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A New Look at Marital Quality: Can Spouses Feel Positive and Negative About Their Marriage?

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Marital quality is examined as a 2-dimensional construct comprising positive and negative evaluations. Assessments of marital quality, behavior, attributions, and general affect were completed by 123 couples. Confirmatory factor analysis supported the existence of positive and negative marital quality dimensions. These dimensions also explained unique variance in reported behavior and attributions beyond that explained by a conventional marital quality measure and by positive and negative affect. Ambivalent (high-positive and high-negative) and indifferent (low-positive and low-negative) wives differed in reports of behaviors and attributions but did not differ in scores on the conventional marital quality test. The implications of a 2-dimensional analysis of marital quality for theory and research are outlined.

In both Britain and the United States, the majority of the problems for which people obtain professional help concern their spouse or partner (McAllister, 1995; Veroff, Kulka, & Douvan, 1981), and the deleterious effects of marital problems on physical and mental health are well documented (e.g., Burman & Margolin, 1992). Not surprisingly, the most frequently studied topic in research on marriage is marital quality. Although numerous correlates of marital quality have been identified, concerns regarding the conceptualization and measurement of marital quality continue to be expressed (e.g., Glenn, 1990; Sabatelli, 1988; Trost, 1985). The present study therefore offers a clear, simple conceptualization of marital quality, presents a means of assessing marital quality that derives from this conceptualization, and examines whether this approach to the study of marital quality advances our understanding of marriage beyond that captured by widely used, traditional measures of marital quality.

The most widely used measures of marital quality are the Dyadic Adjustment Scale (DAS; Spanier, 1976) and the Marital Adjustment Test (MAT; Locke & Wallace, 1959). Although these measures include items ranging from reports of specific marital behaviors (description) to inferences about the marriage (evaluative judgments), they typically yield a single, summary index of the marriage.[1] Given the nonequivalence of test items, it is not clear how these summary indexes should be interpreted at the theoretical level. In practice, they are usually treated as though they reflect the spouse's sentiment toward the marriage.

To avoid the problem of interpretation that arises in many omnibus measures of marital quality, Fincham and Bradbury (1987) defined marital quality in terms of a spouse's sentiment as reflected in subjective, evaluative judgments of the marriage or partner. Crosby (1991) also

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[1] 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).

argued that such assessment 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. The strength of this approach is its conceptual simplicity. The construct investigated and the domain of variables to which it relates are clearly specified a priori, circumstances that are seldom found in marital research despite their psychometric importance. A practical advantage of this approach is that it allows for the use of brief measures to assess marital quality.

It is interesting that, at both the conceptual level and in terms of data, such global evaluations appear to play a central role in research involving multidimensional conceptions of marital quality. For example, Snyder (1979) developed a psychometrically sophisticated scale that offers a profile of marital quality much like the Minnesota Multiphasic Personality Inventory offers a profile of individual functioning. However, one of the dimensions, global distress, which comprises subjective evaluation of the marriage (e.g., "Frankly, our marriage has not been successful"), is granted a privileged conceptual status because it is used as a criterion against which the remaining dimensions are validated. At the empirical level, even though Kurdek (1992) managed to replicate the original four-factor structure of the DAS in a recent study, he also found that only the Dyadic Satisfaction subscale, a scale comprising subjective evaluations of the relationship, consistently explained significant, unique variation in other measures of interest.

Notwithstanding its utility, an overall index of the spouse's sentiment toward the marriage may not capture the reality of everyday life. Clinical observation suggests that a spouse's marital behavior is not always driven by a single undifferentiated view of his or her marriage. Indeed, some spouses can show great tenderness toward their partners only to have the tenderness followed by acutely negative behavior toward the partner moments later. Such observations suggest that evaluative judgments of the marriage may be multidimensional, reflecting, at the very least, positive and negative dimensions.

Orden and Bradburn (1968) presented an early multidimensional approach to assessment of marriages that points toward such a possibility. On the basis of self-report of behaviors, they found three factors that they labeled *sociability, companionship,* and *tensions.* This behavioral type of assessment has not been followed extensively, "in 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 dimensions comprise a positive one made up of two factors (sociability and companionship) and a negative one (tensions). Johnson, White, Edwards, and Booth (1986) also found two main dimensions, which they noted were positive and negative, when they analyzed responses in five areas of marriage.

Surprisingly little attention has been given to the possibility that marital quality can be studied in terms of separate positive and negative dimensions. This circumstance most likely reflects the pervasive use of items anchored by positive (e.g., *happy*) and negative (e.g., *unhappy*) endpoints that do not allow positive and negative evaluations to be expressed independently. In this regard, the marital literature is no different from the broader literature on the assessment of 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 are often considered to be multidimensional (Thompson, Zanna, & Griffin, 1995, p. 362).

