

Predicting Marital Stability and Divorce in Newlywed Couples

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ABSTRACT

A longitudinal study with 95 newlywed couples examined the power of the Oral History Interview to predict stable marital relationships and divorce. A principal-components analysis of the interview with the couples (Time 1) identified a latent variable, perceived marital bond, that was significant in predicting which couples would remain married or divorce within the first 5 years of their marriage. A discriminant function analysis of the newlywed oral history data predicted, with 87.4% accuracy, those couples whose marriages remained intact or broke up at the Time 2 data collection point. The oral history data predicted with 81% accuracy those couples who remained married or divorced at the Time 3 data collection point. This study offers support for causal linkages between perceptual biases and selective attention on the path of marriage.

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Why do marriages last? Given the grim divorce statistics and the repercussions of divorce, navigating the road of marital stability seems a hazardous task. Nearly one third of all marriages fail within the first 5 years ([National Center for Health Statistics, 1991](#)), and between one half and two thirds end in divorce ([Cherlin, 1992](#) ; [Martin & Bumpass, 1989](#)).

The consequences of separation and divorce can be severe. Research indicates that individuals who are separated from their spouses or divorced experience greater rates of psychopathology, physical illness, suicide, homicide, violence, and mortality from disease (e.g., [Berkman & Breslow, 1983](#) ; [Berkman & Syme, 1979](#) ; [Bloom, Asher, & White, 1978](#) ; [Burman & Margolin, 1992](#)). In light of these marital

stability statistics and the greater risk for mental and physical health problems among separated and divorced individuals, identifying the factors that help marriages survive has important implications. Furthermore, understanding how these factors influence marital stability will help build a theory of marital quality and stability. This was the objective of the present study.

One area of marital research that is receiving increasing attention is marital cognitions. [Fincham, Bradbury, and Scott \(1990\)](#) have suggested that it is important to understand the role cognitions play in driving emotional expression, behavioral interactions, and satisfaction in marriage. Much of the cognitive research has been in the area of attribution, focusing on the explanations spouses give for behavior within the marriage (e.g., [Epstein, Pretzer, & Fleming, 1987](#); Fincham & Bradbury, 1987; [Holtzworth-Munroe & Jacobson, 1985](#); Kyle & Falbo, 1985; Thompson & Snyder, 1986). Baucom and his associates ([Baucom, Epstein, Sayers, & Sher, 1989](#)) provided an overview and structure for the study of cognition in marriage. They suggested that, in addition to attributions, cognitive phenomena taking place in intimate relationships include expectancies (predicting future outcomes from current interactions), assumptions (how people think the world operates), standards (how the world should operate), and the perceptual process of selective attention (the aspects of an event to which an individual pays attention on the basis of a cognitive schema). The present study focused on perceptual bias and the tendency to selectively attend to only certain characteristics of events. More specifically, a primary goal was to determine the influence of the couple's relationship perceptions on the stability of the marriage.

According to Gottman ([1993](#), 1994), perception is one of the three domains (perception, physiology, and behavior) that individually and together act as interactive thermostats in marriage. In this "core triad of balance" theory, Gottman has proposed that each of the three domains has the potential for balance, a homeostatic set point associated with harmony in the marriage. Each of the domains has a negative threshold that, when exceeded, results in increased instability within the marriage. Because these three domains are interactive and overlapping, changes in one domain can cause repercussions in another domain. For example, among newlywed couples who remained happily married over the first 6 years of their marriage, a wife's use of humor in a conflict discussion is associated with a decrease in the husband's heart rate ([Gottman, Coan, Carrère, & Swanson, 1998](#)).

Perceptions play a special role in this core triad of balance theory. The perceptual component of the theory builds on previous cognitive marital research (e.g., Fincham et al., 1990; [Notarius, Benson, Sloane, Vanzetti, & Hornyak, 1989](#); Weiss, 1980). Fincham et al. (1990) argued that cognition could be used in marriage to understand past and present events. This perceptual framework for past and present events shapes the expectations and behaviors of the spouses in the future. Fincham et al. used the information-processing approach from cognitive theory to describe how memory and marital cognitions are associated. Information is organized and structured in memory on the basis of what is cognitively salient. Likewise, the more salient and thematically coherent the organization of the memory, the more likely the individual is to retrieve particular types of events from memory. [Bradbury and Fincham \(1987\)](#) linked memory and affect, arguing that individuals are most likely to retrieve units of memory that are congruent with the present mood they are experiencing. Thus, distressed couples are more likely to remember negative events than positive ones. [Fincham et al. \(1990\)](#) went on to theorize that these negative events from the past are used by the unhappy spouses to make sense of present marital interactions and to shape future behavior.

[Weiss \(1980\)](#) described a relationship process, sentiment override, that includes many of the same cognitive linkages described by [Fincham et al. \(1990\)](#). Weiss defined sentiment override as the tendency to assess one's spouse's behavior as either positive or negative on the basis of more globally held perceptions about the partner rather than the objective nature of the partner's immediate behavior. Sentiment override is a kind of perceptual filter with which one views the behavior of one's spouse. Notarius and his associates (1989) reported that negative sentiment override is associated with distressed

wives' tendency to rate their husbands' neutral and negative behavior as more negative than do other wives. This perceptual filter appears to result in selective attention as well. What someone pays attention to and remembers is a function of his or her perceptual filter. For example, Robinson and Price (1980) had trained observers go to both distressed and nondistressed couples' homes and evaluate the behavior of the couples. The couples also evaluated their own behavior. Robinson and Price found that the distressed couples underreported the number of positive events. Thus, these distressed couples selectively attended to negative interactions and did not accurately remember the number of positive events.

Does the manner in which spouses remember the past and their cognitive schema about their partner and the marriage help in predicting the future stability of the marriage? Our laboratory has produced some evidence that it does. [Buehlman, Gottman, and Katz \(1992\)](#) used the Oral History Interview (Krokoff, 1984a) to measure spouses' global perceptions about their marriage and each other (in this study, we refer to global marital perceptions as the perceived marital bond). In a joint interview, spouses were asked to tell the story of their relationship from the time they met until the present day. The couples were also asked about the good and hard times in their marriage, as well as their philosophy about marriage. The interview was coded for how the couple told their story rather than based on the content of what they said. The interview measured the couple's perceptions by focusing on the positive or negative qualities of the relationship that predominated in the telling of the story. The coding system is consistent with Fincham et al.'s (1990) thesis that individuals are most likely to retrieve units of memory that are congruent with their present perceptions about the marriage.

Using the Oral History Interview, [Buehlman and her associates \(1992\)](#) were able to predict, with 94% accuracy, those couples who would divorce or stay married in a longitudinal study of 56 married couples. The couple's perceived marital bond was associated with marital stability. Couples in which spouses were more critical of their partners, disillusioned about the marriage, and believed the challenges of the marriage were outside their personal control were more likely to have divorced by the 3-year follow-up. Hence, how a couple told the story of their relationship could predict their likelihood of marital stability or divorce.

[Buehlman et al.'s \(1992\)](#) work suggests that global perceptions held by couples about their marriage and each other help predict the future course of the marriage, but the generalizability of the study outcomes is limited because the study was conducted with a sample of married couples at one specific point in the life cycle of a marriage (i.e., couples with preschoolers). Can the marital perceptions indexed by the Oral History Interview provide insights about the future of a marriage when global perceptions are measured at different stages of the marital life cycle? For example, are perceptions about one's spouse and the marriage in a greater state of flux at the beginning of a marriage? The couples in Buehlman et al.'s study had young children and had been married at least 4 to 5 years before participating in the research. The global marital perceptions of the couples in their study may have had time to form and solidify. In contrast, early married life appears to be a period of change and adjustment. Spouses' perceptions of each other and the marriage may be in the process of forming or may be more fluctuating in nature as the spouses adjust to each other.

