Positive Illusions in Marital Relationships: A 13-Year Longitudinal Study

Paul J. E. Miller The Ontario HIV Treatment Network

Sylvia Niehuis Utah State University

Ted L. Huston

The University of Texas at Austin

This study examined the long-term consequences of idealization in marriage, using both daily diary and questionnaire data collected from a sample of 168 newlywed couples who participated in a 4-wave, 13-year longitudinal study of marriage. Idealization was operationalized as the tendency for people to perceive their partner as more agreeable than would be expected based on their reports of their partner's agreeable and disagreeable behaviors. Spouses who idealized one another were more in love with each other as newlyweds. Longitudinal analyses suggested that spouses were less likely to suffer declines in love when they idealized one another as newlyweds. Newlywed levels of idealization did not predict divorce.

Keywords: agreeableness; divorce; idealization; marriage; positive illusions

L he tendency of newlyweds to idealize each other has been regarded as a dangerous affliction (Waller, 1938). During courtship, Waller argued, partners are inclined to put their best foot forward and, at the same time, to assume that the good features of their relationship are rooted in each other's sterling interpersonal qualities. With marriage, however, spouses generally become less affectionate and conflict often begins to emerge as previously hidden differences surface. As a result, spouses' views of each other usually change and, in Waller's view, become less positive, setting them up for disillusionment. Research shows that changes such as those envisioned by Waller often do occur early in marriage (Huston & Houts, 1998; Kurdek, 1998), although not always or to the same degree. Understanding some couples' ability to maintain positive views of each other during the critical, early years of marriage is important because it is during the first 2 years of marriage that signs of disillusionment surface, putting marriages at risk (Huston, Caughlin, Houts, Smith, & George, 2001).

Does idealization early in marriage set spouses up for disappointment, as Waller (1938) suggests, or does it help protect people from becoming disillusioned? Although research on positive illusions shows that people who idealize their partner generally establish more satisfying relationships during courtship and early in marriage (e.g., Miller, Caughlin, & Huston, 2003; Murray, Holmes, & Griffin, 1996a, 1996b; Neff & Karney, 2005; Van Lange & Rusbult, 1995), it does not address whether spouses, who idealize their partner, are more in love as newlyweds or whether they are better able to sustain their feelings of love over time. The present study, therefore, seeks to extend previous research by examining whether spouses who idealize their partner (by perceiving them more favorably than would be expected based on their reports of their partner's behavior) are (a) more in love as newlyweds and (b) better able to maintain their feelings of love over time.

Authors' Note: The authors would like to thank Jay D. Schvaneveldt for his thoughtful comments on an earlier draft of this article. This research was supported by grants from the National Science Foundation (SBR-9311846) and the National Institute of Mental Health (MH-33938) to Ted Huston and by doctoral fellowships to Paul Miller from the University of Texas at Austin. Please address correspondence to Paul Miller, The Ontario HIV Treatment Network, 1300 Yonge Street, Suite 308, Toronto, Ontario, Canada, M4T 1X3; e-mail: pmiller@ohtn.on.ca.

PSPB, Vol. 32 No. 12, December 2006 1579-1594 DOI: 10.1177/0146167206292691

^{© 9006} by the Society for Demonslity and Socie

 $[\]ensuremath{\mathbb{C}}$ 2006 by the Society for Personality and Social Psychology, Inc.

Theory on Positive Illusions in Close Relationships

Theory on positive illusions suggests that people develop idealized images of their partner as a natural byproduct of relationship development (e.g., Huston, 1994; Murray et al., 1996a, 1996b). According to this theory, people in the early stages of courtship engage in impression management and also focus on what they perceive to be their partner's virtues (e.g., Holmes & Boon, 1990; Weiss, 1980). As a result, they have mostly positive interactions with and develop favorable impressions of their partner's personality (Huston & Houts, 1998). Both of these contribute to intense feelings of love for the partner, a feeling that they might have found the "right person" (e.g., Murray, 1999), and fuel their hopes of a bright future for the relationship.

As relationships develop, however, and interdependence increases, partners begin to engage less in impression management and evidence of the partner's shortcomings inevitably begins to emerge (Braiker & Kelley, 1979; Levinger, 1983). This lack of congruence between people's perceptions of their partner and the evidence of their partner's behavior is experienced as threatening because it has the potential to undermine people's belief that their partner truly is the "right person" (e.g., Murray, 1999).

Unfortunately, by the time evidence of the partner's shortcomings begins to accumulate, people may have already made several irretrievable investments in their relationship. Some researchers (e.g., Brickman, 1987) have argued that this is the point at which illusions may begin to unravel, leading to later disappointment and disillusionment. Others (e.g., Brehm, 1988), however, suggest that emerging evidence of imperfections may actually fuel the idealization process, thereby enhancing people's feelings of love for their partner.

According to this perspective, people who have already made considerable investments in a relationship are reluctant to begin again with someone new. As a result, they interpret evidence of shortcomings in a way that helps them maintain a positive image of their partner (e.g., Brehm, 1988; Brickman, 1987; Holmes & Rempel, 1989). To this end, people may use a variety of cognitive strategies, such as exaggerating the importance of their partner's strengths, downplaying the importance of their partner's weaknesses, finding evidence of strengths in their partner's weaknesses, and creating "yes, but . . ." refutations that link shortcomings in their partner to greater virtues (Murray & Holmes, 1993, 1994).