Attempts to deal with the problem of what it means to endorse the midpoint on bipolar scales has led to new ways of thinking about and assessing attitudes. Kaplan (1972), in addressing this issue, noted that responses in the middle of bipolar scales could either reflect some agreement with each pole or the irrelevance of both poles. That is, one can distinguish between *indifference,* or caring about neither of two items, and *ambivalence,* or caring strongly about both. To collect positive and negative evaluations, Kaplan divided the semantic differential into positive and negative components. His work, 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).

Recent research on affect has likewise used a two-dimensional assessment, although the axes are often rotated to yield positive and negative dimensions. Summarizing such work, Watson, Clark, and Tellegen (1988) concluded 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). However, Diener and Emmons (1985) found that the relation between positive and negative affect varies with the time period considered; they are strongly negatively correlated when assessed for an incident in the present but are relatively independent when assessed over a longer time period.

If a two-dimensional approach to marital quality follows the pattern identified by Diener and Emmons (1985) for positive and negative affect, this interaction of time and the dimensional nature of affect might explain the reluctance of marital researchers to consider positive and negative dimensions of marital assessment. Examining more recent and specific events in marriage, such as "How do you feel about what your spouse said in the discussion?" would be expected to yield single-dimensional results, which might lead researchers to ignore any need for a second dimension. Assessment of the relationship in more general terms would be expected to allow positive and negative dimensions to emerge as independent dimensions. Marital quality measures such as the MAT often include questions about specific behaviors, but, in the absence of any temporal reference, respondents are free to interpret these questions in terms of any time frame they wish.

The present study investigates whether our understanding of marriage can be enhanced by assessing positive marital quality (PMQ) and negative marital quality (NMQ) independently. In particular, does such an approach yield additional, useful information compared with traditional, single-dimensional measures of marital quality? It is also apparent that PMQ and NMQ scores can be used to produce a fourfold topology of spouses who might be distinguished in terms of important characteristics of their marriage. Those high on PMQ and low on NMQ 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. More important, the PMQ–NMQ distinction allows two other categories to be identified among those who are usually simply labeled as moderately satisfied; those who score high on both PMQ and NMQ can be considered ambivalent spouses, whereas those scoring low on both measures could be described as indifferent spouses. Does this distinction advance understanding of those typically considered to be moderate in marital quality?

Overview and Hypotheses

The present analysis leads to two initial questions. Can positive and negative judgments of the marriage be assessed in such a way that they yield relatively independent dimensions of marital quality? If so, do these dimensions account for variance in known correlates of marital quality that is not captured by traditional measures such as the MAT?

Hypothesis 1

Consistent with the literature on attitudes and on affect, we hypothesized that PMQ and NMQ would be relatively independent. Specifically, a model specifying two marital quality factors would fit the data better than a model that contains only a single marital quality factor. Together, the two dimensions should describe marital quality in a more comprehensive fashion than existing, single-dimensional measures, an issue addressed in the remaining hypotheses.

Hypothesis 2

We expected that PMQ and NMQ scores would be related to known correlates of marital quality. Two correlates were examined, reports of spouse behavior and attributions for spouse behavior. In each case, two specific subhypotheses were tested:

1. PMQ and NMQ scores would account for significant variance in reports of behavior and attributions for partner behavior beyond that which could be attributed to MAT scores. As regards attributions, gender differences have been found in the association between attributions and marital satisfaction (e.g., Fincham &

Bradbury, 1993), and hence this finding was expected to be more robust for wives than for husbands.

2. The association between PMQ and NMQ and known correlates of marital quality does not simply reflect general affectivity. Specifically, the association between PMQ and NMQ scores and reports of behavior and attributions for behavior should remain significant when variance due to general positive and negative affect is removed from these associations.

Hypothesis 3

To examine the utility of the fourfold topology described earlier, two hypotheses were tested:

1. Ambivalent (high PMQ and high NMQ) and indifferent (low PMQ and low NMQ) spouses would not differ significantly in MAT scores, although both were expected to have significantly lower MAT scores than happy (high PMQ and low NMQ) spouses and significantly higher MAT scores than distressed (low PMQ and high NMQ) spouses.

2. Ambivalent and indifferent spouses would differ significantly in reports of behavior and of attributions. Specifically, ambivalent spouses would report relatively more negative behaviors and more negative attributions than would indifferent spouses.

Finally, we examined a possible boundary condition for using a two-dimensional assessment of marital quality. As noted, Diener and Emmons (1985) found that a two-dimensional structure for affect occurred for events a week or more in the past but not for immediate events. It is possible that a two-dimensional measure of marital quality might relate differently to events as a function of their recency. Consequently, we examined whether PMQ and NMQ scores and single-dimension MAT scores predicted differently reports of behaviors that had just taken place and behaviors that occurred during the preceding week.

Method

Participants

Participants in this study were 123 married couples recruited approximately 3 years earlier when they were involved in a larger longitudinal study of marriage. The couples had been recruited from among all couples for whom marriage licenses were issued in the county. The couples who were invited to participate met the following criteria: each spouse had at least a 12th-grade education, each spouse was in his or her first or second marriage, and the couple had no plans to move out of the area in the immediate future. Couples were paid $60 for their participation in this portion of the study.