Although some studies show that patterns of future marital instability can be found in premarital and early marital relationships ([Gottman, 1979](#) ; Markman, 1981 ; Markman, Floyd, Stanley, & Storaasli, 1988), there is reason to believe that newlywed couples may be very different from couples who have been married longer or who have become parents. Research indicates that newlyweds are in a period of flux, and their patterns of interaction may be more open to influence and change (Behrens & Sanders, 1994 ; Hawley & Olson, 1995). For example, [Noller and Feeney \(1998\)](#) found that, during the first 2 years of marriage, couples changed their communication patterns. [Markman, Floyd, Stanley, and Jamieson \(1984\)](#) theorized that each stage of marriage has its own developmental challenges. They

proposed that the developmental task for newlyweds is to learn how to communicate successfully and find ways to resolve conflict in a constructive fashion.

[Gottman \(1994\)](#) and others (e.g., Fincham et al., 1990) have argued that perceptions are influenced by behavior, and thus it is likely that newlyweds' communication and conflict-resolution adjustments are influencing and changing the couple's marital perceptions. By the time couples become parents, many of their patterns of communication and perceptions about the marriage and their partner may have lost the plasticity of the newlywed phase. This plasticity in newlywed couples may make it more difficult to measure the stable global perceptions the spouses have of each other and the marriage that were predictive of future marital quality and divorce in the [Buehlman et al. \(1992\)](#) research. The reason is that these global marital perceptions have not yet "jelled."

In addition to the plasticity and openness to change more apt to be found among newlyweds, these couples are not as likely to have the history of experience with each other required to develop a sense of unity and identity as a married couple. In the original study by [Buehlman and her colleagues \(1992\)](#), a couple's perception of unity and their belief that their struggles against hard times made their relationship stronger were both important components of what predicted marital stability. Will a shorter relationship history for newlyweds mean these couples have not yet had the opportunity to develop a marital bond and an identity as a married couple? If they have not reached this stage in the development of their relationships, the Oral History Interview would incorrectly produce results indicating that these newlyweds are distressed rather than correctly reflecting the adjustments and beginning stages of developing a sense of unity as a couple. All of this suggests that the Oral History Interview may not accurately assess the global marital perceptions held by newlyweds because these marital perceptions are still fluctuating and because these couples have not had enough history together to form perceptions designed to be measured by certain dimensions of the Oral History Interview scale (e.g., a sense of unity).

The goal of this study was to examine how the perceptions newlyweds have about their partner and the marriage in the 1st year of marriage influence the stability of the marriage. We wanted to determine whether the Oral History Interview is a cognitive measure of global marital perceptions that has predictive validity for married couples at different stages of the marital life cycle. It would strengthen the external validity of the instrument if similar patterns in the Oral History Interview predict divorce and marital stability in both newlywed couples and couples married for longer periods of time.

Method

Participants

Between 1989 and 1992, a two-stage sampling procedure was used to draw a sample of newlywed couples from the Puget Sound area in Washington. Couples were initially recruited via newspaper advertisements. Newlyweds interested in participating in the study were asked to phone the laboratory and leave information so that they could be contacted. The wives in these marriages were then administered a screening telephone interview that included the telephone version of the Marital Adjustment Test (MAT), a scale measuring marital satisfaction ([Krokoff, 1984b](#) ; Locke & Wallace, 1959). For financial and logistical reasons, only the wives were interviewed at this screening stage of the study. To be eligible for the study, the couples had to have married for the first time within 6 months of participating in the study, had to be childless, and had to have no serious illnesses (e.g., cancer, cardiovascular disease, or emphysema). The sample was selected so that there was an even distribution of marital satisfaction among the wives' scores on the telephone version of the MAT. By even distribution of marital satisfaction, we mean that we had equal numbers of wives at each point of the

marital satisfaction distribution. This is in contrast to a bell-shaped distribution that has greater numbers of individuals in the middle of the distribution. This even distribution was chosen so that we might oversample both the very happy and the very distressed couples. The sample was also selected to match the racial and ethnic demographics of the metropolitan Seattle area ([City of Seattle Planning Commission, 1990](#)).

The newlywed study involved several components, including a laboratory-based marital interaction session, a 24-hr stay in a studio apartment laboratory, a longitudinal follow-up study (a 1-year follow-up after the marital interaction session and yearly telephone interviews and mailed questionnaires between 1993 and 1998), and research on the couples' transition to parenthood. This article focuses on the study participants who took part in the marital interaction sessions (which included the Oral History Interview and questionnaire data) and the longitudinal study.

One hundred thirty couples were initially selected to participate in the first phase of the study, the laboratory-based marital interaction session. The demographic characteristics of these newly married couples at first contact were as follows: (a) wife's mean age = 25.40 years ($SD = 3.50$); (b) husband's mean age = 26.54 years ($SD = 4.22$); (c) wife's mean marital satisfaction score = 120.45 ($SD = 19.69$); and (d) husband's mean marital satisfaction score = 115.87 ($SD = 18.41$). Couples had a combined median income between \$25,000 and \$39,000. The mean education level for both husbands and wives in the study was a 4-year college degree. Sixty-four percent of the couples had lived together before getting married.

Ninety-five couples completed a marital interaction laboratory session, the Oral History Interview, and the longitudinal components of the newlywed study. Of the original 130 couples, 35 did not complete all three of these components of the study. Analyses were conducted to compare the couples who completed all three components with the couples who did not. There was no significant difference in marital satisfaction scores for the husbands ($M = 115.21$, $SD = 17.63$, for husbands in the incomplete data group; $M = 115.83$, $SD = 19.00$, for husbands in the complete data group), $t(121) = -0.15$, *ns*. Nor was there a significant difference in the marital satisfaction scores for the wives ($M = 115.04$, $SD = 22.19$, for wives in the incomplete data group; $M = 121.12$, $SD = 18.62$, for wives in the complete data group), $t(121) = -1.44$, *ns*. There was a significant age difference between the groups of husbands. The husbands in the incomplete data group ($M = 24.88$ years, $SD = 4.87$) were about 2 years younger, on average, than the husbands in the complete data group ($M = 26.91$ years, $SD = 3.87$), $t(121) = -2.18$, $p < .05$. The wives in the incomplete data group ($M = 24.10$ years, $SD = 2.86$) were also significantly younger than the wives in the completed data group ($M = 25.86$ years, $SD = 3.70$), $t(121) = -2.19$, $p < .05$. The couples in the completed data set were more likely to have lived together before getting married (73% of the complete data couples vs. 46% of the incomplete data couples). The median income for both groups was between \$25,000 and \$39,000. The degrees of freedom for these *t*-test analyses were reduced because of incomplete data for some of the couples on the demographic variables.

Measures and Materials Oral history coding.

The Oral History Interview is a semistructured interview conducted with both the husband and wife present (the questions that compose the interview can be found in [Buehlman & Gottman, 1996](#)). The interview explores the history of the couple's relationship, the spouses' philosophy about marriage, and how their parents' marriages compare with their own marriage. Questions about the history of the relationship focus on the couple's courtship, their wedding, and the good and hard times of their marriage. When the spouses discuss their philosophy of marriage, they are asked to think of a good marriage and a bad marriage and discuss the differences between these kinds of marriage ([Buehlman et al., 1992](#)).

