Marital quality: A new theoretical perspective

Frank D. Fincham*
University of Wales, Cardiff

Steven R.H. Beach
University of Georgia

Susan I. Kemp-Fincham
University of Wales, Cardiff

Address correspondence to:
Frank Fincham,
School of Psychology,
University of Wales, Cardiff,
P.O. Box 901, Cardiff CF1 3YG,
Great Britain
(e-mail: sapff@cardiff.ac.uk)
Changing economic and social circumstances at the turn of the century called public attention to problems in family relationships. Although initial research on the marital relationship focused on sexual problems, the most frequently studied aspect of this relationship concerns what has been variously labelled marital satisfaction, adjustment, success, happiness, companionship or some synonym reflective of the quality of the marriage. This is perhaps not surprising because approximately 40% of the problems for which people seek professional help in the USA concern dissatisfaction with their spouse/marriage (Veroff, Kulka & Douvan, 1981) and the deleterious effects of such problems on mental and physical health are well documented (Borman & Margolin, 1992; Fincham, in press; Gotlib & McCabe, 1990). Notwithstanding the attention paid to it, the concept of marital quality remains poorly understood. The present chapter therefore offers a new conception of marital quality that is designed to address problems in prior work and ground the construct more firmly in the broader psychological literature, particularly research on attitudes. Before turning to our analysis we first provide a brief overview of current knowledge regarding marital quality that highlights the need for a new approach to the concept.

Marital quality: Current status

Marital quality has gained the attention of researchers from a number of disciplines and the literature on this topic is vast. Rather than attempt to provide a review of pertinent theory and research (for a review see Glenn, 1990), we highlight features of the literature that lead us to offer a new conception of marital quality.

The first important feature of writings on marital quality is that they focus almost exclusively on Western, and more particularly, North American marriages. This is both a strength and weakness. It is a strength in that there is a widespread agreement, though not consensus, in North American society that marriage is primarily for the benefit of the spouses rather than the extended family, society, the ancestors, deity or deities, and so on. Widespread agreement on the hedonic purpose of marriage has the potential to simplify the task of researchers engaged in assessing and understanding marital quality and thereby promote advances in understanding. On the other hand, there is the strong temptation to insert in our measures of marital quality items that may not be applicable in other cultures. For example, an assessment of marital quality that asks who the respondent would marry if she had her life to live over again (as in one of the most widely used measures of marital quality, the Marital Adjustment Test, Locke & Wallace, 1959), is clearly not applicable in cultures where arranged marriages are accepted practice. Likewise, questions assessing degree of interspousal agreement may be poor indicators of marital quality in cultures where open disagreement with a spouse is discouraged. Although no single set of items assessing marital quality is likely to have universal applicability, how marital quality is defined will determine the potential applicability of the concept across cultures.

Second, the literature on marital quality is characterized by a lack of adequate theory. As will become increasingly evident in the paragraphs below, conceptual confusion is widespread. In addressing this issue, some scholars have even called for elimination of such terms as marital satisfaction and marital adjustment (Lively, 1969; Trost, 1985). This feature of the literature most likely reflects the fact that research on marital quality has never been heavily theoretical. As Glenn (1990) points out in his review, most research is justified on practical grounds "with elements of theory being brought in on an incidental, ad hoc basis" (p. 818). Lack of attention to theory has had unfortunate consequences. For example, Spanier (1976) eliminated items from his influential measure when they were positively skewed thereby assuming that items reflective of marital quality approximate a normal distribution. But as Norton (1983) points out, such items may be less critical indicators or even irrelevant to marital quality if marital quality inherently involves skewed data because spouses tend to report "happy" marriages. Moreover, if the outcome predicted by marital quality is itself skewed (e.g., aggression), then a
skewed predictor may be best (Heyman, Sayers & Bellack, 1994).

Third, the relative absence of adequate theory is reflected in the disjuncture that exists between theoretical statements and measures of marital quality. There are many measures of marital quality available but few appear to be derived from theory. Moreover, where there is a theoretical foundation, the link between the theory and the measure is often tenuous. For example, the widely used Dyadic Adjustment Scale defines adjustment as both a process and an outcome of the same process creating substantial conceptual difficulties. The relative lack of adequate theory is less of a problem when measures are derived empirically and, on the basis of actuarial data, promote the development of a theoretical framework. However, as Snyder (1982) notes, the absence of naturally occurring criterion groups limits the use of a purely empirical approach to establishing the validity of measures of marital quality. In any event, even empirically constructed measures of marital quality are inadequate, as actuarial data relating to them is the exception rather than the rule.

Fourth, it is not clear what most instruments of marital quality actually measure. Most frequently, measures comprise a polyglot of items and responses to them are not conceptually equivalent. For example, widely used measures (e.g., Marital Adjustment Test, Locke & Wallace, 1959; Dyadic Adjustment Scale, Spanier, 1976) include a variety of items ranging from reports of specific behaviors that occur between spouses to evaluative inferences regarding the marriage as a whole. Typically, an overall score is computed by summing over the items but it is not clear how such a score should be interpreted. Although this problem was identified in the marital literature over 25 years ago (see Nye & McDougall, 1959), it remains an issue. Dahlstrom (1969) describes three levels at which responses to self report inventories can be interpreted: they can be seen (a) as veridical descriptions of behavior (e.g., responses regarding frequency of disagreement reflect the actual rate of disagreement between spouses), (b) as potential reflections of attitudes (e.g., frequently reported disagreement may reflect high rates of disagreement but may also reflect the view that the partner is unreasonable, that the spouse feels undervalued or some other attitude), and (c) as behavioral signs the meaning of which can only be determined by actuarial data (e.g., rated disagreement may reflect time spent together, respondent's self esteem, frequency of intercourse or a host of other variables). Few measures of marital quality address the level at which responses are to be interpreted.

Fifth, our knowledge base of the determinants and correlates of marital quality includes (an unknown number of) spurious findings. This is because of overlapping item content in measures of marital quality and measures of constructs examined in relation to marital quality. For example, Banmen and Vogel (1985) found a significant association between communication (e.g., Marital Communication Inventory, Bienvenu, 1970; e.g., "Do the two of you argue a lot over money?"; "Do you and your and your spouse engage in outside activities together?") and marital quality (Dyadic Adjustment Scale, Spanier, 1976; "Indicate the extent of agreement or disagreement between you and your partner on: handling family finances", "Do you and your mate engage in outside interests together"). The resulting tautological association hinders theory construction and affects the credibility of research findings. Fincham and Bradbury (1987) discuss the dilemma caused by overlapping item content at some length showing that exclusion of the items common to both measures does not provide a satisfactory solution to this problem as they usually reflect overlap in the definition of the constructs. Such a problem seems to be the inevitable consequence of an atheoretical and ad hoc approach in defining and assessing marital quality.