Participants were predominantly Caucasian (91% and 91% for husbands and wives, respectively), in first marriages (81% and 74%), with mean age in the late 20s (M = 28.3 years, SD = 6.8, and M = 27.3, SD = 6.6), and generally some college education (M = 15.9 years, SD = 2.8, and M = 15.3 years, SD = 2.4).

Procedure

Couples came to research rooms at the university. In addition to filling out a number of forms and scales, each couple discussed a topic that they had independently identified as troublesome in their marriage. Of the 123 participants, 36 did not come to the lab, primarily because they had moved from the area. These 36 participants were mailed questionnaires and returned them by mail. Those returning questionnaires by mail did not differ significantly from those attending the lab session on any of the variables.

Measures

Marital quality. The Positive and Negative Quality in Marriage Scale (PANQIMS) is a six-item measure designed for this study as a brief, global assessment of positive and negative quality in marriage. The items are modeled on the format used by Kaplan (1972) and subsequent researchers to assess positive and negative dimensions of attitudes (cf. Thompson et al., 1995). Thus, the items explicitly instructed respondents to evaluate one dimension (positive or negative) at a time in three areas. The items used are shown in Table 1, with the full text of the items given in the appendix. For each item, respondents were instructed to indicate their response by circling a number from 0 (*Not at all*) to 10 (*Extremely*). Responses to the three items for each dimension were summed so that higher scores on each dimension reflected more positive and more negative evaluations, respectively. The internal consistency of each dimension was high (coefficient alpha for husbands = .87 and .91, and for wives = .90 and .89, for positive and negative dimensions, respectively).

The MAT (Locke & Wallace, 1959) is a frequently used measure of marital quality. Locke and Wallace reported split-half reliability of .90 and that the MAT discriminated between couples "judged to be excep-

Table 1
Intercorrelation of Items in Positive and Negative Quality in Marriage Scale for Husbands (Above Diagonal) and Wives (Below Diagonal)

Variable	1	2	3	4	5	6
1. Positive qualities of spouse	—	.67	.60	−.17	−.29	−.42
2. Positive feelings toward spouse	.78	—	.84	−.30	−.30	−.47
3. Good feelings about marriage	.70	.81	—	−.28	−.33	−.47
4. Negative qualities of spouse	−.27	−.29	−.35	—	.70	.73
5. Negative feelings toward spouse	−.26	−.33	−.37	.79	—	.86
6. Bad feelings about marriage	−.27	−.30	−.47	.71	.70	—

Note. In Items 1–3, participants were advised to ignore negative qualities or feelings. In Items 4–6, participants were advised to ignore positive qualities and feelings. The specific wording of the questions is in the appendix.

tionally well-adjusted in marriage by friends who knew them well" and participants who "were known to be maladjusted in marriage" (Locke & Wallace, 1959, p. 254). The MAT has also been shown to correlate with clinicians' judgments of marital discord (Crowther, 1985). Scores varied from 2 to 158, with higher scores reflecting greater satisfaction.

Positive and negative affect. The Positive and Negative Affect Schedule (PANAS; Watson et al., 1988) was used. The PANAS is composed of two scales: Negative Affect (NA) and Positive Affect (PA), which are assessed by means of self-rating on 10 adjectives each. When assessed, as in this study, with reference to the preceding year, the PANAS has moderate test–retest reliability and high internal consistency. PANAS scores were assessed to determine if associations between PMQ and NMQ and reports of behaviors and attributions were due to positive or negative general affect or reporting biases. PA and NA scores were computed by summing reponses to positive and negative items, respectively, so that higher scores reflected more positive affect and more negative affect.

Behavioral reports. A modified version of the Broderick and O'Leary (1986) form of the Spouse Observation Checklist was used to assess reports of behavior. Half of the 80 items are positive behaviors, and the other half are negative behaviors. Participants were instructed to recall what they were doing 1 week earlier. After they wrote down their descriptions, they were then asked to check off from a list of self and partner behaviors the behaviors that had occurred over the preceding week. Two similar versions of the lists were used and were balanced across couples. The total number of positive behaviors checked and the total number of negative behaviors checked comprised measures of positive and negative behaviors, respectively.

A more immediate report of behaviors was also obtained to examine the boundary conditions under which PMQ and NMQ might operate. Specifically, reports of behaviors that occurred during an immediately preceding discussion in the laboratory were also obtained. Spouses were given a list of 40 self and partner behaviors that might have occurred during the discussion and were asked to check off those that did occur. Again, the total number of positive and the total number of negative behaviors checked were computed.

An index of behavior was constructed that was guided by past research findings regarding reports of behavior. Howard and Dawes (1976) found that marital satisfaction is related to the arithmetic difference between rates of sexual intercourse and arguments. Veroff, Sutherland, Chadha, and Ortega (1993) found in conflicting interactions in mutual storytelling that the ratio of husbands' and wives' positive and negative responses were significantly related to marital strength. In neither study were the individual measures alone significantly related to marital satisfaction. Perhaps not surprisingly, Gottman (1994) showed that it is the ratio of positive to negative behaviors, rather than their base rates, that best distinguishes distressed from nondistressed couples. Accordingly, a single measure comprising the ratio of reported negative behaviors to positive behaviors was formed for the reports of behavior over the preceding week and for reports of discussion behaviors. Higher scores reflected a relative preponderance of negative behaviors and should be inversely related to MAT and PMQ scores and positively related to NMQ scores.