The Oral History Interview coding system measures spouses' global perceptions about the marriage and about each other (see Buehlman & Gottman, 1996, for a complete description of the observational origins of the coding system and detailed guidelines on the coding rules used for each subscale of the system). The thesis of the coding system is consistent with [Fincham et al.'s \(1990\)](#) proposal that individuals are most likely to retrieve units of memory that are congruent with their present perceptions about the marriage. Rather than coding the content of the interview (e.g., how long the couple dated before becoming engaged, whether the couple has children, and whether the couple has a good relationship with in-laws), the coding system indexes how the couple tells the story of the relationship. More specifically, it focuses on the positive or negative nature of what the spouses choose to recall from the history of their relationship. For example, some couples minimize negative aspects and emphasize the romance or naturalness of the relationship. Other couples can only remember how hard it was to get together and what a struggle the marriage has been.

The coding system also measures how each spouse describes and talks about his or her partner in the telling of the story. Again, the focus is on the tenor of the description over the course of the interview. For example, when they are asked to describe what first attracted them to their partner, do spouses seem unsure, or do flattering descriptions of their partner's personality or appearance readily come to mind for them? In a similar fashion, the coding system takes into account how the spouses interact as they tell the story of their relationship. For example, do they tease each other? Do they finish each other's sentences and validate what the other person has said? Alternatively, do they snipe at each other, argue about the history of events, or describe their spouse or the history of the marriage in cynical or disillusioned tones?

The coding system taps into global marital perceptions via eight dimensions—subscales (Fondness/Affection, We-ness, Expansiveness, Negativity, Disappointment and Disillusionment, Chaos, Volatility, and Glorifying the Struggle). These subscales originally came from Oral History Interview observations (see Buehlman & Gottman, 1996; Buehlman et al., 1992). Buehlman and Gottman (1996) created the coding system to determine whether the way in which spouses talked about their marriage and each other could provide insights about marital stability or divorce trajectories. [Buehlman et al. \(1992\)](#) tested the psychometric properties of the instrument in their study of married couples with young children and found the Oral History Interview coding system to have good internal construct validity as well as strong predictive validity. The current study extends the construct and external validity of [Buehlman et al.'s \(1992\)](#) research.

Each of the eight subscales of the Oral History Interview is made up of six to nine items. The coder scores the spouses on each item using a 5-point Likert-type scale ranging from *strongly agree* to *strongly disagree*. Three of the subscales are positive in nature: (a) Fondness/Affection, (b) We-ness, and (c) Expansiveness. Each of these three positive subscales is rated separately for the husband and for the wife, but the items are identical for both the husband and the wife. The Fondness/Affection scale rates each spouse's expressions of pride, fondness, and affection for his or her partner. This subscale includes items such as "Husband compliments wife during the interview" (husband's subscale) and "Wife is proud of her husband or specific qualities about her husband" (wife's subscale). The We-ness scale reflects the degree to which each spouse uses terms during the interview that indicate unification in the marriage. Examples of items from this subscale include "Wife emphasizes 'we' as opposed to 'he' or 'I'" (wife's subscale) and "Husband emphasizes the same beliefs, values, and goals as his wife" (husband's subscale). The Expansiveness scale measures how expressive and expansive the spouses are in the interview. This dimension indexes not only how expressive each spouse is but also how the spouses respond to and expand on what their partner is saying. This is in contrast to spouses who respond to questions with a few short sentences, seem withdrawn, and do not add to what their partner says. Example items include "Wife recalls easily their first date, proposal, wedding, etc." (wife's subscale) and "Husband expands on what his wife is describing or saying" (husband's subscale).

Two of the coding dimensions are negative: (a) Negativity and (b) Disappointment and Disillusionment. Both of these negative coding dimensions involve separate subscales for the husband and the wife, but the items are identical. The Negativity scale indexes the extent to which spouses are critical of their partner, are vague about what attracted them to their partner, and display negative affect toward their partner. Examples of the items used to code this subscale include "Husband does not know what attracted him to his wife" (husband's subscale) and "Wife disagrees with husband during the interview" (wife's subscale). The Disappointment and Disillusionment scale assesses the degree to which each member of the couple has given up on the marriage by expressing depression about the relationship or not being able to articulate what makes the marriage work. Example items include "Husband is depressed when talking about his marriage" (husband's subscale) and "Wife mentions how difficult their marriage is or marriage in general is" (wife's subscale).

Three subscales evaluate information about how the couple reports handling marital conflict: (a) Chaos, (b) Volatility, and (c) Glorifying the Struggle. Each of these subscales involves one score per couple. The Chaos scale rates the degree to which the couple feels out of control of their lives and buffeted about by elements outside of their control. Example items include "The couple has a lot of unexpected or out of control marital conflict" and "The couple believe unexpected problems have weakened their relationship." The Volatility scale measures the intensity, both positive and negative, of the spouses' feelings for each other. Highly volatile couples express feelings of great passion and yet fight frequently. Examples of items that are used to measure this subscale include "The couple mention they like a good fight (having it out)" and "They feel emotions and other things intensely." The Glorifying the Struggle scale assesses the extent to which a couple has gone through difficult times but perceives the marriage to be stronger because of these experiences. Their marriage is the center of their lives, and they are proud of the struggles they have gone through. Example items include "The couple express that marriage is a struggle, but it is worth it" and "The couple is proud of the hardships they have been through."

The coding system also evaluates the degree to which couples' gender roles within the marriage are stereotypical and the degree to which their beliefs and values are traditional (Gender Stereotypy Scale; one score per couple). Items used to index this dimension include "The wife is the emotional gatekeeper in the marriage" and "The husband is invested in being the provider, main wage earner."

Intercoder reliability was calculated via intraclass coefficients. A perceived marital bond measure was derived from the Oral History Interview (described in detail in the Results section). Its intercoder reliability is presented here as a matter of consistency with the other data on reliability. The intraclass correlation for the Oral History Interview perceived marital bond measure was .75. The intraclass correlations for the other Oral History Interview subscales were as follows: Husband's Fondness/Affection, .76; Wife's Fondness/Affection, .76; Husband's We-ness, .71; Wife's We-ness, .76; Husband's Expansiveness, .47; Wife's Expansiveness, .66; Husband's Negativity, .81; Wife's Negativity, .71; Husband's Disappointment and Disillusionment, .79; Wife's Disappointment and Disillusionment, .72; Chaos, .68; Volatility, .56; Glorifying the Struggle, .37; and Gender Stereotypy, .35.

Marital satisfaction.

The MAT ([Krokoff, 1984b](#); Locke & Wallace, 1959) was administered to the wives during the initial telephone interview, and the paper-and pencil version of the scale was administered to both the husbands and wives a week or two before the laboratory session. The scores on the paper-and-pencil version were used in the analyses described in this article. The MAT assesses marital satisfaction and is frequently used in marital research because of its strength in reliably and validly distinguishing between happily and unhappily married couples. The telephone version was used to interview wives about their marital satisfaction during the sample selection phase of the study. As described earlier, the sample was selected so that there was an even distribution of marital satisfaction among the wives' scores on the telephone

version of the MAT. This version includes the same items used in the paper-and-pencil version ([Krokoff, 1984b](#)). Higher scores on the MAT represent greater marital satisfaction.

Social desirability.

The Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1960) was used to test the discriminant validity of the Oral History Interview coding system. The Marlowe-Crowne Social Desirability Scale is a well-established instrument used to measure the need of individuals to engage in culturally acceptable and approved behaviors. It was used as a construct that could offer a competing explanation for couples' scores on the different subscales of the Oral History Interview coding system.