Finally, it is critical to note that with rare exceptions, marital quality is assessed via self-report. Ironically, even behaviorally oriented psychologists who rejected the utility of self report when they began to study marriage systematically in the 1970s used self-reports of marital quality as a criterion variable in their studies. Indeed, a primary goal was to account for variability in such reports of marital quality. This
feature of the marital quality literature is important when considering the
two dominant approaches to studying marital quality over the last 20 years.
One approach has been to view marital quality as a characteristic of the
relationship between spouses instead of, or in addition to, the spouses
feelings about the marriage. This approach favored use of such terms as
adjustment and was particularly dominant in the 1970s (Spanier & Lewis,
1980). However, it is questionable whether spouses are the best, or even
good, reporters of relationship properties. It is clear that spouses often
do not agree even on such basic issues as how often they have sex (footnote
1). Self-report seems better suited to the second major approach to marital
quality which focuses on how married persons feel about their marriage.
This approach has used such terms as marital satisfaction and marital
happiness and has become more widespread in the 1980s.

Although the picture painted thus far appears somewhat gloomy, it
need not necessarily be viewed in this way. On the contrary, there has been
considerable progress over the last 15 years in explaining variance in
marital quality and especially in the increased psychometric sophistication
of measures of marital quality (for a review see Fincham et al., 1993).
Indeed, some scholars have concluded that the "psychometric foundation is
reasonably solid and need not be redone" (Gottman & Levenson, 1984, p. 71).
The basis for such a conclusion appears to be the fact that different
measures of marital quality intercorrelate highly suggesting that
differences in item content across measures are relatively unimportant
(e.g., Heyman et al., 1994). In fact, "different operations designed to
measure marital satisfaction converge and form one dimension" (Gottman,
1979, p. 5).

Such conclusions are quite reasonable for some research purposes. For
instance, they suffice if the goal is to select "happy" or "satisfied"
versus "unhappy" or "dissatisfied" spouses as is often done in clinical
research on marriage. Here the exact content of the measure used to select
groups is less important than its ability to identify correctly the groups
of interest. However, to the extent that one's goal is to develop theory
for advancing understanding of marital quality or to devise conceptually
sound measures of marital quality, the above conclusion is less
appropriate.

Accepting that current conceptions and operationalizations of marital
quality are adequate for all purposes is based on an assumption that
constructs related at the empirical level are equivalent at the conceptual
level. This can lead to a problem that is demonstrated by considering the
example of height and weight. These two dimensions correlate to about the
same degree as many measures of marital quality, yet much is gained by
keeping height and weight separate. Imagine designing a door frame having
only a composite measure of the "bigness" of users and not their height!
Keeping empirical and conceptual levels of analyses separate has the
advantage of forcing the researcher to articulate the nature of the
construct and the domain of observables to which it relates before
developing measures of the construct. Such practices are likely to
facilitate theoretical development and the construction of more easily
interpreted measures of marital quality. In addition, careful
conceptualization of the construct of marital quality creates an
opportunity to develop theoretically based and empirically robust
dimensions of marital quality that may meet the need for identifying
"subtypes" of couples (footnote 2).

In sum, the concept of marital quality has received a great deal of
attention from social scientists. Although researchers have made
considerable progress in measuring and explaining variability in marital
quality, they have failed to specify adequately the subject of their
inquiries while at the same time proceeding as though the referent for the
construct were clear. It can be argued that at the level of measurement the
referent is clear owing to the widespread use of a limited number of
instruments (most often the Marital Adjustment Test and the Dyadic
Adjustment Scale). However, the interpretation of scores obtained from
these measures is far from clear. We therefore offer a new conception of
marital quality in the remainder of this chapter.

Marital quality: Towards a more complete account

In this section we outline an approach to marital quality that is theoretically simple, can be easily operationalized, and yet accommodate the richness of clinical and everyday observations made regarding marital quality. We first review prior attempts to respond to the state of affairs outlined in the previous section before outlining our approach as it builds on one of these responses.

Attempts to clarify the construct of marital quality

There have been two major responses to the lack of clarity regarding marital quality. One response has been the attempt to develop multidimensional measures of the construct. This response is consistent with Beach and O'Leary's (1985) call for work which recognizes "that marital quality may not be a unitary construct and will not be accurately reflected by a single-outcome measure of marital happiness" (p. 1063). Perhaps the most well developed of these measures is the Marital Satisfaction Inventory (Snyder, 1981). This measure includes a validity scale that attempts to provide a control for socially desirable responses, a global distress scale comprising items that tap the individual's overall dissatisfaction with the marriage, and nine scales assessing different dimensions of marital interaction (e.g., time together, disagreement about finances, sexual dissatisfaction). The Marital Satisfaction Inventory is a psychometrically sophisticated instrument that offers a profile of marital quality much like the MMPI offers a profile of individual functioning and, like the MMPI, offers actuarial data to assist in its interpretation. It represents an important advance in research on marital quality. Unfortunately, however, the potential it offers for providing a more comprehensive picture of the marriage through profile analysis has not been adequately explored.

Even though it provides a multidimensional picture of marriage, the Marital Satisfaction Inventory accords one of the dimensions a special status. Specifically, the global distress scale occupies a special status as it is a criterion against which the remaining dimensions are validated. Hence items that tap overall evaluations of the marriage are used to interpret the validity of items that assess various domains of the marriage. This is consistent with a pervasive tendency in the literature to favor global evaluations of the marriage, a preference that is not often explicitly discussed. Thus, for example, a single item in the Marital Adjustment Test that assesses "marital happiness" is heavily weighted so that it accounts for 22% of the total possible test score. However, if all the items in the test were weighted equally it would only account for 6.6% of the total possible score.