Attributions. The Relationship Attribution Measure (RAM; Fincham & Bradbury, 1992) was used to assess attributions. The RAM assesses causal attributions (locus, stability, and global dimensions) and responsibility attributions (intent, motivation, and blame dimensions) for negative partner behaviors. Causal and responsibility attribution indexes are formed by summing over individual dimensions and are related to observed spouse behaviors during problem-solving discussions (Bradbury & Fincham, 1992; Fincham & Bradbury, 1992) and predict marital satisfaction over a 12-month period (e.g., Fincham &

Bradbury, 1993). In the present study, coefficient alphas for the causal and responsibility composites were .85 and .89, respectively, for the husbands, and .88 and .91, respectively, for the wives. Higher causal attribution scores reflect causes that are located in the partner, are global or affect many areas of the marriage, and are stable or unchanging. Higher responsibility attribution scores show that the partner behavior is seen as more selfishly motivated, intentional, and blameworthy. Thus, the indexes reflect the extent to which spouses make conflict promoting attributions in that the attributions emphasize the impact of negative partner behaviors.

Results

Hypothesis 1

Table 1 shows the correlations among the items used in the PANQIMS. Confirmatory factor analysis using LISREL 7.20 was conducted to examine whether the PMQ and NMQ items reflected one or two underlying dimensions. When all six items were used as indicators of a single latent construct, a poor fit was found between the model and the obtained data for both husbands, $\chi^2(9, n = 123) = 226.81$, goodness-of-fit index (GFI) = .62; and wives, $\chi^2(9, n = 123) = 185.61$, GFI = .64. Interestingly, each of the indicator loadings for this unidimensional model was statistically significant (lambdas ranged from −.39 to .92 for husbands and −.41 to .90 for wives). This discrepancy between model fit and indicator loadings underscores the need to consider a multidimensional model of marital quality. A two-factor model in which positive and negative items were hypothesized to load on separate factors was therefore examined. The two-factor model provided a much better fit of data for husbands and wives: for husbands, $\chi^2(8, n = 123) = 19.35$, GFI = .95; for wives, $\chi^2(8, n = 123) = 20.75$, GFI = .95; the range of indicator loadings was smaller (lambdas ranged from .70 to .98 for husbands and .80 to .94 for wives). The factors were moderately correlated for wives ($r = .41$) and for husbands ($r = .51$).

To examine further whether a two-factor model is more appropriate than a unidimensional model, a model comparison procedure introduced by Bollen (1980) was used. By comparing the hypothesized two-factor model to a model where the zero-order association between the two dimensions of marital quality is constrained to be one (thereby positing a single factor), two- and one-factor models can be compared by interpreting the change in chi-square (per change in degrees of freedom) as a chi-square statistic. When the association between positive and negative dimensions was constrained to unity, there was a poor fit to the data for husbands, $\chi^2(9, n = 123) = 142.29$; for wives, $\chi^2(9, n = 123) = 114.76$. Allowing positive and negative dimensions to covary resulted in a significant change in chi-square for a one degree of freedom change for both husbands and wives (husbands, $\Delta\chi^2 = 122.94$; wives, $\Delta\chi^2 = 94.01$).

Finally, it could be argued that the positive and negative items having the same referent might give rise to separate dimensions, and hence a three-factor model was also examined. Each factor in this model was defined by a pair of corresponding items, one positive and one negative. This model did not fit the data for either husbands, $\chi^2(6, n = 123) = 143.28$, GFI = .73, or wives, $\chi^2(6, n = 123) = 171.86$, GFI = .68. Thus, it appears that the data obtained for marital quality items are best accounted for by a two-dimensional model in which positive and negative items define separate, but related, factors.[2]

Hypothesis 2

Table 2 shows the intercorrelations among MAT, PANQIMS, and PANAS scores and the means and standard deviations for these measures. Given the significant correlations obtained among these indexes, it is not surprising that each score tended to be significantly

[2] Although we used Kaplan's (1972) accepted method for assessing attitude dimensions, it can be argued that the emergence of PMQ and NMQ dimensions is an artifact of question wording. However, we obtained similar results with a modified version of the PANAS in which spouses rated the extent to which the affective adjectives referred to their feelings about the marriage. Using a sample of 100 couples, positive and negative marital PANAS scores were moderately and negatively correlated (husbands = −.42; wives = −.39). Moreover, the magnitude of the correlations between the PMQ score and positive marital PANAS score (husbands = .52; wives = .47) and the NMQ score and negative marital PANAS score (husbands = .38; wives = .57) suggests that the dimensions assessed by the PMQ and NMQ do not simply reflect affective ratings of the marriage and are not an artifact of question wording.