Procedure

Newlywed couples ($N = 130$) were recruited for the study over the course of 3 years. During each of the 3 years, approximately 35 to 45 couples participated in marital interaction laboratory procedures. These marital interaction procedures are not a part of the analyses described in the present article; however, a report of the procedures can be found in [Gottman et al. \(1998\)](#) . As part of a larger packet of questionnaires, couples were given a paper-and-pencil version of the MAT and the Marlowe-Crowne Social Desirability Scale to fill out and bring with them to their first marital interaction session in the laboratory. The MAT questionnaires the couples filled out and brought to the first laboratory session were used in the analyses described in this study.

Oral History Interview.

As a result of the design of the original study, The Oral History Interview was conducted in one of two types of settings. Of the 95 couples included in the analyses described in this article, 40 were selected to be studied in more detail. These 40 couples were asked to spend 24 hr in our apartment laboratory while we videotaped their waking behaviors, indexed their heart rate, and took endocrine and immunological measures. For logistic and financial reasons, we did not include all couples in these procedures. The couples who participated in the apartment laboratory procedures were given the Oral History Interview in the early evening of their stay in the lab. These interviews in the apartment laboratory were videotaped. The remaining 55 couples included in the analyses described here were interviewed in their home, and the interviews were recorded via audiotape.

A multivariate analysis of variance (MANOVA) was run on the Oral History Interview variables to determine whether there were significant differences between the couples interviewed at home and those interviewed in the apartment laboratory. We wanted to determine whether the setting of the interview influenced the coding. Eleven of the subscales were combined into one variable (perceived marital bond) because of concerns about multicollinearity and redundancy of the dependent variables. The perceived marital bond variable was based on a principal-components analysis described later. The other three Oral History Interview variables included in the MANOVA were glorifying the struggle, volatility, and gender stereotypy. Using Wilks's lambda as the criterion, we found no significant differences between the couples interviewed in the apartment laboratory and those interviewed in their homes on perceived marital bond scores, $F(4, 90) = 2.01, ns$.

Longitudinal follow-up.

Couples were recontacted by telephone and mail each year between 1993 and 1998. Each spouse was interviewed separately by telephone, and spouses described their marital status. Divorce rates were based on husbands' and wives' self-reports of actual divorce.

Results

Data analyses addressed four objectives. First, principal-components analysis was used to establish the internal construct validity of the Oral History Interview. Second, correlational data analyses were used to examine the discriminant construct validity of the scale. Third, discriminant function analyses were used to examine the predictive validity of the Oral History Interview at two time points and to compare its predictive strength as an instrument with that of the MAT. Finally, an analysis of variance was used to explore the differences in Oral History Interview scores among three groups of couples: those divorcing by the 1995 time point, those divorcing after the 1995 time point but before the 1998 time point, and those remaining married.

Internal Construct Validity Criteria

A principal-components analysis was conducted to determine the latent variables present in the newlywed couples' oral history and to replicate the scaling steps taken by [Buehlman et al. \(1992\)](#). The couple was used as the unit of analysis. 1 The first component in the analysis represented 53% of the total variance (see [Table 1](#)). Only those subscales that had a loading of .71 (absolute value) or higher were used. [Comrey and Lee \(1992\)](#) suggested that variable loadings of .71 or greater are excellent indicators of the underlying component. The subscales meeting this criterion were Husband's Fondness/Affection, Wife's Fondness/Affection, Husband's Negativity, Wife's Negativity, Husband's We-ness, Wife's We-ness, Husband's Expansiveness, Wife's Expansiveness, Husband's Disappointment and Disillusionment, Wife's Disappointment and Disillusionment, and Chaos. In the previous study of married couples with children, Glorifying the Struggle was among the subscales that had a loading above .7; however, it had a lower loading in the analysis of the newlywed data set (.53). Unlike our previous study, three subscales measuring the wife's role in the marriage (Fondness/Affection, Negativity, and Expansiveness) had loadings greater than .7. The variables for this principal component represent the perceived marital bond present in the relationship. The correlation matrix for this component's subscales is presented in [Table 2](#). The other two principal components resulting from this analysis were volatility, with only the Volatility subscale loading above .7 (volatility loaded at .84), and gender stereotypy, on which only the Gender Stereotypy subscale loaded above .7 (gender stereotypy loaded at .90).

Discriminant Construct Validation Marital satisfaction.

Marital satisfaction was theorized to be a construct related to but not identical to marital bonding. To examine this hypothesis, we calculated correlations between the Oral History Interview variables and marital satisfaction scores from Time 1 (see [Table 3](#)). 2 There were moderate but significant relationships between marital satisfaction and several of the perceived marital bond variables of the Oral History Interview as well as the factor score for perceived marital bond (the regression approach was used to calculate the perceived marital bond factor score, as recommended by [Tabachnick & Fidell, 1996](#)). These moderate correlations between marital satisfaction and perceived marital bond suggest that the two constructs are related but distinguishable from one another.

Social desirability.

Social desirability was considered a construct that would have no relationship to marital bonding theoretically but could offer a competing explanation for the couples' behavior during the interview. As a means of testing this assumption, the individual marital bond variables loading greater than .7 and the marital bond factor score were correlated with the spouses' scores on the Marlowe-Crowne Social Desirability Scale. As can be seen in [Table 4](#), the relationships between these variables were

nonsignificant, and the majority of them had near-zero correlations. Chaos (-.11), Husband's Expansiveness (-.16), and Husband's Disappointment and Disillusionment (-.16) scores had the strongest correlations, but even they were small and nonsignificant.

Predictive Validity Criterion

Two discriminant function analyses were conducted to determine whether scores on the Oral History Interview could correctly classify couples as stable or divorced as of 1995 (Time 2) and 1998 (Time 3). Seven of the 95 couples had divorced by 1995. The discriminant function analysis of 1995 marital status included 6 of the 11 codes of the marital bonding factor loading higher than .70. Only 6 of the codes were used because discriminant analysis requires that there be fewer predictor variables than the sample size of the smallest group ([Tabachnick & Fidell, 1996](#)). The predictor variables were chosen on the basis of which were most effective in predicting membership in the divorced group ([Tabachnick & Fidell, 1996](#)). The discriminant analysis of the 1995 marital status data correctly categorized 87% of the couples as married or divorced (see [Table 5](#)). Of the 7 couples who had divorced, 6 (86%) were correctly categorized. Only 11 of the 88 couples still married in 1995 were incorrectly classified. The canonical correlation for this analysis was .42, $\chi^2(6, N = 95) = 17.35, p < .01$.

A second discriminant analysis was conducted with the 1998 marital status data to determine whether the Oral History Interview variables had similar strength in predicting marital stability over a longer period of time. At this time point, 16 couples had divorced, so we were able to use all of the variables loading above .7 on the perceived marital bond principal component as predictor variables. When the 11 codes of the marital bonding factor that loaded higher than .70 were used, the discriminant analysis was able to correctly categorize 81% of the couples as married or divorced (see [Table 6](#)). Of the 16 couples who had divorced, 13 (81%) were correctly classified. Only 15 of the 79 couples still married in 1998 were incorrectly classified. The canonical correlation for this analysis was .53, $\chi^2(11, N = 95) = 28.23, p < .005$. The standardized canonical discriminant functions for these analyses are also provided in [Tables 5 and 6](#).