Not surprisingly, a second response to the circumstances described earlier has been to define marital quality as subjective, global evaluations of the relationship (e.g., Fincham & Bradbury, 1987; Norton, 1983). The strength of this approach is its conceptual simplicity as it avoids the problem of interpretation that arises in many omnibus measures of marital quality. Because it has a clear cut interpretation, this approach allows the antecedents, correlates, and consequences of marital quality to be examined in a straightforward manner. Crosby (1991) argues that such a view of marital quality is the most accurate and useful from the perspective of clinical practice, a viewpoint that is supported by Jacobson's (1985) observation that overall evaluations of the marriage represent the final common pathway through which marital dysfunction is expressed. This viewpoint has given rise to such measures as the Quality Marriage Index (Norton, 1983) and the Kansas Marital Satisfaction Scale (Schumm, Paff-Bergen, et al., 1986). Fincham and Bradbury (1987) have argued that this view of marital quality reflects the evaluative dimension of the semantic differential (Osgood, Suci & Tannenbaum, 1957). The semantic differential is used to assess the connative meaning of concepts and consists of a series of bipolar adjective rating scales (e.g., "good - bad", "pleasant"-"unpleasant"). Numerous studies by Osgood and colleagues
have shown that three dimensions underlie the meaning of concepts, namely evaluative, potency, and activity dimensions. Because the evaluative dimension usually accounted for the largest amount of variability among scale items, Osgood and colleagues viewed it as equivalent to a person's attitude. Thus, Fincham and Bradbury (1987) have argued that ratings of the marriage on bipolar adjective scales can be used to yield a parsimonious operationalization of marital quality (three items are usually sufficient to assess dimensions of a concept; see Osgood et al., 1957).

One criticism of this approach is the view that unidimensional, global scales "often do not provide much information beyond the fact that a couple is distressed" (Fowers, 1990, p. 370). However, the same is true of the most widely used scales of marital quality, the MAT and DAS. Both the MAT and DAS are typically used to gain a summary, overall measure of marital quality. Although Spanier (1976) found evidence for four factors in the DAS — dyadic satisfaction, dyadic cohesion, dyadic consensus and affectional expression — these factors have not always been replicated (e.g., Sharpley & Cross, 1982) and both the disproportionate sampling and differing item formats across factors suggest that the factors are artifactual (see Norton, 1983).

Notwithstanding these observations about the MAT and DAS they remain the most widely used measures of marital quality. Indeed, measures reflecting the multidimensional and unidimensional responses outlined above have had a limited impact. For example, the Marital Satisfaction Inventory and the Kansas Marital Satisfaction Scale are used relatively infrequently compared to the MAT and DAS (e.g., the article describing the Kansas Marital Satisfaction Scale has been cited 70 times and citations for the Marital Satisfaction Inventory number 77). In contrast, articles reporting traditional measures of marital quality were cited much more frequently (769 times for the MAT; 918 times for the DAS: Social Sciences Citation Index, 1981-1995).

It therefore appears that any attempt to advance understanding of marital quality in the empirical literature will have to offer a significant advantage over MAT and DAS scores in order to overcome the inertia that has developed concerning these two measures. After all, there is a large data base relating to these measures (e.g., within 12 years of its development the DAS had been used in over 1,000 studies). In the remainder of the chapter we outline an approach to understanding and measuring marital quality that represents such an advance.

A new conception of marital quality: Step one

Our approach builds on the theoretically straightforward conception of marital quality as global, evaluative judgments of the marriage (Fincham & Bradbury, 1987). This conception is expanded to reflect complexities found in discussions of marital quality and in the reality of everyday life. For example, clinical observation suggests that a spouse's marital behavior is not always driven by a single undifferentiated view of his or her marriage; some spouses can show great tenderness towards their partners only to have such tenderness followed by acutely negative affect towards the partner moments later. Ideally, a measure of marital quality should accommodate such phenomena.

Measures of marital quality should also capture important differences between couples. Consider Sue and Sal who report a rollercoaster relationship. Both list great sex and having a lot of fun together as some of the good things in their relationship. However, they have concerns about the physical fights they get into and the frequent yelling that occurs in the front of the children. In contrast, Pam and Paul report a very steady, uneventful life together. They tend to always agree on things and nothing particularly positive or negative ever happens between them. Each spouse wonders if this is all marriage has to offer. Both couples may report a similar level of overall marital quality, but a single, summary index of marital quality, whether it represents evaluative judgments of the marriage or the score on a traditional test such as the MAT or DAS, seems to mask important differences between them.
The first step towards addressing such complexity is to conceive of evaluative judgments of the marriage as multidimensional, comprising positive marital quality (PMQ) and negative marital quality (NMQ) dimensions. Although simple, this conception has profound implications. For example, it alerts us to an important assumption in much of the psychological literature, including the marital literature. This assumption is reflected in the pervasive use of scales anchored by positive (e.g., "happy") and negative ("unhappy") endpoints that do not allow positive and negative dimensions to be expressed independently. In this regard, the marital literature is no different, for example, from the literature on attitudes where "social scientists typically assess people's attitudes by placing them on a bipolar evaluative continuum," (Eagly & Chaiken, 1993, p. 90). In fact, attitudes "are largely treated as unidimensional summary statements" even though they may in principle be considered multidimensional (Thompson, Zanna, & Griffin, 1995, p. 362). There is growing awareness in the attitude literature that this practice is not optimal and, where appropriate, we draw on this literature in developing our conception of marital quality.

Another implication of this two dimensional approach is that it has the potential to provide a more differentiated view of those who are neither high nor low in marital quality. This is important because it is unclear how to interpret responses that fall at the midpoint of a bipolar scale. Do such responses reflect the irrelevance of both poles (e.g., neither satisfied nor dissatisfied) or do they reflect some agreement with each pole (e.g., equally satisfied and dissatisfied)? That is, one can distinguish between "indifference" or caring about neither of the two endpoints, and "ambivalence" or caring strongly about both. From everyday observation it is quite easy to recognize spouses who are not engaged in the marriage and yet are neither happy nor unhappy with it (cf. Pam and Paul described earlier). Similarly, ambivalent spouses whose behavior often vacillates between positive and negative extremes are also recognizable (cf. Sue and Sal described earlier). Although such groupings have not been discussed in marital research, they can be hypothesized to exhibit avoidant and anxious/ambivalent attachment styles and thereby to have indirectly received attention in recent research. Our analysis has the advantage of clearly identifying such spouses and allows the relation to attachment style to be empirically evaluated.