Table 2
Correlations Among Marital Adjustment Test Scores, Positive Marital Quality, Negative Marital Quality, and Positive Affectivity and Negative Affectivity for Husbands (Above Diagonal) and Wives (Below Diagonal)

Variable	1	2	3	4	5	*M*	*SD*
1. MAT	—	.63	−.58	−.58	.29	109.8	24.6
2. PMQ	.58	—	−.37	−.45	.31	26.3	3.2
3. NMQ	−.65	−.39	—	.39	−.29	11.0	6.8
4. NA	−.44	−.23	.49	—	−.29	21.4	7.5
5. PA	.58	.42	−.36	−.29	—	37.2	6.4
M	113.6	26.9	11.4	21.2	37.5		
SD	25.3	3.6	7.4	7.9	6.7		

Note. MAT = Marital Adjustment Test; PMQ = positive marital quality; NMQ = negative marital quality; NA = Negative Affectivity; PA = Positive Affectivity. All correlations significant at $p < .05$.

associated with known correlates of marital quality. Table 3 shows the correlations between the marital quality measures and general affectivity and reports of behavior and attributions. As expected, all the measures of marital quality correlated significantly with reports of behavior and with attributions.

To determine whether PMQ and NMQ scores accounted for unique variance in behaviors and attributions beyond that accounted for by a

Table 3
Correlations Between Reported Behaviors/Attributions and Marital Quality and General Affectivity

Variable	MAT	PMQ	NMQ	NA	PA
		Husbands			
Behavior					
Discussion					
Self	−.37**	−.43**	.44**	.29*	−.31**
Partner	−.38**	−.37**	.35**	.40**	−.15
Week					
Self	−.45**	−.45**	.36**	.43**	−.24*
Partner	−.62**	−.60**	.37**	.47**	−.34**
Attributions					
Cause	−.59**	−.42**	.43**	.45**	−.11
Responsibility	−.50**	−.40**	.42**	.28**	−.31**
		Wives			
Behavior					
Discussion					
Self	−.29*	−.19	.39**	.27*	−.26*
Partner	−.36**	−.25*	.50**	.23*	−.34**
Week					
Self	−.59**	−.58**	.48**	.42**	−.39**
Partner	−.59**	−.56**	.51**	.33**	−.33**
Attributions					
Cause	−.51**	−.33**	.54**	.46**	−.39**
Responsibility	−.33**	−.20*	.40**	.35**	−.18

Note. MAT = Marital Adjustment Test; PMQ = positive marital quality; NMQ = negative marital quality; NA = Negative Affectivity; PA = Positive Affectivity.
*$p < .05$. **$p < .01$.

traditional measure of marital quality, multiple regression analyses were conducted in which MAT scores and PMQ and NMQ scores were used to predict these variables. In these analyses MAT, PMQ, and NMQ scores were entered simultaneously into the equation. The unique variance associated with a predictor variable was obtained by omitting the predictor variable from the equation and recomputing the equation. The change in R^2 is the amount of unique variance associated with that predictor variable. The analyses pertaining to behavioral reports and to attributions are reported in turn.

Behavioral reports. Table 4 shows that for reports of discussion behaviors, MAT scores did not account for unique variance with PMQ and NMQ scores entered into the equation. However, for wives' reports of husbands' behavior and for husbands' reports of their own behaviors, NMQ and PMQ scores together explained significant variance beyond that explained by the MAT scores. In the case of wives' reports of their own behavior, unique variance explained by NMQ and PMQ scores together was marginally significant ($p < .06$). Turning to reports of behaviors over the preceding week, PMQ and NMQ scores together accounted for unique variance in all four dependent variables. Table 4 also shows the unique variance associated with individual PMQ and NMQ scores. For husbands, PMQ scores tended to account for unique variance, whereas for wives NMQ scores tended to do so. Finally, MAT scores also explained significant unique variance in the husbands' reports of partner behavior and in both types of behaviors reported by wives.

Does the unique variance captured by PMQ and NMQ simply reflect overall spousal affectivity? To examine whether PMQ and NMQ accounted for variance above and beyond that of spousal affectivity, regression analyses were conducted in which PMQ and NMQ scores and the PA and NA scores from the PANAS were used to predict the reports of behaviors. In every case NMQ and PMQ scores together explained significant additional variance beyond that

Table 4
Unique Variance in Behaviors and Attributions Explained by Measures of Marital Quality