Two discriminant function analyses using both the husbands' and wives' marital satisfaction scores (MAT paper-and-pencil version scores; [Locke & Wallace, 1959](#)) at Time 1 to predict marital status at Time 2 and Time 3 were conducted to compare the MAT's predictive strength with that of the Oral History Interview. The results of the discriminant function analysis using the Time 1 marital satisfaction scores to predict marital status at Time 2 are summarized in [Table 7](#) . Marital satisfaction variables were able to correctly classify 75% of the couples as married or divorced at Time 2. The results were statistically significant, but the MAT was not as successful as the Oral History Interview in correctly categorizing the divorced couples (4 of the 7 divorced couples were incorrectly categorized), nor was it as accurate in predicting which couples would remain married (77% correct for the marital satisfaction measures, as compared with 88% for the Oral History Interview). The canonical correlation was .28, $\chi^2(2, N = 92) = 7.08, p > .05$.

The discriminant analysis using Time 1 marital satisfaction (MAT) scores to predict the 1998 (Time 3) marital status of the newlywed couples showed that the MAT did a poor job of predicting group membership (60% accuracy). Only 7 of the 16 divorced couples were correctly categorized (44%). The MAT was also a poor index for predicting those couples who would still be married in 1998 (63% accuracy). The canonical correlation for this analysis was .11, $\chi^2(2, N = 92) = 1.10, ns$. These results are summarized in [Table 8](#) .

Comparisons of Perceived Marital Bond Scores

A one-way analysis of variance was used to compare the perceived marital bond factor scores for three groups of couples: couples still married in 1998, couples who had divorced by 1995, and couples who divorced after 1995 but before 1998. The perceived marital bond factor score was calculated via the principal-components analysis previously described. Couples were divided into these three groups because previous research ([Gottman & Levenson, in press](#)) showed that couples divorcing early have very negative emotional communication patterns, whereas couples who divorce later display an absence of positive emotion in their communication (but not significantly high levels of negative emotion). The present analysis allowed us to determine whether there was a similar difference in global marital perceptions between couples who remained married and couples divorcing after different lengths of marriage. The perceived marital bond factor score was used because of the high correlation between the individual variables making up this factor (Tabachnick & Fidell, 1996).

There was a significant linear trend in perceived marital bond among the three types of couples, $F(2, 92) = 7.40, p < .001$, with those couples still married in 1998 having the highest perceived marital bond scores and those couples who had divorced by 1995 having the lowest scores. A Scheffé test was used to compare the differences among the three sets of couples (Keppel, 1982). The couples divorcing by 1995 had a significantly lower marital bond score ($M = -1.2, SD = 0.98$) than the couples still married in 1998 ($M = 0.16, SD = 0.94; p < .05$); however there were no significant differences between the couples divorcing after 1995 ($M = -0.33, SD = 0.94$) and the other two groups of couples.

Discussion

The perceptions newlywed spouses have about their partner and their marriage predict the stability of the marriage with 87% accuracy at the 4—6-year point and do so with 81% accuracy at the 7—9-year point. These results lend support to the theory that perceptual biases, especially the ways in which spouses selectively attend to positive or negative aspects of the marriage and their partner, shape the future marital path.

One of the questions raised by the present study is the following: What does the perceived marital bond construct measure? We propose that perceived marital bond is a measure of spouses' perceptual biases about each other and the marriage. It is a construct that taps into marital cognitions described by other investigators, such as sentiment override (Notarius et al., 1989 ; [Weiss, 1980](#)) and selective attention to spousal behavior ([Robinson & Price, 1980](#)). Although it is related to the construct of marital satisfaction, as one might expect marital quality to be associated with perceptions about the relationship, it is not identical to marital satisfaction (see Table 3). How, then, does it tap into the perceptual biases that the spouses hold?

The Oral History Interview coding system indexes a variety of behaviors of couples (e.g., how spouses talk about each other and how they interact with each other in the interview) and what they selectively attend to in the past history of the marriage, in the present state of the marriage, and in their partner's qualities and behaviors. All of these elements making up the perceived marital bond seem to be interconnected by the positive—negative valence of spouses' perceptual bias about the marriage. The ways in which they interact, talk about each other, and describe the history of the marriage are strongly interrelated. This supports Fincham et al.'s (1990) thesis that how spouses remember the past corresponds with how they behave toward one another in the present. As suggested by [Baucom and his colleagues \(1989\)](#), individuals pay selective attention to aspects of a situation that fit with a cognitive schema they hold (i.e., the history of the marriage). These subjective and biased perceptions of events are problematic because people do not realize they are operating with only a subset of information about those events. Baucom et al. suggested that it is this process that results in present and future behavior being influenced by selective attention and perceptual biases. The Oral History Interview Perceived

Marital Bond scale appears to capture this perceptual bias of couples. Its strength in predicting marital stability comes from the links marital cognition researchers have proposed between perceptual biases and future behavior within the marriage.

The predictive strength of the Oral History Interview may also come from indexing both what spouses report about the marriage and how they interact with each other in the interview. This may be the advantage of using a "narrative" interview in which the spouses tell their story rather than using either a questionnaire or interview with explicit questions about the marriage. Veroff, Sutherland, Chadiha, and Ortega (1993) suggested that direct, specific questioning may reflect a person's social self-presentation in contrast to narratives, which are less inhibiting and more consistent with how people organize their experiences. Veroff and his associates also suggested that the "meaning" that spouses give to their relationship in the telling of their story may be "diagnostic" of how they will function as a couple. Our research with the Oral History Interview supports this perspective. The interview allows observation of how the couple operates as a unit and provides insights about how their perceptions and behaviors are indicative of what will take place in the marriage over time.

There is other evidence that global marital perceptions shape spousal behavior. [Notarius and his associates \(1989\)](#) found that sentiment override, a perceptual filter spouses bring to evaluating the behavior of their partners, was associated with how wives judged the neutral and negative behaviors of their husbands. [Notarius et al. \(1989\)](#) found that distressed wives more negatively evaluated their husbands' neutral and negative behavior than nondistressed wives (as compared with objective ratings of the husbands' behaviors by behavioral coders). In our laboratory, [Hawkins, Carrère, and Gottman \(1999\)](#) found that the newlywed wives from the present study who scored low on the Oral History Interview perceived marital bond factor rated their husbands' anger, humor, and affection more negatively than did wives scoring high on the factor. [Shapiro, Gottman, and Carrère \(2000\)](#) found that newlywed wives (from the same sample described in this article), who made the transition to parenthood with either stable or increasing rates of marital satisfaction had higher scores on Oral History Interview variables associated with perceived marital bond. Shapiro et al. theorized that the perceptions wives had about their marriages and spouses helped buffer them against the decline in marital satisfaction more typically observed during the transition to parenthood. The results of these analyses suggest that spouses, particularly wives, are more likely to evaluate their partner's behavior on the basis of global marital perceptions. These perceptual biases may help in times of demanding marital transitions (e.g., becoming parents) and influence day-to-day interactions. Our findings lend support to theories of causal relationships between cognitions and behavioral outcomes.

This study also replicates the findings of [Buehlman et al.'s \(1992\)](#) analysis of the Oral History Interview, this time with a sample of newlywed couples; as such, the results extend the external validity of the original study's outcomes. Furthermore, the present study clarified and strengthened the construct validity of the instrument by examining its internal structure and its ability to be discriminated from competing explanations of its construct (social desirability) and overlapping constructs (marital satisfaction). The analyses in the present study indicate that the predictive validity of the instrument appears to taper off over time. However, the perceived marital bond scale of the Oral History Interview still provides more accuracy than self-reports of marital satisfaction in predicting the future course of marriage.