The implications of our two dimensional approach to marital quality are illustrated using the groups shown in Figure 1. The two dimensions can be crossed to produce a fourfold typology of couples who can be distinguished in terms of important characteristics of their marriage. Two of the categories are already identified through established measures. Those high on PMQ and low on NMQ seem to fit the traditional understanding of "happy" or "satisfied" spouses, just as those high on NMQ and low on PMQ fit the traditional understanding of "distressed" spouses. The two other categories of spouses (high PMQ, high NMQ and low PMQ, low NMQ), however, are not currently distinguished in most measures of marital quality and correspond to our distinction between Ambivalent and Indifferent spouses. In such a typology Ambivalent and Indifferent spouses should not differ in scores on traditional, unidimensional measures of marital quality but should have significantly lower scores than Happy spouses, and significantly higher scores than Distressed spouses on such measures. The utility of this typology would be further supported to the extent that Ambivalent and Indifferent spouses were found to differ on variables that have been shown to be related to marital quality.
What evidence exists to support the analysis offered thus far? In answering this question we begin by noting that analogous two dimensional analyses have emerged in other areas of research and advanced understanding in those areas. For example, in the study of affect a two-dimensional assessment is used, although the axes are often rotated to yield positive and negative dimensions. Summarizing such work, Watson, Clark, and Tellegen (1988) conclude that even though positive and negative affect are often assumed to be strongly negatively correlated, "they have in fact emerged as highly distinctive dimensions that can be meaningfully represented as orthogonal dimensions in factor analytic studies of affect" (p. 1063). Elsewhere, we (Beach & Fincham, 1994) have already offered an analysis of marriage that is based on a two-dimensional structure of affect. The present research supplements this analysis by exploring the more general question of whether assessment of marital quality can be enhanced by including both positive and negative components.

Similarly, in attitude research positive and negative dimensions have been identified in an attempt to examine ambivalence as a property of attitudes. To collect positive and negative dimensions of attitudes, Kaplan (1972) divided the semantic differential into positive and negative components. His, and subsequent work (see Thompson et al., 1995), has shown that respondents have no difficulty in responding to the two components and that the responses do not provide redundant information. In fact, positive and negative dimensions are remarkably independent with mean correlations in the range of -.05 (Kaplan, 1972) to -.40 (Thompson et al., 1995).

Although surprisingly little attention has been given to the possibility that marital quality may comprise separate positive and negative dimensions, there is some evidence to support this viewpoint. Orden and Bradburn (1968) presented an early multidimensional approach to assessment of marriages which points towards such a possibility. Based on self-report of behaviors, they found three factors which they labeled "sociability," "companionship," and "tensions." This behavioral type of assessment has not been followed extensively, "[i]n part because spouses seem to disagree over the occurrence of daily behaviors in their relationship" (O'Leary & Smith, 1991, p. 198) although interest in behavior, especially as a dependent measure, has continued. Still, their approach includes a positive dimension made up of two factors (sociability and companionship) and a negative dimension (tensions).

Soon thereafter, Rollins and Feldman (1970) distinguished companionship with the spouse, which they viewed as positive, from negative feelings derived from interaction with the spouse. Their approach was also used in Gilford and Bengtson's (1979) attempt to analyze positive and negative dimensions of marital satisfaction. Following Orden and Bradburn's (1968) lead, Marini (1976) attempted to relate positive and negative dimensions of marriage to general positive and negative affect. Outside of the marital field, Rodin (1978) similarly argued that liking and disliking are separate judgments. More recently, Johnson, et al. (1986), also found two main dimensions, which they note are positive and negative, when they
analyzed responses in five areas of marriage. There is thus some evidence that satisfaction and dissatisfaction within personal relationships are not polar opposites.

In regard to global evaluations of a marriage, the first question is whether responses can be obtained on positive and negative dimensions that yield relatively independent dimensions of marital quality. Our initial attempts to examine this issue were crude and simply involved asking spouses to rate independently the extent to which adjectives typically used in semantic differential scales (e.g., good-bad) characterized their marriage. This procedure yielded responses that were highly negatively correlated (correlations ranged from -.70 to -.85). This was somewhat puzzling in view of the much lower correlations found in the attitude ambivalence literature. However, Kaplan's (1972) decomposition of the semantic differential contained an important element missing from our own, namely, the instruction to consider only positive (negative) qualities when making a rating of positivity (negativity) and to ignore negative (positive) qualities.

Consequently, in our most recent study (see Fincham & Linfield, in press) we explicitly instructed approximately 120 couples to evaluate one dimension at a time in three marital areas (feelings about the marriage, feelings about one's spouse, and qualities of one's spouse). Thus, for example, spouses rated the item, "Considering only good feelings you have about your marriage, and ignoring the bad ones, evaluate how good these feelings are". The response scale, which ranged from 0 to 10 was anchored by "Not at all good" (0) and "Extremely good" (10).

The consistency of responses to items assessing PMQ and NMQ was high (coefficient alpha for husbands, .87 and .91; for wives, .90 and .89, for positive and negative dimensions, respectively). More importantly, the correlations between PMQ and NMQ scores were comparable to those found between positive and negative dimensions of attitudes in social psychological research (-.41 and -.39 for husbands and wives, respectively). These results were encouraging but it was nonetheless possible that positive and negative items reflected a single underlying dimension of marital quality.

To examine this possibility, a confirmatory factor analysis was conducted. When all six items were used as indicators of a single latent measure of marital quality, a poor fit was found between the model and the obtained data. However, when a two-factor model was posited in which positive and negative items were hypothesized to load on separate, yet correlated, dimensions of marital quality, a much better fit was obtained for both spouses. To determine whether a two factor model is more appropriate than a single factor model, the models were compared statistically. The two-factor model showed a significantly better fit. Thus, the data obtained for marital quality items were best accounted for by a two dimensional model in which positive and negative items defined separate, but related, factors (footnote 3).

A concern that arises is whether this two dimensional structure is a function of general affective style. As noted earlier, affect has a two dimensional structure and responses to PMQ and NMQ questions may simply reflect an individual's general level of affectivity. We have found an association between affectivity and PMQ and NMQ scores, but the magnitude of the associations (ranging from .32 to .49) show that only a small portion (less than 25%) of the variance is shared. Thus marital quality scores do not simply reflect affectivity. However, in view of the association documented, it is still important to demonstrate that affectivity does not account for any associations established for this approach to marital quality.

