction: Physiological linkage and affective exchange. Journal of Personality and Social Psychology, 45, 587-597.

- Levenson, R. W., & Gottman, J. M. (1985) Physiological and affective predictors of change in relationship satisfaction. <u>Journal of Personality and Social Psychology</u>, <u>49</u>, 85-94.
- Malarkey, W. B., Kiecolt-Glaser, J. K., Pearl, D., & Glaser, R. (1994). Hostile behavior during marital conflict alters pituitary and adrenal hormones. <u>Psychosomatic Medicine</u>, 56, 41-51.
- Margolin, G., & Wampold, B. E. (1981). Sequential analysis of conflict and accord in distressed and nondistressed marital partners. <u>Journal of Consulting and Clinical</u> <u>Psychology</u>, <u>49</u>, 554-567.
- Margolin, G., Burman, B., & John, R. S. (1989). Home observations of married couples reenacting naturalistic conflicts. Behavioral Assessment, 11, 101-118.
- Margolin, G., John, R. S., & Gleberman, L. (1989). Affective responses to conflictual discussion in violent and nonviolent couples. <u>Journal of Consulting and Clinical Psychology</u>, <u>56</u>, 24-33.
- Margolin, G., Talovic, S., & Weinstein, C. D. (1983). Areas of Change Questionnaire: A practical approach to marital assessment. <u>Journal of Consulting and Clinical Psychology</u>, <u>51</u>, 920-931.
- Markman, H. J., Floyd, F. J., Stanley, S. M., & Storaasli, R. D. (1988). Prevention of marital distress: A longitudinal investigation. <u>Journal of Consulting and Clinical Psychology</u>, <u>56</u>, 210-217.
- Markman, H. J., & Hahlweg, K. (1993). The prediction and prevention of marital distress: An international perspective. <u>Clinical Psychology Review</u>, <u>56</u>, 210-217.
- Markman, H. J., & Notarius, C. I. (1987). Coding marital and family interaction: Current status. In T. Jacob (Ed.), <u>Family interaction and psychopathology: Theories, methods, and findings</u> (pp. 329-390). New York: Plenum.

- McCrae, R. R., Costa, P. T., & Busch, C. M. (1986). Evaluating comprehensiveness in personality systems: The California Q-set and the five factor model. <u>Journal of Personality</u>, <u>54</u>, 430-446.
- McCubbin, H. I., & Patterson, J. M. (1982). Family adaptation to crises. In H. I.

 McCubbin, A. E. Cauble, & J. M. Patterson (Eds.), <u>Family stress</u>, <u>coping</u>, and <u>social</u>

 <u>support</u> (pp.26-47). Springfield, IL: Charles C Thomas.
- McDonald, P. (1995). <u>Families in Australia: A sociodemographic perspective. Melbourne.</u>

 Australian Institute of Family Studies.
- Minuchin, S. (1974). <u>Families and family therapy</u>. Cambridge, MA: Harvard University Press.
- Murray, S. L., Holmes, J. G., & Griffin, D. W. (1996). The benefits of positive illusions:

 Idealization and the construction of satisfaction in close relationships. <u>Journal of Personality and Social Psychology</u>, <u>70</u>, 79-98.
- National Committee on Violence. (1990). <u>Violence: Directions for Australia</u>. Canberra: Australian Institute of Criminology.
- Nelson, G. M., & Beach, S. R. H. (1990). Sequential interaction in depression: Effects of depressive behavior on spousal agression. Behavior Therapy, 12, 167-182.
- Notarius, C. I., & Johnson, J. S. (1982). Emotional expression in husbands and wives.

 <u>Journal of Marriage and the Family</u>, <u>44</u>, 483-489.
- Notarius, C. I., & Markman, H. J. (1993). We can work it out. New York: Putman.
- Notarius, C. I., & Vanzetti, N. A. (1983). The marital agendas protocol. In E.Filsinger (Ed.), Marriage and family assessment: A sourcebook for family therapy. Beverley Hills: Sage.
- Osgarby S. M. (1998). Positive exchange and memory in marital interaction. Unpublished Doctoral Thesis, Department of Psychiatry, University of Queensland.

- Osgarby, S. M. & Halford, W. K. (1995). Problem solving and positive reminiscence interaction coding manual. Behaviour Research and Therapy Centre, Department of Psychiatry, University of Queensland.
- Overall, J. E., Henry, B. W., & Woodward, A. R. (1974). Dependence of marital problems on parental family history. Journal of Abnormal Psychology, 83, 446-450.
- Pasch, Bradbury, T. N., & Sullivan (1997). Social support interaction coding system. UCLA Newlywed Project. Available on the World Wide Web at http://www.lifesci.ucla.edu/resources/mewed/ss.htm.
- Pasch, L. A., & Bradbury, T. N. (1998). Social support, conflict, and the development of marital dysfunction. Journal of Consulting and Clinical Psychology, 66, 219-230.
- Phelps, M. A., & Jacobson, N. S. (1998). Integrative couple therapy: Balancing change and acceptance. Crisis Intervention, 4, 49-66.
- Renick, M., Blumberg, S. L., & Markman, H. J. (1992). The prevention and Relationship

 Enhancement Program (PREP): An empirically based preventive intervention program for
 couples. <u>Family Relations</u>, <u>41</u>, 141-147.
- Revensdorf, D., Hahlweg, K., Schindler L., & Vogel, B. (1984). Interaction analysis of marital conflict. In K. Hahlweg and N. S. Jacobson (Eds.), <u>Marital interaction: Analysis and modification</u> (pp.159-181). New York: Guilford Press.
- Reynolds, I., Rizzo, D., Gallagher, H., & Speedy, B. (1979). <u>Psychosocial problems of Sydney adults</u>. Sydney: Health Commission of New South Wales.
- Roberts, L. J., & Krokoff, L. J. (1990). A time-series analysis of withdrawal, hostility, and displeasure. <u>Journal of Marriage and the Family</u>, <u>52</u>, 229-236.
- Sarason, I. G., Sarason, B. R., & Pierce, G. R. (1994). Social support: Global and relationship-based levels of analysis. <u>Journal of Social and Personal Relationships</u>, <u>11</u>, 295-312.