[Buehlman et al. \(1992\)](#) were able to predict marital stability and divorce in a sample of married couples with young children. Our goal was to determine whether their results could be generalized to couples at a different stage of the marital life cycle. The Oral History Interview was successful in identifying those newlywed couples who would still be married or would be divorced in 1995 (4 to 6 years after their marriage began). This population of couples had a comparatively short history of married experience. Our concern was that the length of a couple's relationship might influence the Oral History Interview

measures of perceived marital bond (e.g., "we-ness," expansiveness, and chaos). The ability of the interview to capture those elements of the perceived marital bond in newlywed marriages that predict stability and divorce is provocative. It is also worth noting that the discriminant function analysis correctly classified six of the seven marriages that ended in divorce by Time 2 in this sample.

Overall, the results of this study strengthen our confidence in the construct validity of the Oral History Interview. As before, we found evidence in the Oral History Interview for the principal component of perceived marital bond in couples who were either low or high in expressed fondness, "we-ness," expansiveness, negativity, and disappointment in the marriage as well as in the degree to which couples described their marriages as chaotic. In our newlywed sample, the Oral History Interview dimension of whether couples glorify the struggle had a loading value too low to justify inclusion into this principal component. Given the relatively short experience these couples had in their marriage, it is understandable that a variable measuring the extent to which they had struggled through hard times would not be as useful as other variables in predicting the health of their marriage. In the present study, both wives' and husbands' scores on the subscales scored individually for each spouse (Fondness/Affection, We-ness, Expansiveness, Negativity, and Disappointment and Disillusionment) had sufficiently high loading values to include in the perceived marital bond principal component. This is in contrast with the findings of Buehlman et al. (1992) that only couple scores and husband scores on the subscales had loading values high enough to include in the principal component.

The ability of the Oral History Interview coding system to predict the stability of the relationships did drop over time (from 87% in Years 4—6 of marriage to 81% by Years 7—9 of marriage). The analysis of variance comparing those couples still married in 1998, those couples divorced by 1995, and those couples married in 1995 but divorced in 1998 was a post hoc examination of the differences among the three groups on the perceived marital bond factor score. There was a significant linear trend in marital bond scores, with those couples still married in 1998 having the highest perceived scores and those couples who had divorced by 1995 having the lowest scores. Those couples who had divorced by 1995 also had a significantly lower perceived marital bond score than the couples who remained married in 1998. The linear trend in the perceived marital bond scores for these three groups of couples would imply, as suggested by Gottman (1993, 1994), that marital instability is created when a couple's perceptions about the marriage and about each other exceed a particular negative threshold (the couples who had divorced by 1995). However, it is less clear what factors led to marital dissolution in the case of couples who divorced after 1995 but before 1998. Their perceived marital bond scores were lower than those of the couples still married in 1998, but they were not significantly lower. One possibility is the tendency of global marital perceptions to change or remain constant over time. Future research could examine the extent to which marital perceptions are stable or fluid over time.

The present study has limitations. The couples who did not complete all of the components of the study (Oral History Interview, Time 1 MAT, and longitudinal telephone interviews on marital stability) differed from the couples completing these components, and these differences may have made the marriages of couples with incomplete data more unstable. There were no significant differences at Time 1 between the two groups on marital satisfaction, nor were there differences in income. The couples with complete data were more likely to have lived together before marrying, a factor usually associated with greater risk for divorce. The couples with complete data sets were significantly older (2 years on average) than the other couples. Younger marriages are frequently associated with greater rates of marital distress (Belsky & Rovine, 1990; Kurdek, 1991; Raschke, 1987). Perceived marital bond may not have the same predictive validity with the kinds of couples who did not complete the data.

Another limitation of the data is that we did not look at change in marital satisfaction over time as an outcome. Karney and Bradbury (1995) highlighted the importance of considering both marital quality and stability as outcome measures in longitudinal studies of marriage. Although we were able to

complete telephone assessments of marital stability with 95 of the study couples, we had a lower success rate with marital satisfaction measures. We decided to focus solely on marital stability rather than further reduce the sample size in the analyses.

One thought-provoking outcome of the study is related to those couples who were incorrectly categorized as divorced or married by the discriminant analysis. The discriminant analysis involving the perceived marital bond variables incorrectly classified 10 of the 83 couples still married at Time 2 as divorced. This analysis suggests that the low perceived marital bond in these 10 marriages could lead to marital dissolution and that these marriages are at risk. However, 7 of these 10 couples were still married in 1998. It would be interesting to know how the marital perceptions of these 7 couples in the high-risk group changed or remained stable in the years after the Oral History Interview was conducted. As pointed out earlier, an important research direction would be to determine how fluid or stable marital perceptual biases are over time.

Our findings should be interpreted with some caution because of the low number of divorces that occurred over the course of the study. This is one of the major challenges faced by longitudinal studies of marital stability ([Gottman, 1994](#)). This low base rate may be due to the length of time it takes an unhappy marriage to progress to divorce. The problem may also be due to sampling issues; that is, those distressed couples whose marriages are more likely to end in divorce may be less likely to participate in a study of marriage. ³

Conclusions and Future Research Directions

The present study offers support for causal linkages between marital cognitions and marital outcomes, particularly the impact of perceptual biases and selective attention on the stability of marriage. The research presented here, in combination with research conducted by other investigators on sentiment override (Notarius et al., 1989 ; Weiss, 1980) and spouses' selective attention to each other's behavior ([Robinson & Price, 1980](#)), provides further clues as to how perceptual biases may influence the course of marriage. Specifically, they may influence marital interactions in the present and subsequently result in trajectories toward marital stability or dissolution. Future research could explore the causal pathways between selective attention resulting from perceptual biases about past and present events and future marital processes. For example, research in our laboratory suggests that Oral History Interview perceived marital bond scores may be linked to spouses' rating of each other's behaviors (e.g., during conflict interactions or during times of high duress resulting from demands from outside the marriage) and to subsequent changes in marital quality and marital stability. In addition, our research indicates that there is a drop in the predictive validity of the Oral History Interview perceived marital bond scale over time. It would be useful to know how stable or fluid perceptual biases are in marriage. It would also be helpful to know how these perceptual biases are formed and what processes result in changes in these biases. [Gottman \(1994\)](#) suggested that perceptions, behavior, and physiology are all interlinked in marital processes and that major negative changes in one of these three core triad indicators of marital health can lead to negative changes in the other indicators, resulting in a decline in the strength of the marriage. Research that manipulates these different indicators of marital health could more specifically delineate the relationships between perception, physiology, and behavior and subsequent marital outcomes.

Implications for Application and Public Policy

We have developed a model of research in our laboratory that moves from discerning the rules that underlie interpersonal relationships (through observation and measurement) to developing intervention research that tests those theoretical rules of behavior. It is a research process that we believe helps

investigators apply and test their behavioral research findings. Our research with the Oral History Interview is a case in point. The ability of the instrument to tap processes predictive of marital stability or dissolution makes it a powerful tool for identifying those couples on a trajectory toward divorce. Both the present study and the research by Buehlman and her associates pinpoint elements of a marital relationship that build and maintain the marital bond (e.g., fondness and admiration for one's partner and a sense of unity). Gottman recently developed a workshop for couples to help them strengthen their marriage, based in part on what the Oral History Interview reveals about the marital bond (Gottman, 1999). During the workshop, spouses build the marital bond by strengthening their friendship, developing a sense of unity, and creating a reservoir of positive regard for each other. We are currently conducting research in our laboratory to assess changes in behavior, physiology, and perceptions associated with couples' participation in this workshop. We think it is important for there to be a "marriage" between research on the principles of behavior and intervention research. Insights gained from empirical studies of behavior usually initiate ideas for interventions that are based on the results of such research. Results of intervention studies can generate both broader applications of the intervention (e.g., clinical training programs, community intervention projects, and legislative policy) and questions about behavior that require further clarification through research. We think such a marriage between basic behavioral research and intervention research helps move research out of the university and into the community.