Although important, the documentation of a nonspurious, two dimensional structure for evaluative judgments pertaining to marriage is a necessary but not sufficient step for establishing its utility. An important question that now arises is whether a two dimensional approach
accounts for variance in constructs known to be related to marital quality. If so, is this variance unique or does it simply reflect variance that would be captured by a traditional, unidimensional measure of marital quality? To answer this question, Fincham and Linfield (in press) examined two well established correlates of marital quality: behavior and attributions. In each case, both a traditional marital quality measure (Marital Adjustment Test) and PMQ and NMQ dimensions were used to predict reports of partner behaviors over the past week and attributions for negative partner behaviors (as assessed by the Relationship Attribution Measure; Fincham & Bradbury, 1992).

Table 1 shows that PMQ and NMQ accounted for unique variance in both spouses' reported behavior (ratio of positive to negative behaviors reported) and in wives' attributions. Interestingly, the Marital Adjustment Test also accounted for unique variance. These findings were not an artifact of general affective style as they all remained significant when general spousal affectivity (Positive and Negative Affect Schedule, Watson et al., 1988) was included in the prediction of behaviors and attributions.

Earlier we argued that a two dimensional view of marital quality allows distinctions that are not afforded by unidimensional measures. Specifically, Figure 1 shows a typology of spouses that distinguishes not only Happy from Distressed spouses but also identifies Ambivalent and Indifferent spouses. Thus, it can be argued that: (a) the Marital Adjustment Test scores of these two groups would fall between Happy and Distressed spouses and (b) Ambivalent and Indifferent spouses would display different characteristics.

To examine these hypotheses, Fincham and Linfield (in press) formed four groups of spouses using median scores on the PMQ and NMQ dimensions. Those scoring above the median were classed as high on that dimension and those scoring below the median were classed as low on the dimension. The Marital Adjustment Test scores of Ambivalent and Indifferent spouses were significantly lower than those of Happy spouses and significantly higher than those of Distressed spouses. However, in keeping with our earlier analysis the Ambivalent and Indifferent spouses did not differ from each other in overall marital quality (MAT scores) despite differences between them on the correlates of marital quality. That is, Ambivalent and Indifferent wives differed in reports of behavior and in attributions. Ambivalent wives attributed significantly more cause and responsibility to their partners for negative events and reported higher ratios of negative to positive partner behaviors. In contrast, Ambivalent and Indifferent husbands did not differ significantly in attributions or in reports of behavior.

It is important to note that NMQ and PMQ are continuous dimensions and therefore the primary value of the typology presented is heuristic. There is ongoing research to examine how best to combine positive and
negative attitude dimensions to yield a continuous measure (see Thompson et al., 1995). For example, the multiplicative effect of PMQ and NMQ (the interaction term) has served as a measure of ambivalence in Katz's research (Katz & Hass, 1988; Hass, Katz, Rizzo, Bailey & Eisenstadt, 1991). As Hass et al. (1991) point out, however, ambivalence should reflect similarity of responses on positive and negative dimensions as well as their extremity. A multiplicative combination of dimension scores violates this view as it produces greater (rather than less) ambivalence as the dissimilarity in scores increases. Thompson et al. (1995) compare various combinations recommending one (# of response options - |positive - negative| plus (positive + negative)/2) that yields component measures of similarity (# of response options - |positive - negative|) and intensity ((positive + negative)/2). This allows examination of the relative roles of each component in associations between ambivalence and other variables.

In sum, there is preliminary evidence to support a two dimensional view of marital quality comprising positive and negative evaluations. This approach has several advantages in addition to its conceptual clarity. First, it provides a clear link with research on attitudes in social psychology and thus creates the potential for research on marital quality to inform and be informed by theoretical and methodological developments in this broader literature. Second, it opens up new areas for marital quality research. For example, change in marriage is currently under intense research. However, unidimensional measures of marital quality can only provide a global index of change whereas the analysis offered here suggests that changes in marital quality may follow several different paths. For instance, it would be theoretically important if happily married spouses first increased negative evaluations only (became ambivalent) before then decreasing positive evaluations and becoming distressed, as compared to a progression in which negative evaluations increased and positive evaluations decreased at the same time. Such progressions may, in turn, differ in important ways from one where there is simply a decline in positive evaluations over time. Documenting the existence of different avenues of change in marital quality, examining their determinants, and exploring their consequences suggests a program of research that may do much to advance our understanding of how marriages succeed and fail.

A new conception of marital quality: Step two

Up to this point, we have concentrated on showing that spouses can have both positive and negative evaluations of their marriage. This is important but it does not go far enough in that we do not know when these different evaluations will affect behavior. Consider the observation made earlier that a spouse can treat his/her partner very tenderly one moment and then quite negatively the next. For example, in the case of Sue and Sal why do they experience passion towards each other at one moment in time and experience intense anger towards each other at a different moment in time? A second step can be taken towards answering this question by considering the broader literature on cognition-behavior relations.

The relation between cognition and behavior has been the subject of psychological inquiry throughout the century and the advent of the human information processing metaphor in psychology has stimulated advances in this area. This can again be illustrated by reference to the attitude literature. As the second element of our approach builds on this literature, we offer a fairly detailed account of this illustration.

Influenced by theory and research on memory as a network of associated elements, Fazio (1990, 1995) has defined an attitude as an association between an object and a summary evaluation of the object. This association can vary in strength such that for some objects (e.g., "spider" for spider phobics) their mere mention or presentation activates an evaluation automatically whereas for others (e.g., "spoon") an evaluative association is weak or nonexistent. Fazio argues that the strength of this association is critical in understanding the relation between attitudes and behavior. This is because the strength of the association determines whether the attitude is available when the person acts in relation to the attitude object. When the attitude is highly accessible, it is likely to
affect subsequent behavior. By using the latency of an evaluative response to the attitude as an index of associative strength, Fazio has been able to examine these ideas empirically.

For example, Fazio and Williams (1986) measured attitudes towards presidential candidates and the accessibility of the attitudes. At each level of response on the attitude scale, the sample was divided into two groups: a high accessible group (those who responded relatively quickly) and a low accessible group (those who responded relatively more slowly). This procedure ensured that the distribution of attitudes was equivalent in the two accessibility groups, an important consideration as accessibility tends to correlated with attitude extremity. They showed that attitudes were more predictive of voting behavior four months later in the high accessible group (.89) than in the low accessible group (.66). Similar findings have been obtained for response latencies obtained via computer assisted telephone interviews during the 1990 Ontario Provincial election (Bassili, 1993). The role of accessible attitudes in moderating attitude-behavior relations has also been demonstrated in experimental studies (e.g., Fazio, Powell & Williams, 1989).