- Sayers, S. L., Baucom, D. H., Sher, T. G., Weiss, R., & Heyman, R. E. (1991). Constructive engagement, behavioral marital therapy, and changes in marital satisfaction. <u>Behavioral Assessment</u>, 13, 25-49.
- Schaap, C. (1982). <u>Communication and adjustment in marriage</u>. Lisse, the Netherlands: Swets & Zeitlinger.
- Schaap, C. (1984). Conflicthantering en huwelijkssatisfactie. / Conflict resolution and marital satisfaction. Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden, 39, 396-403.
- Schaap, C., Buunk, B., & Kerkstra, A. (1988). Marital conflict resolution. In P. Noller & M. A. Fitzpatrick (Eds.), <u>Perspectives on marital interaction</u>. Clevedon, Avon, England: Multilingual matters.
- Schmidt, F. L. (1992). What do data really mean? Research findings, meta-analysis, and cumulative knowledge in psychology. American Psychologist, 47, 1173-1181.
- Seligman, M. E. P. (1995). The effectiveness of psychotherapy: The Consumer Reports study. American Psychologist, 50, 965-974.
- Shadish, W. R., Ragsdale, K., Glaser, R. R. & Montgomery, L. M. (1995). The efficacy and effectiveness of marital and family therapy: A perspective from meta-analysis.. <u>Journal of Marital and Family Therapy</u>, 21, 345-360.
- Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. <u>Journal of Marriage and the Family</u>, <u>38</u>, 15-28.
- Straus, M. A., & Gelles, R. (1986). Societal change and change in family violence from 1975 to 1985 as revealed by two national surveys. <u>Journal of Marriage and the Family</u>, <u>48</u>, 465-479.b
- Straus, M. A., Gelles, R., & Steinmetz, S. K. (1980). <u>Behind closed doors: Vilence in the American Family</u>. New York: Doubleday.

- Szinovacz, M. E. (1981). Relationship among marital power measures: A critical review and an empirical test. Journal of Comparative Family Studies, 12, 151-169.
- van Widenfelt, B., Hosman, C., Schaap, C., & van der Staak, C. (1996). Prevention of relationship distress for couples at risk: A controlled evaluation with nine month and two year follow-up. Family Relations, 45, 1-10.
- Vanzetti, N. A., Notarius, C. I., & NeeSmith, D. (1992). Specific and generalized expectancies in marital interaction. <u>Journal of Family Psychology</u>, 6, 171-183.
- Vincent, J. P., Friedman, L. C., Nugent, J., & Messerly, L. (1979). Demand characteristics in observations of marital interaction. . <u>Journal of Consulting and Clinical Psychology</u>, <u>47</u>, 557-566.
- Smith, D. A., Vivian, D., & O'Leary, K. D. (1990). Longitudinal prediction of marital discord from premarital expressions of affect. <u>Journal of Consulting and Clinical Psychology</u>, <u>58</u>, 790-798
- Watson, D., & Clark, L. A. (1984). Negative affectivity: The disposition to experience aversive emotional states. Psychological Bulletin, 96, 465-490.
- Weiss, R. L. (1980). Strategic marital therapy: Toward a model for assessment and intervention. In J. P. Vincent (Ed.), <u>Advances in family intervention</u>, assessment and therapy (Vol. 1, pp.229-271). Greenwich, CT: JAI Press.
- Weiss, R. L. (1989). The circle of voyeurs: Observing the observers of marital and family interactions. <u>Behavioral Assessment</u>, <u>11</u>, 135-147.
- Weiss, R. L., & Heyman, R. E. (1990). Observation of marital interaction. In F. D. Fincham & T. N. Bradbury (Eds.), The psychology of marriage (pp. 87-118). New York: Guilford.
- Weiss, R. L., & Heyman, R. E. (1997). A clinical-research overview of couple interactions.

 In W. K. Halford & H. Markman (Eds.), The clinical handbook of marriage and couples interventions (pp.13-41). Brisbane: Wiley.

- Weiss, R. L., & Tolman, A. O. (1990). The Marital Interaction Coding System-Global (MICS-G): A global companion to the MICS. Behavioral Assessment, 12, 271-294.
- Whiffen, V. E., & Gotlib, I. H. (1989). Stress and coping in maritally distressed and nondistressed couples. Journal of Social and Personal Relationships, 6, 327-344.
- Whisman, M. A., & Jacobson, N. S. (1990). Power, marital satisfaction, and response to marital therapy. <u>Journal of Family Psychology</u>, 4, 202-212.
- Wills, T. A., Weiss, R. L., & Patterson, G. R. (1974). A behavioral analysis of the determinants of marital satisfaction. <u>Journal of Consulting and Clinical Psychology</u>, <u>42</u>, 802-811.
- Woody E. Z. & Costanzo, P. R. (1990). Does marital agony precede marital ecstacy? A comment on Gottman and Krokoff's "Marital interaction and satisfaction: A longitudinal view". <u>Journal of Consulting and Clinical Psychology</u>, <u>58</u>, 499-501.