References

- Baucom, D. H., Epstein, N., Sayers, S. & Sher, T. G. (1989). The role of cognitions in marital relationships: Definitional, methodological, and conceptual issues. *Journal of Consulting and Clinical Psychology, 57*, 31-38.
- Behrens, B. C. & Sanders, M. R. (1994). Prevention of marital distress: Current issues in programming and research. *Behavior Change, 11*, 82-93.
- Belsky, J. & Rovine, M. (1990). Patterns of marital change across the transition to parenthood: Pregnancy to three years postpartum. *Journal of Marriage and the Family, 52*, 5-20.
- Berkman, L. F. & Breslow, L. (1983). *Health and the ways of living: The Alameda County Study*. (New York: Oxford University Press)
- Berkman, L. F. & Syme, S. L. (1979). Social networks, host resistance, and mortality: A nine-year follow-up study of Alameda County residents. *American Journal of Epidemiology, 109*, 186-204.
- Bloom, B., Asher, S. & White, S. (1978). Marital disruption as a stressor: A review and analysis. *Psychological Bulletin, 85*, 867-894.
- Bradbury, T. N. & Fincham, F. D. (1987). Affect and cognition in close relationships: Toward an integrative model. *Cognition and Emotion, 1*, 59-87.
- Buehlman, K. T. & Gottman, J. M. (1996). The Oral History Coding System. (In J. Gottman (Ed.), *What predicts divorce? The measures* (pp. OHI1-OHI118). Hillsdale, NJ: Erlbaum.)
- Buehlman, K. T., Gottman, J. M. & Katz, L. F. (1992). How a couple views their past predicts their future: Predicting divorce from an oral history interview. *Journal of Family Psychology, 5*, 295-318.
- Burman, B. & Margolin, G. (1992). Analysis of the association between marital relationships and health problems. *Psychological Bulletin, 112*, 39-63.
- Cherlin, A. (1992). *Marriage, divorce, and remarriage*. (Cambridge, MA: Harvard University Press)
- City of Seattle Planning Commission. (1990). *Population changes in Seattle 1980—1990*. (Seattle, WA: Author)
- Comrey, A. L. & Lee, H. B. (1992). *A first course in factor analysis* ((2nd ed.). Hillsdale, NJ: Erlbaum)
- Crowne, D. P. & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology, 24*, 349-354.
- Epstein, N., Pretzer, J. L. & Fleming, B. (1987). The role of cognitive appraisal in self-reports of marital communication. *Behavior Therapy, 18*, 51-69.

- Fincham, F. D. & Bradbury, T. N. (1987). The impact of attribution in marriage: A longitudinal analysis. *Journal of Personality and Social Psychology*, *53*, 510-517.
- Fincham, F. D., Bradbury, T. N. & Scott, C. K. (1990). Cognition in marriage. (In F. D. Fincham & T. N. Bradbury (Eds.), *The psychology of marriage* (pp. 118—149). New York: Guilford Press.)
- Gottman, J. M. (1979). *Marital interaction: Experimental investigations*. (New York: Academic Press)
- Gottman, J. M. (1993). A theory of marital dissolution and stability. *Journal of Family Psychology*, *7*, 57-75.
- Gottman, J. M. (1994). *What predicts divorce?: The relationship between marital processes and marital outcomes*. (Hillsdale, NJ: Erlbaum)
- Gottman, J. M. (1999). *Couple's handbook: Marriage Survival Kit Couple's Workshop*. (Seattle, WA: Gottman Institute)
- Gottman, J. M., Coan, J., Carrère, S. & Swanson, C. (1998). Predicting marital happiness and stability from newlywed interactions. *Journal of Marriage and the Family*, *60*, 5-22.
- Gottman, J. M. & Levenson, R. W. The role of positive affect in long-term marital stability. *Journal of Marriage and the Family*, , (in press)
- Hawkins, M., Carrère, S. & Gottman, J. (1999). *Marital interaction as observed objectively and perceived subjectively: A study of sentiment override*. (Manuscript submitted for publication)
- Hawley, D. R. & Olson, D. H. (1995). Enriching newlyweds: An evaluation of three enrichment programs. *American Journal of Family Therapy*, *23*, 129-147.
- Holtzworth-Munroe, A. & Jacobson, N. S. (1985). Causal attributions of married couples: When do they search for causes? What do they conclude when they do? *Journal of Personality and Social Psychology*, *48*, 1398-1412.
- Karney, B. R. & Bradbury, T. N. (1995). The longitudinal course of marital quality and stability: A review of theory, method, and research. *Psychological Bulletin*, *118*, 3-34.
- Keppel, G. (1982). *Design and analysis: A researcher's handbook* ((2nd ed.). Englewood Cliffs, NJ: Prentice Hall)
- Krokoff, L. J. (1984a). *The anatomy of blue-collar marriages*. (Unpublished doctoral dissertation, University of Illinois at Urbana-Champaign.)
- Krokoff, L. J. (1984b). *A telephone version of the Locke-Wallace test of marital adjustment*. (Unpublished manuscript, University of Illinois at Urbana-Champaign)
- Kurdek, L. A. (1991). Predictors of increases in marital distress in newlywed couples: A 3-year prospective longitudinal study. *Developmental Psychology*, *27*, 627-636.
- Kyle, S. O. & Falbo, T. (1985). Relationship between marital stress and attributional preferences for own and spouse behavior. *Journal of Social and Clinical Psychology*, *3*, 339-351.
- Locke, H. J. & Wallace, K. M. (1959). Short marital adjustment and prediction tests: Their reliability and validity. *Marriage and Family Living*, *21*, 251-255.
- Markman, H. J. (1981). Prediction of marital distress: A five-year follow-up. *Journal of Consulting and Clinical Psychology*, *49*, 760-762.
- Markman, H. J., Floyd, F. J., Stanley, S. M. & Jamieson, K. (1984). A cognitive-behavioral program for the prevention of marital and family distress: Issues in program development and delivery. (In K. Hahlweg & N. Jacobson (Eds.), *Marital interaction* (pp. 396—428). New York: Guilford Press.)
- Markman, H. J., Floyd, F. J., Stanley, S. M. & Storaasli, R. D. (1988). Prevention of marital distress: A longitudinal investigation. *Journal of Consulting and Clinical Psychology*, *56*, 210-217.
- Martin, T. C. & Bumpass, L. L. (1989). Recent trends in marital disruption. *Demography*, *26*, 37-51.
- National Center for Health Statistics. (1991). *Advance report of final marriage statistics, 1988* ((Monthly Vital Statistics Report 39). Hyattsville, MD: Public Health Service.)
- Noller, P. & Feeney, J. A. (1998). Communication in early marriage: Response to conflict, nonverbal accuracy, and conversational patterns. (In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction* (pp. 11—43). New York: Cambridge University Press.)
- Notarius, C. I., Benson, P. R., Sloane, D., Vanzetti, N. A. & Hornyak, L. M. (1989). Exploring the interface between perception and behavior: An analysis of marital interaction in distressed and

- nondistressed couples. *Behavioral Assessment*, 11, 39-64.
- Raschke, H. J. (1987). Divorce. (In M. B. Sussman & S. K. Steinmetz (Eds.), *Handbook of marriage and the family* (pp. 597—624). New York: Plenum.)
- Robinson, E. A. & Price, M. G. (1980). Pleasurable behavior in marital interaction: An observational study. *Journal of Consulting and Clinical Psychology*, 48, 117-118.
- Shapiro, A. F., Gottman, J. M. & Carrère, S. (1999). The baby and the marriage: Identifying factors that buffer against decline in marital satisfaction after the baby arrives. *Journal of Family Psychology*, 14, 59-70.
- Tabachnick, B. G. & Fidell, L. S. (1996). *Using multivariate statistics* ((3rd ed.). New York: HarperCollins)
- Thompson, J. S. & Snyder, D. K. (1986). Attribution theory in intimate relationships: A methodological review. *American Journal of Family Therapy*, 14, 123-138.
- Veroff, J., Sutherland, L., Chadiha, L. & Ortega, R. (1993). Newlyweds tell their stories: A narrative method for assessing marital experiences. *Journal of Social and Personal Relationships*, 10, 437-457.
- Weiss, R. L. (1980). Strategic behavioral marital therapy: Toward a model for assessment and intervention. (In J. P. Vincent (Ed.), *Advances in family intervention, assessment and theory* (Vol. 1, pp. 229—271). Greenwich, CT: JAI Press.)