It is important to note that attitude accessibility has a number of other consequences. For instance, it influences the processing of information about the attitude object. Thus, the Fazio and Williams (1986) study showed that the speed with which people made evaluative judgments about Reagan moderated the relation between their attitudes towards Reagan and their judgment of the impressiveness of the Republican's performance was significantly higher (.738) than for slow responders (.404). In a similar vein, accessible attitudes ease decision making, enhance the quality of decisions, and orient attention (Blascovich, Ernst, Tomaka, Kelsy, Salomon & Fazio, 1993; Roskos-Ewoldsen & Fazio, 1992).

How is all this relevant to marital quality? In answering this question it is useful to specify the level at which we conceptualize responses to self report inventories concerning marital quality. Following Dahlstrom's (1969) distinctions that were outlined earlier, we view such responses as reflections of attitudes; in our case these attitudes concern global, evaluative judgments. Following Fazio, we hypothesize that the importance of these judgments for understanding marital interaction will be influenced by their accessibility. Marital interaction often unfolds in a relatively quick and seemingly mindless manner, the very circumstance under which accessible attitudes are considered to be most powerful (footnote 4).

The implications of this view for understanding marriage are quite profound. Take, for example, the sentiment override hypothesis described in the marital literature (Weiss 1980). According to this hypothesis, spouses respond to questions about the partner/marriage in terms of their dominant sentiment about the marriage rather than in terms of the specific question asked. That is, the spouse responds noncontingently. If this hypothesis is correct, it has important implications for research. In its strongest form, it poses a threat to the validity of self-report studies on marriage. Specifically, if dimensions of marriage assessed via self-report simply reflect sentiment towards the marriage they will necessarily be correlated if the range of marital satisfaction sampled is not restricted.

However, sentiment override can be conceptualized as "top down" or theory driven processing. Viewed in this way, marital quality is a concept that can influence processing of spouse and marriage-relevant information, affect behavior etc. This means that the strength of the association in memory between the representation of the partner and the spouse's sentiment (evaluation) about the partner will determine whether the sentiment is called to mind when questions are asked about the partner/marriage. One of the most robust findings in the social cognition literature is that concepts made available through situational manipulations (e.g., priming) or naturally occurring states (e.g., depression) can influence the encoding of new information (cf. Wyer & Srull, 1989). Such encoding, in turn, tends
to influence retrieval of material from memory. Concepts easily accessed from memory can therefore have a pervasive impact on spouses' behavior. However, as reflected in Fazio's definition of attitude, not all concepts are equally accessible or brought to mind with equal ease. In fact, the importance of individual differences in concept accessibility is well documented (Markus & Smith, 1981). Thus, even if marital quality is chronically accessible to all spouses, individual differences in accessibility may still exist. Once we allow for this, the sentiment override hypothesis becomes more complex and may only apply to a certain group of spouses (those with accessible attitudes).

Is there any evidence to support this element of our analysis of marital quality? Fincham, Garnier, Gano-Phillips and Osborne (1995) measured the accessibility of spouses' evaluative judgments using two procedures. The first involved a binary choice (positive-negative) when various items, including marriage relevant items (e.g., "your wife"), served as stimuli. The second concerned answers to questions about the marriage (e.g., "The relationship I have with my husband is satisfying") given on five point rating scales (ranging from "strongly disagree" to "strongly agree"). In each case response latencies were timed. Latencies were adjusted for differences in baseline speed of responding and fast and slow groups were formed that did not differ in marital quality (e.g., for the rating task, groups were formed at each response point on the scale). For both husbands and wives, fast responders showed a higher correlation between Marital Adjustment Test scores and judgments of partner contributions to negative marital events (-.52, -.51, for husbands and wives, respectively) than slow responders (-.09, .24 for husbands and wives, respectively). For husbands, accessibility also moderated the relation between Marital Adjustment Test scores and anticipated wife behavior in an upcoming interaction (fast group = .70, slow group = .37). The same results were found when using latencies derived from the rating scale task.

Similar results were found in a more recently completed study using the choice reaction time task. Accessibility again moderated the relation between Marital Adjustment Test scores and anticipated partner behavior (but this time for wives only; fast group = .72, slow group = .38). In addition, accessibility moderated the relation between two measures of marital quality in husbands. The correlation between the Marital Adjustment Test score and Quality of Marriage Index (Norton, 1983), an index reflecting the global evaluation conception of marital quality, was higher (.90) in the high accessibility group than in the low accessibility group (.52). There is therefore initial evidence to support the value of including accessibility in our analysis of marital quality.

Although the relevance of these findings for understanding marriage has been questioned (see Baucom, 1995), they have important implications. For example, because spouses whose marital quality is highly accessible are likely to process information about the partner in terms of their marital quality, one can hypothesize that, relative to spouses whose marital quality is not as highly accessible, their marital quality will remain stable over time. We have some evidence to support this hypothesis. Using the choice reaction time task to form the two accessibility groups, we examined correlations among current Marital Adjustment Test scores, corresponding scores collected 12 months earlier and collected 18 months earlier. Table 2 shows the correlations obtained for the two groups. For both husbands and wives corresponding test-retest correlations differed significantly in the two groups. Given the noise in reaction time data and the use of only four partner stimuli to form fast and slow groups, we find these results quite compelling.
Perhaps the most important implication of this element of our analysis is that the vast literature on the correlates of marital quality needs to be reworked. The overall correlation between marital quality and other variables may be misleading if the magnitude of the association turns out to be higher for one category of spouses (fast responders) and lower for another (slow responders). Previously nonsignificant correlations may turn out to be significant, at least for one group of spouses, and some correlates of marital quality may prove to be more important than previously thought. The incorporation of accessibility or associative strength into research on marital quality and its correlates is analogous to the refinement of a diagnostic category in a psychiatric nosology into several subcategories. It is not that the original broad category (or set of correlates) is wrong, but rather that it is crude. The more homogenous subcategories allow a more precise picture to emerge that includes differential correlates for subcategories, new correlates and so on.