	MAT		PMQ and NMQ		PMQ		NMQ	
Variable	ΔR^2	F	ΔR^2	F	ΔR^2	F	ΔR^2	F
				Husbands				
Behavior								
Discussion								
Self	.00	<1	.13	6.07**	.05	4.72*	.05	5.26*
Partner	.01	1.11	.05	2.27	.02	1.86	.02	1.85
Week								
Self	.02	2.15	.06	4.34*	.05	6.72*	.01	1.86
Partner	.07	14.66**	.07	6.93**	.07	13.85**	.00	<1
Attributions								
Cause	.10	16.82**	.02	1.29	.00	<1	.01	1.90
Responsibility	.04	5.86*	.04	2.85	.01	1.87	.03	3.80
				Wives				
Behavior								
Discussion								
Self	.00	<1	.07	2.93	.00	<1	.07	5.74**
Partner	.00	<1	.13	6.18**	.01	<1	.12	11.90**
Week								
Self	.04	6.57*	.10	9.38**	.08	16.00**	.01	2.59
Partner	.03	5.86*	.10	9.23**	.07	13.20**	.03	4.97*
Attributions								
Cause	.03	4.30*	.08	5.85**	.00	<1	.07	11.50**
Responsibility	.01	<1	.06	3.74*	.00	<1	.06	7.47**

Note. MAT = Marital Adjustment Test; PMQ = positive marital quality; NMQ = negative marital quality.
*$p < .05$. **$p < .01$.

explained by NA and PA scores. Moreover, the unique variance associated with individual PMQ and NMQ scores remained with one exception: NMQ scores no longer accounted for unique variance in husbands' reports of their own behavior during the discussion.

Attributions. In regard to attributions, regression analyses showed that PMQ and NMQ scores together explained significant variance beyond that explained by MAT scores for causal and responsibility attribution scores for wives. In both cases, NMQ scores accounted for unique variance. However, PMQ and NMQ scores were only marginally significant in accounting for unique variance in husband's responsibility attributions and did not explain unique variance in their causal attributions.

Were the associations between attributions and marital quality due to spousal affectivity? The regression analyses in which PMQ and NMQ and PANAS scores were used to predict attributions showed that PMQ and NMQ scores explained unique variance in wives' attributions when used together with PANAS scores to predict attributions. In both cases, NMQ continued to account for unique variance. The associations found for marital quality were thus not simply a function of general negative or positive affect or reporting bias.

Hypothesis 3

To examine the utility of using NMQ and PMQ dimensions to differentiate among spouses who are normally classed together as moderately happy, groups of ambivalent and indifferent spouses were formed on the basis of scores on PMQ and NMQ measures. Groups for husbands and for wives were formed independently. Ambivalent groups were composed of those who scored above the median on PMQ (scores of 27 or higher for husbands and scores of 28 or higher for wives) and above the median on NMQ (scores of 11 or higher for husbands and scores of 10 or higher for wives). Indifferent groups comprised spouses who scored below the median on both dimensions. As shown in Table 5, ambivalent and indifferent husbands and ambivalent and indifferent wives did not differ significantly in MAT scores. Ambivalent and indifferent husbands and wives had significantly lower MAT scores than happy husbands and wives had, respectively, and significantly higher MAT scores than distressed husbands and wives had, respectively.

Table 5
Marital Adjustment Test Scores of Groups Formed on the Basis of Positive and Negative Marital Quality Dimensions

Spouse and group	*M*	*SD*	*n*
Husbands			
Distressed	87.5_a	30.1	35
Indifferent	113.8_b	9.8	16
Ambivalent	111.7_b	14.6	26
Happy	126.9_c	13.0	26
Wives			
Distressed	90.7_a	28.2	32
Indifferent	120.6_b	17.5	22
Ambivalent	115.6_b	17.4	24
Happy	129.2_c	12.6	24

Note. Within gender, groups with the same subscript do not differ significantly ($p < .05$) from each other.

To determine the value of distinguishing ambivalent from indifferent spouses, the correlates of these two groups were examined. For husbands, ambivalent and indifferent groups did not differ significantly in attributions or reports of behavior. In regards to wives, significant differences were found between ambivalent and indifferent groups in attributions and in reports of behavior, both during the preceding week and during the discussion and for the self and partner. Table 6 shows that ambivalent wives attributed significantly more cause and responsibility to their partners for negative events. Furthermore, compared with their indifferent counterparts, ambivalent wives reported higher ratios of negative to positive behaviors both for themselves and for their partners, in reports concerning the preceding week as well as in reports regarding the discussion. Finally, these two groups were compared with distressed and happy groups. For all indexes of behaviors and attributions, ambivalent wives differed from happy spouses but not from distressed spouses, and indifferent spouses differed from distressed spouses but not from happy spouses.

Finally, it should be noted that time frame did not operate as a boundary condition for the two-dimensional measure of marital quality. As noted above, PMQ and NMQ scores accounted for unique variance in reports of both discussion behaviors and behaviors that occurred in the

Table 6
Behaviors and Attributions of Ambivalent and Indifferent Wives

Dependent measure	Ambivalent			Indifferent			$t(45)$	p
	M	*SD*	*n*	*M*	*SD*	*n*		
Behavior								
Discussion								
Self	0.60	0.35	17	0.42	0.24	17	−1.70	.049
Partner	0.52	0.29	17	0.35	0.20	17	−2.00	.027
Week								
Self	0.50	0.19	24	0.32	0.16	22	−3.64	.001
Partner	0.43	0.21	24	0.24	0.15	22	−3.54	.001
Attributions								
Cause	46.22	5.11	23	38.73	9.81	22	−3.23	.001
Responsibility	33.13	8.83	23	27.73	9.47	22	−1.98	.027

Note. The probabilities reported for *t* tests are all one-tailed, predicting larger values in the ambivalent group.

preceding week. None of the corresponding correlations between PMQ and NMQ scores and reports of discussion behaviors and behaviors that occurred in the preceding week differed significantly.