1

The couple was used as the unit of analysis because the Oral History Interview coding system measures spouses' global perceptions of the relationship and of each other. Because the couple was the unit of analysis, there was no theoretical problem with using variables from the interview indexing each spouse and the couple as a whole in the principal-components analysis (R. Abbott, personal communication, February 9, 1999).

2

This analysis involved a subsample of the original 90 couples ($n = 76$) because not all of the couples who completed the Oral History Interview completed the MAT and the Marlowe-Crowne Social Desirability Scale.

3

When trying to predict a rare event such as divorce, the goal is to correctly identify those marriages that will result in divorce because of the cost of being wrong. We would suggest that the most problematic event would be to predict that a couple would remain married when in fact they divorced. This kind of event would prevent the possibility of marital intervention. An analogy would be a false-negative test for cancer, in which the actual presence of cancer was missed by the diagnostic tool. In this study, it was most important to correctly predict who would divorce. It is far better to have a false-positive test for cancer, in which cancer was diagnosed but did not exist; likewise, it is better to have an instrument such the Oral History Interview that might identify some couples that appear to be on the road to divorce, when in fact their marriages will remain stable. There is less chance for harm in this case and every opportunity to make a marital intervention that might enhance the relationship.

Table 1. Principal-Components Analysis of Oral History Interview Variables: Perceived Marital Bond

Table 1
Principal-Components Analysis of Oral History Interview Variables: Perceived Marital Bond

Variable	Perceived marital bond loading
Husband fondness	.84
Husband expansiveness	.71
Husband "we-ness"	.83
Husband negativity	-.77
Husband disappointment	-.87
Wife fondness	.82
Wife expansiveness	.74
Wife "we-ness"	.81
Wife negativity	-.76
Wife disappointment	-.84
Chaos	-.77
Gender stereotypy	-.69
Volatility	.31
Glorification	.53

Table 2. Oral History Interview: Correlations for Marital Bond Variables

Table 3. Correlations of Oral History Interview Variables With Locke-Wallace Marital Adjustment Test Scores (n = 76)

Table 3
Correlations of Oral History Interview Variables With Locke-Wallace Marital Adjustment Test Scores (n = 76)

Oral History Interview variable	Marital satisfaction	
	Husband	Wife
Husband fondness	.42**	.41*
Husband expansiveness	.26*	.16
Husband "we-ness"	.40***	.38***
Husband negativity	-.44***	-.36***
Husband disappointment	-.55***	-.47***
Wife fondness	.30**	.37***
Wife expansiveness	.16	.26*
Wife "we-ness"	.39***	.42*
Wife negativity	-.37***	-.37***
Wife disappointment	-.38***	-.45***
Marital chaos	-.49***	-.51***
Marital bond (factor score)	.48***	.48***

*p < .05. **p < .01. ***p < .005.

Table 4. Correlations of Oral History Interview Variables With Marlowe-Crowne Social Desirability Scale Scores (n = 76)

Table 4
Correlations of Oral History Interview Variables With Marlowe-Crowne Social Desirability Scale Scores (n = 76)

Oral History Interview variable	Social desirability	
	Husband	Wife
Husband fondness	-.05	-.07
Husband expansiveness	-.16	-.05
Husband "we-ness"	.08	-.06
Husband negativity	-.02	-.00
Husband disappointment	-.16	-.10
Wife fondness	.05	-.04
Wife expansiveness	.02	-.03
Wife "we-ness"	.09	-.06
Wife negativity	.04	-.01
Wife disappointment	-.07	-.02
Marital chaos	-.11	.08
Marital bond (factor score)	.05	-.07

Table 5. Discriminant Function Analysis Predicting Marital Stability and Divorce in 1995 From the Oral

History Interview

Table 5
Discriminant Function Analysis Predicting Marital Stability and Divorce in 1995 From the Oral History Interview

Actual group	No. of cases	Predicted group membership ^a			
		Married		Divorced	
		n	%	n	%
Married	88	77	88	11	13
Divorced	7	1	14	6	86
Coefficient ^b					
Husband expansiveness		-0.17*			
Husband "we-ness"		0.33*			
Husband negativity		0.09*			
Husband disappointment		1.02****			
Wife negativity		0.37*			
Marital chaos		0.34***			

^aPercentage of cases correctly classified: 87.4%. ^bStandardized canonical discriminant function.
*p < .05. ***p < .005. ****p < .0005.

Table 6. Discriminant Function Analysis Predicting Marital Stability and Divorce in 1998 From the Oral History Interview

Table 6
Discriminant Function Analysis Predicting Marital Stability and Divorce in 1998 From the Oral History Interview

Actual group	No. of cases	Predicted group membership ^a			
		Married		Divorced	
		n	%	n	%
Married	79	64	81	15	19
Divorced	16	3	19	13	81
Coefficient ^b					
Husband fondness		0.03*			
Husband expansiveness		-0.75**			
Husband "we-ness"		1.78*			
Husband negativity		0.05*			
Husband disappointment		0.58****			
Wife fondness		0.73			
Wife expansiveness		0.08*			
Wife "we-ness"		-1.62***			
Wife negativity		-0.25*			
Wife disappointment		0.46****			
Marital chaos		0.34*			

^aPercentage of cases correctly classified: 81%. ^bStandardized canonical discriminant function.
*p < .05. **p < .01. ***p < .005. ****p < .0005.

Table 7. Discriminant Function Analysis Predicting Marital Stability and Divorce in 1995 From the Marital Adjustment Test (MAT)

Table 7
Discriminant Function Analysis Predicting Marital Stability and Divorce in 1995 From the Marital Adjustment Test (MAT)

Actual group	No. of cases ^b	Predicted group membership ^a			
		Married		Divorced	
		n	%	n	%
Married	85	66	78	19	22
Divorced	7	4	57	3	43
Coefficient ^c					
Husband marital satisfaction (MAT)		0.43*			
Wife marital satisfaction (MAT)		0.69*			

^aPercentage of cases correctly classified: 75%. ^bNumber of couples who had both husband and wife scores on the MAT at Time 1 (n = 92). ^cStandardized canonical discriminant function.
*p < .05.

Table 8. Discriminant Function Analysis Predicting Marital Stability and Divorce in 1998 From the Marital Adjustment Test (MAT)

Actual group	No. of cases ^b	Predicted group membership ^a			
		Married		Divorced	
		n	%	n	%
Married	76	48	63	28	37
Divorced	16	9	56	7	44
Coefficients ^c					
Husband marital satisfaction (MAT)			1.26		
Wife marital satisfaction (MAT)			-0.75		

^aPercentage of cases correctly classified: 59.8%.
^bNumber of couples who had both husband and wife
scores on the MAT at Time 1 (n = 92). ^cStandardized
canonical discriminant function.