In sum, this element of our analysis also has the potential to further our understanding of marital quality; it shows how marital quality may influence information processing, judgments, decision making, and behavior in marriage. Thus, for example, just as the accessibility of constructs that characterize the self influences information processing (e.g., Markus & Smith, 1981), constructs relevant to relationships are also likely to influence information processing. This influence most likely reflects the fact that much cognitive processing in close relationships is automatic and occurs outside of conscious awareness (Fincham, Bradbury & Scott, 1990). Spouses therefore need not engage in controlled or conscious, effortful processing for accessibility effects to operate. However, in our research, spouses have had the opportunity to engage in deliberative processing and yet we still found accessibility effects. An important task in future research is not only to explore the potential impact of accessibility effects but to determine the conditions under which they operate in marriage. Again, it should be noted that our analysis provides a clear link with a broader literature on attitudes and opens new areas of inquiry in the marital field.

A new conception of marital quality: Step three

The final element of our analysis is to link the preceding two steps. This element is somewhat more speculative as we have not collected data on it. Nonetheless, it seems reasonable to argue that positive and negative dimensions of marital quality can each be studied in terms of their accessibility. That is, the cognitive representation of the partner is hypothesized to be associated with a negative evaluation node and with a positive evaluation node.

In principle it should be possible, in most cases, to prime positive and negative partner evaluations. If demonstrated, such priming effects would allow us to explain the clinical observation with which we began our reanalysis, namely, the spouse who shows tenderness towards the partner followed rapidly by negative behavior towards the partner. In such a case, the switch from positive to negative spouse behavior can be explained by a change in the accessibility of the negative marital quality dimension. For
example, the partner in responding to the spouse's tenderness may do or say something that fires the spouse's partner-negative node association. Alternatively, this association might be activated internally by the spouse when he or she accesses a thought that triggers this association.

Again, however, clinical observation suggests that matters may not be this simple. Most clinicians will be familiar with couples where it is almost impossible to get a spouse to acknowledge anything positive about his/her partner. Similarly, at the other extreme the authors have encountered in their research spouses who cannot see or acknowledge anything negative about their partners. In such cases, the asymmetry in partner associations with positive and negative evaluations is likely to be maximal with one of the associations approximating zero. The relative strength of each association may therefore be important in understanding the impact of marital quality on information processing, behavior and so on.

Presumably, the analysis of ambivalence offered in relation to ratings of positive and negative marital quality (and of attitudes more generally) can be applied also to the accessibility of the dimensions. Thus, for example, the extent to which each association is similar in magnitude and the extent to which the absolute magnitude is high, will predict inconsistency in marital behavior, in the processing of partner behavior, and so on. This is because marital quality dimensions are most easily primed under such conditions and positive and negative dimensions would, on average, have an equal probability of being primed.

Although we have not specifically investigated these ideas, we do have some relevant data. For example, we have data that bear on an important assumption in integrating the two-dimensional and accessibility components of our analysis, namely, that the accessibility of positive and negative marital quality evaluations are relatively independent. Spouses were asked to evaluate partner behaviors which included target items clearly designed to be either negative or positive. This was done to ensure that spouses gave both types of evaluations. Latency scores were calculated for these two sets of targets taking into account respondents' baseline speed of responding. The correlation between speed of responding to the two types of events was then computed. Although related (husbands = .30; wives = .35), the magnitude of the correlation was sufficiently low to suggest that speed of responding in making positive and negative evaluations is relatively independent (footnote 5).

Given our analysis, an issue that arises is how PMQ and NMQ are combined when spouses provide a single, global evaluation of their partner/marriage. This is particularly important because a summary global evaluation of the marriage, rather than a particular behavior or set of behaviors, represents the final common pathway through which marital dysfunction is expressed when, for example, spouses seek professional help (Jacobson, 1985). Moreover, there is a large literature on this topic and it behooves us to maintain continuity with that literature in building a cumulative body of knowledge on marriage. Is there a threshold for negative sentiment about the marriage that once crossed leads a spouse to express marital dysfunction regardless of their positive feelings? If so, this suggests the need to focus on determinants of negative evaluations. Or, does the magnitude of the discrepancy between positive and negative evaluations drive the expression of marital distress? In this case, one can focus on the determinants of positive and negative evaluations.

Again we have some very preliminary data that relate indirectly to this question. It follows from our two dimensional analysis of marital quality that spouses will differ in the ease with which they can make a single, summary judgment of the partner. As spouses make more similar ratings on the two dimensions and these ratings increase in magnitude (i.e., they experience ambivalence), they should have greater difficulty making a summary judgment. To examine this possibility we computed two ambivalence scores, following the procedure used by Katz (Katz & Hass, 1988) and the one recommended by Thompson et al. (1995), and examined their
association with speed of making evaluative judgments of the partner. The two procedures produced indices that correlated significantly ($p < .01$) and similarly with speed of making summary judgments (husbands = .35 and .34; wives = .47 and .41, for Katz and Thompson et al measures, respectively). ($p < .01$). Thus, the exact procedure used to calculate ambivalence did not influence the correlates found for this property of attitudes. Overall, the positive correlations obtained provide indirect support for the view that positive and negative dimensions are integrated in reaching a summary judgment.

**Application and limitations**

Throughout the chapter we have attempted to spell out the implications of our analysis for understanding marriage. In this section we focus on the more practical implications of our analysis for helping couples. In doing so, we must add two important cautions regarding practical application. First, there is the need for a solid foundation of research to support theory before it is applied. Second, supportive research is not sufficient for application; the application itself needs to be empirically evaluated. As neither condition has been met in the present case, the following applications are necessarily speculative.

Perhaps the most important application stems from the recognition that much information processing in marriage occurs automatically or without conscious awareness. Up to now, though, most advice given to therapists working with couples focuses on modifying the contents of conscious thoughts (e.g., beliefs, assumptions), providing missing information in a person's knowledge base and helping clients to make decisions (e.g., Baucom & Epstein, 1990). Although extremely valuable, the focus on conscious judgments has virtually excluded consideration of automatic processing in the marital literature. Indeed, many of the conscious judgments spouses make about the marriage may reflect post hoc rationalizations for actions that resulted from automatic processing of partner behavior that is beyond the spouse's awareness.

Does this omission matter in helping couples? Yes and no. It is possible to view cognitive interventions in marital therapy as addressing automatic processing. That is, simply by getting spouses to think about their behavior, explore alternative interpretations of the behavior and so on, automatic processing is disrupted. In other words, the therapist makes more accessible alternative concepts in the spouse's associative network and this alters automatic processing. However, few therapists are aware of this possible impact on automatic processing and fewer still use knowledge of automatic and controlled processing to maximize the impact of their interventions. Attention to automatic processes can lead to important changes in therapist behavior. For example, consider a therapist who is aware of the fact that when a spouse processes partner behavior she or he stores in memory a summary judgment about the behavior and that this summary judgment is more likely to influence subsequent processing than retrieval of the behavior itself. Knowing also that people tend to process information in terms of concepts currently available in short term memory, such a therapist might behave subtly to make salient particular, positively valenced concepts that might then influence processing of the behavior. Over time such interventions might result in important changes in the accessibility of positive and negative marital quality dimensions.