Discussion

An assumption found in most existing measures of marital quality is similar to that found in research on attitudes (Thompson et al., 1995) and affect (Watson et al., 1988), namely, that negative and positive elements are opposite poles of a single dimension. Although such a bipolar hypothesis is intuitively compelling, recent research in attitudes and affect has provided support for the view that positive and negative dimensions are more accurately seen as separate and are, at most, only moderately negatively correlated.

Building on this broader literature, the present study offers a simple conceptualization of marital quality that is consistent with current interpretations of scores yielded by widely used omnibus measures such as the MAT and DAS, and shows how this conceptualization can advance understanding beyond that captured by traditional measures of marital quality. Specifically, Fincham and Bradbury's (1987) view that marital quality is best conceptualized in terms of evaluative judgments is elaborated to include positive and negative dimensions, and a means of assessing the dimensions is introduced. As hypothesized, a two-dimensional model that included positive and negative factors of marital quality provided a better fit to the obtained data compared with one- and three-dimensional models that did not fit the data at all. Moreover, when the path between the latent constructs of PMQ and NMQ was constrained to unity, as implied by a unidimensional model, the model fit was significantly poorer than when the model allowed for two correlated factors.

Finally, for both husbands and wives, the magnitude of the correlations between PMQ and NMQ scores was similar to those found between positive and negative dimensions of attitudes in social psychological research. The moderate correlation between the dimensions most likely reflects the fact that use of either top-down or theory-driven processing of partner behavior mitigates against viewing the behavior in terms of the other dimension, resulting in a moderate negative correlation between the dimensions over time.

The existence of associated PMQ and NMQ dimensions assumes significance in view of the fact that they correlated with behavior and attributions in a theoretically meaningful manner. These correlations were not simply due to shared variance with MAT scores, as PMQ and NMQ scores together accounted for unique variance in two of the four reports of discussion behaviors and in all four reports of behaviors for the preceding week. Interestingly, PMQ scores alone accounted for unique variance in husbands' reports of behavior. For wives, NMQ scores accounted for unique variance in reports of discussion behaviors, whereas both NMQ and PMQ indexes accounted for unique variance in reports of partner behavior over the preceding week. Although the reason for this specific

pattern of findings is not clear, it most likely reflects the greater salience and importance of relationships for women who also tend to have more complex and differentiated conceptions of relationships than men do (Wong & Czikszintmihalyi, 1991). In any event, the findings illustrate the joint and individual importance of PMQ and NMQ dimensions.

Although MAT scores also accounted for unique variance in three of the four reports of behaviors over the preceding week, they did not account for unique variance in reports of discussion behaviors. In view of the fact that little research has been conducted to examine partner behavior between, rather than during, interactions (Fincham, 1995; Hinde, 1979), this finding is particularly noteworthy. The behaviors that spouses remember from an interaction are likely to influence their thoughts and feelings between interactions and thereby shape the course of future interactions.

Thus, contrary to the implications of Diener and Emmon's (1985) finding, the usefulness of the one-dimensional measure varied as a function of time frame. It may be that reporting behaviors on a checklist immediately following an event does not allow for as much influence from a single-dimensional assessment that aggregates positive and negative elements. Thus, for example, a husband who feels very angry at his wife following a discussion may be able at first to engage in bottom-up processing and recognize that she showed some behaviors that may be regarded as positive. However, his overall sentiment may influence his recall of events over the preceding week reflecting concept-driven or top-down processing. Although speculative, these possibilities are worth investigating in view of the sentiment override hypothesis, according to which spouses respond noncontingently to the partner and to questions about the partner or marriage; their responses ignore relevant information and instead simply reflect their overall marital satisfaction or sentiment toward the partner (Weis, 1980). If the time referent for questions influences responses in the manner suggested, this would provide an important qualification of the sentiment override hypothesis.

In regards to attributions, PMQ and NMQ scores together explained unique variance only in wives' causal and responsibility attributions with NMQ scores also accounting for unique variance. The different pattern of results for husbands and wives is consistent with prior attribution findings and may reflect the widespread view that women are more attuned to relationship events and often serve as barometers of the relationship functioning. It is important to note that none of these findings can be attributed to spouses' general negative affectivity, as relations between PMQ and NMQ scores and behaviors and attributions remained significant when levels of positive and negative affectivity were partialed out of the relations.