Spouses might themselves use knowledge of these automatic processing effects to alter their marital quality. At the simplest level, we know that frequency and recency of concept use influences its accessibility. Therefore, simply by making a point of thinking about the positive dimension of the marriage every day (or more frequently if necessary) a spouse can influence the accessibility of the positive marital quality dimension. This increased accessibility may then have "knock on" or snowball effects as it might influence the way he or she views certain partner behaviors, and so on. At a slightly more complex level, when they find themselves feeling negatively about the partner, spouses might ask themselves what they are calling to mind. Is this recalled material the
whole story or have the positive elements been overlooked? Even when their negative feeling is entirely warranted (as sometimes occurs in every marriage), they can minimize the impact by not going over the event repeatedly in their mind. Such rehearsal will strengthen the accessibility of negative associations relating to the partner/marriage and could, in turn, have snowball effects.

Our analysis also suggests clinical practices that have been avoided by some therapists. For example, behaviorally oriented marital therapists have tended to avoid having couples engage in conflict during therapy sessions. But we suggest the exact opposite. For example, nonconscious memories can influence automatic processing and trigger reactions to particular partner behaviors or conflict situations that are quite inappropriate. Thus, unless contraindicated, we allow couples to engage in overt conflict during a therapy session. This permits us to interrupt the conflict and inquire about cognitions and affects that may only be accessible to the spouse when he or she is engaged in the conflict. It also allows us to observe directly conflict behavior and identify possible thoughts and feelings of which the spouse is unaware but that appear to underlie his or her behavior. Because conflict during therapy sessions can undermine progress, it is important that this procedure be implemented with considerable care. However, it does allow us, for example, to identify the automatic triggering of nonconscious memories from past relationships in the marriage. Steps can then be taken to avoid such occurrences.

Although extremely difficult to do without professional guidance, spouses might try to implement the above procedure. That is, they can try to take a time out during the heat of marital conflict and write down exactly what they are thinking and feeling. More importantly, they should try to specify what kinds of thoughts would a person thinking, feeling, and behaving like them be assumed to have (even if they don't consciously experience having such thoughts and feelings). If these thoughts and feelings can be identified, the spouse can then ask him or herself whether they really mean to behave in accordance with such thoughts and feelings. In some cases, spouses can be quite surprised when they stop and do this as they realize that their behavior is based on thoughts and feelings that they do not feel are really justified.

In sum, our analysis has important practical implications. Therapists and spouses who wish to explore these further should consult a self-help text specifically written for that purpose (Fincham et al., 1993). This text begins by helping spouses decide whether self-help is advisable or whether they need professional help. Again, we caution the reader as to the speculative nature of the above applications and add the further caution that self-help is not always a good idea.

Conclusion

We began this chapter with several observations about current work regarding marital quality. These observations led us to offer a new analysis of marital quality. The analysis defines marital quality in terms of global, evaluative judgments and documents that these judgments reflect positive and negative dimensions. Understanding the role of these dimensions in marriage required consideration of the concept of accessibility and we argued that the accessibility of each of these dimensions will determine their impact.

Our analysis has many advantages. It is conceptually simple and allows clear interpretation of measures derived from it. Because it does not include heterogenous content, it also avoids the problem of content overlap between measures of marital quality and measures of correlated concepts (e.g., communication), a problem that is pervasive in research on the correlates of marital quality. The level at which to interpret responses to questions about marital quality is clearly specified and, because the concept refers only to evaluative judgments, it is more likely to be transportable across cultures than most existing measures. A further advantage is that it not only suggests refinement in current knowledge of
marital quality (e.g., regarding accessibility of marital quality and its correlates) but also identifies new areas of inquiry in the marital literature (e.g. the study of ambivalence). Finally, our analysis clearly situates the study of marital quality in a broader psychological literature that offers much to marital researchers and which may itself be enriched by marital research.

Footnotes

* The first author was supported in the preparation of this manuscript by a Social Science Research Fellowship from the Nuffield Foundation, a grant from the Economic and Social Research Council and a grant from the National Health Service. The second author was supported by a grant from the National Science Foundation. The authors would like to thank Emma Lycett, Gordon Harold, Samantha Watson, Rachel Frost and Anne-Marie Ruan for their helpful comments on an earlier draft of the chapter.

1. Clearly some properties of the relationship can only be obtained from spouses (e.g., frequency of intercourse) but others may be beyond the awareness of all but the most psychologically sophisticated (e.g., the pattern of interaction during conflict).

2. In support of this theoretical position is some emerging evidence that global, evaluative items are also empirically distinct from other types of items in the DAS. For example, Heyman et al. (1991) found that responses to items assessing disagreement in various areas differed significantly from items assessing satisfaction in these areas. In a similar vein, Whisman and Jacobson (1992) found that couples showed less improvement following treatment on a satisfaction measure than the DAS.

3. As it can be argued that the PMQ and NMQ dimensions emerged because of the wording of the questions used to assess them, Fincham and Linfield (in press) report similar results using spouses' ratings of the extent to which affective adjectives (see Watson, Clark & Tellegen, 1988) described their feelings about the marriage. Scores for positive and negative adjective ratings, like PMQ and NMQ, were moderately and negatively correlated (husbands = -.42; wives = -.39). Moreover, the magnitude of the correlations between the PMQ score and positive affective adjectives (husbands = .52; wives = .47) and the NMQ score and negative affective adjectives (husbands = .38; wives = .57) suggests that the dimensions assessed by the PMQ and NMQ do not simply reflect affective ratings of the marriage.

4. To the extent that persons are motivated and have the opportunity to reflect on their behavior, attitude accessibility should be less important as deliberative, controlled processing will dominate (Fazio, 1990).

5. In general, positive responses occur much faster than negative responses in choice reaction time tasks. However, we were not interested in the magnitude of responses but rather in their rank ordering across positive and negative dimensions.
References


attitudes: Attitude accessibility as a determinant of an object's attraction of visual attention. *Journal of Personality and Social Psychology*, 63, 198-211.