The utility of distinguishing PMQ and NMQ dimensions was further investigated by examining four groups derived by combining high and low scores on each dimension. For both husbands and wives, MAT scores of spouses scoring high on one dimension and low on the other dimension (happy and distressed spouses) differed significantly from those scoring high on both dimensions (ambivalent spouses) and low on both dimensions (indifferent spouses). As expected, ambivalent and indifferent spouses did not differ significantly in MAT scores, suggesting that the two-dimensional analysis of marital quality developed in this article can be used to make a distinction that does not emerge with a conventional unidimensional measure. The importance of this distinction is underlined by the finding that ambivalent and indifferent wives differed in causal and responsibility attributions as well as in reports of behaviors. Why this difference was found for wives and not husbands is unclear but may again reflect the differential importance of relationships for men and women, which may result in women holding more complex, differentiated conceptions of relationships than men do.

In summary, the present study offers a conceptualization of marital quality that is theoretically clear and avoids many of the problems that arise when interpreting scores from omnibus measures of marital quality. Moreover, the present study shows how the theoretical conception offered can be used to generate a simple assessment of marital quality and documents how this assessment advances our understanding of marriage. This is noteworthy given the loose association found in the marital literature between constructs and measures, a circumstance that has impeded research on marital quality.

Implications and Limitations

Distinguishing between positive and negative dimensions of marital quality can provide a more differentiated picture of marriage. This is important at both theoretical and practical levels. The theoretical significance has been developed in detail by Fincham, Beach, and Kemp-Fincham (1997). It is briefly illustrated by considering change in marital quality. Unidimensional measures can only provide a global index of change in marital quality, whereas the analysis offered here suggests that changes in marital quality may follow several different paths. Although the dimensions are conceptualized as continuous, for illustrative purposes this is demonstrated by means of the fourfold topology described earlier. It would be theoretically important, for instance, if happily married spouses first became indifferent and then ambivalent before becoming distressed, as compared with a progression from happiness to ambivalence to indifference to distress. Such three-step progressions may, in turn, differ in important ways from a two-step progression from happiness through either ambivalence or indifference to distress or even a one-step progression where a spouse following a critical event (e.g., partner's affair) changes from being happy to being distressed without any intermediary stages. Documenting the existence of different avenues of change in marital quality, examining their determinants, and exploring their consequences suggest a program of research that may do much to advance our understanding of how marriages succeed and fail.

At the practical level, the two-dimensional conception offered here is equally important. Global evaluations of the marriage, rather than a particular behavior or set of behaviors, represent the final common pathway through which marital dysfunction is expressed when, for example, spouses seek professional help (Jacobson, 1985). But how spouses reach such an overall evaluation may be important in alleviating distress. Is there a threshold for negative sentiment about the marriage that, once crossed, leads a spouse to express marital dysfunction regardless of his or her positive feelings? Or does the magnitude of the discrepancy between positive and negative evaluations drive the expression of marital distress? The first possibility suggests a focus on changing the determinants of the negative evaluations, whereas the second allows for also building on determinants of positive evaluations. Identifying the determinants of positive and negative evaluations of the marriage, determining how the two dimensions combine to produce overall evaluations of the marriage, and documenting factors that moderate the influence of each would advance our understanding of marriage at both practical and theoretical levels.

The limitations of the present study, however, suggest the need for caution in interpreting the findings. One clear limitation concerns the sample, which did not reflect the diversity in race, ethnicity, and type of relationship (e.g., cohabitation) representative of intimate relationships in society as a whole. Generalizing the findings to the population as a whole therefore awaits replication with a more diverse sample. The preliminary nature of the findings is also indicated by the absence of norms for determining cut-off criteria in the use of PMQ and NMQ scores. The criteria used to form the four marital quality groups investigated were therefore idiosyncratic to the sample studied, and the findings obtained may therefore reflect these idiosyncratic criteria. It is particularly important to note that PMQ scores were much higher than NMQ scores, and this disparity needs to be borne in mind when interpreting results pertaining to groups formed on the basis of these scores.

Notwithstanding such limitations, the present study suggests that conceptualizing and investigating marital quality as a two-dimensional construct comprising correlated positive and negative evaluative judgments may be more fruitful than continuing to treat it as a single-dimensional, bipolar construct captured by heterogeneous measures that have an unclear theoretical interpretation.

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(Appendix follows)

Appendix

Items in the Positive and Negative Quality in Marriage Scale

Items Measuring Positive Quality in Marriage

1. Considering only the positive qualities of your spouse, *and ignoring the negative ones,* evaluate how positive these qualities are.
2. Considering only positive feelings you have towards your spouse, *and ignoring the negative ones,* evaluate how positive these feelings are.
3. Considering only good feelings you have about your marriage, *and ignoring the bad ones,* evaluate how good these feelings are.

Items Measuring Negative Quality in Marriage

4. Considering only the negative qualities of your spouse, *and ignoring the positive ones,* evaluate how negative these qualities are.
5. Considering only negative feelings you have towards your spouse, *and ignoring the positive ones,* evaluate how negative these feelings are.
6. Considering only bad feelings you have about your marriage, *and ignoring the good ones,* evaluate how bad these feelings are.

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