Research on Positive Illusions in Close Relationships

To date, research linking positive illusions to relationship quality and stability has used two approaches to assess idealization. Most frequently, people's perceptions of their partner have been compared with their perceptions of the typical, or median, partner. In studies of this type, illusions are defined as occurring when the majority of people rate their partner's qualities more favorably than the qualities of the typical or median partner. This definition of illusion is based on the idea that it is logically impossible for the majority of partners to be better than the typical, or median, partner for a given quality or set of qualities. Studies using this approach (e.g., Buunk & Van Yperen, 1991; Endo, Heine, & Lehman, 2004; Martz et al., 1998) have shown that the majority of people rate their partner more favorably than the median partner and that they are more likely to have satisfying relationships.

To a lesser degree, research also has assessed idealization by comparing people's self-perceptions with their partner's perceptions of them. In studies of this type, illusions are defined as occurring when a person's partner rates the person's qualities more favorably than the person does himself or herself. This definition is based on research indicating that ratings of self tend to be positively biased (e.g., Alicke, 1985; Brown, 1986; Taylor & Brown, 1988); that is, people rate their own qualities more favorably than the qualities of the typical person. Because selfratings are positively biased to begin with, people's perceptions of their own qualities represent a conservative standard against which to evaluate a partner's perception of these qualities for signs of a positive bias.

Studies based on this second approach (e.g., Murray et al., 1996a, 1996b; Murray, Holmes, Dolderman, & Griffin, 2000) have shown that people's ratings of their partner's qualities tend to be more favorable than the partner's ratings of their own qualities in both dating and marital relationships. Moreover, this tendency is associated with higher levels of concurrent relationship satisfaction in dating and married couples (Murray et al., 1996a) as well as higher levels of prospective relationship satisfaction and lower rates of relationship dissolution in dating couples (Murray et al., 1996b).

Previous operationalizations of positive illusions do not distinguish between two processes consistent with theory that might underlie them. On one hand, when people perceive their partner more favorably than the partner views himself or herself (or than other people view the partner), this could reflect a propensity of the partner to put his or her best foot forward in the relationship (i.e., positive illusion as a behavioral process). In this case, the partner is behaving more favorably than would be expected based on their self-description and the person is forming an impression of the partner that is consistent with this behavior. On the other hand, people may have the propensity to put a more positive spin on their partner's behavior or qualities than is merited given how the partner has behaved in the context of the relationship (i.e., positive illusion as a cognitive process). Previous definitions and operationalizations of positive illusions do not distinguish between positive illusions as a cognitive process, in which people interpret their partner's behavior in a charitable manner, and behavioral processes, in which people form an overly positive image of their partner because the partner behaves more positively in the relationship than in other settings with other people (Miller et al., 2003). One way to separate these two processes may be to use people's perceptions of their partner's behavior as a standard against which to assess their perceptions of their partner's personality for signs of an interpretive bias.

So far, research has focused primarily on the connections between positive illusions and relationship satisfaction. Theory on positive illusions (e.g., Murray & Holmes, 1993, 1994; Waller, 1938) suggests, however, that other connections also may exist, such as an association between positive illusions and love. According to theory, people form idealized images of their partner to preserve the intense feelings of closeness, belonging, and attachment that they felt during the early part of courtship. Thus, there should be a particularly close link between positive illusions and marital love.

Also, most research on illusions in married couples has been cross-sectional and, thus, not been able to address the possibility that there may be critical periods in the development of positive illusions. Although these studies (e.g., Murray et al., 1996a) have shown that people are happier at different points early in marriage when they idealize their partner, they could not rule out the possibility that dissatisfied spouses with low levels of illusions actually had high levels of illusions as newlyweds. According to theory (e.g., Waller, 1938), the years that immediately follow the transition to marriage are a time when the benefits of positive illusions would be most likely to dissipate.

Finally, previous research has not examined the longterm consequences of positive illusions in close relationships. To our knowledge, only two studies have used longitudinal data to assess the role of illusions in marriage. In the first study, Rusbult, Van Lange, Wildschut, Yovetich, and Verette (2000) found that illusions were positively associated with relationship quality and stability during a 20-month period during the first 3 years of marriage. These researchers did not, however, assess the role of illusions past the early years of marriage. In the second study, Miller et al. (2003) found that illusions were positively related to satisfaction during the early and middle years of marriage. However, Miller and his colleagues' study was designed to trace the psychological roots of idealization and to demonstrate that effects formerly attributed solely to positive illusions as a cognitive process reflect, at least in part, people's tendency to bring out the best in their partner's behavior (rather than their tendency to interpret this behavior in a favorable light). Thus, this article was unable to fully assess the long-term consequences of positive illusions in close relationships.

Overview of the Current Investigation

The current investigation is designed to fill in gaps in the literature on positive illusions by (a) operationalizing positive illusions as people's tendency to perceive their partner more favorably than would be expected based on their reports of their partner's behavior in the relationship; (b) assessing the previously unexamined link between positive illusions and newlywed love; (c) examining how positive illusions during the theoretically critical newlywed years are associated with stability and change in marital love; and (d) examining the long-term consequences of positive illusions across the first 13 years of marriage.

The model depicted in Figure 1 operationalizes positive illusions as people's tendency to perceive their partner as more agreeable than would be expected based on their perceptions of their partner's agreeable behavior, their perceptions of their partner's disagreeable behavior, and the interaction between the two. We chose to use agreeableness in this study because agreeableness is the one dimension most concerned with individual differences in people's motivation to maintain positive interpersonal relations (Graziano & Tobin, 2002). Agreeableness appears to predispose individuals in close relationships to perceive themselves and their partner in a more positive light and to generate positive attributions to the partner's negative behavior (Graziano, Jensen-Campbell, & Hair, 1996). As a result, agreeable persons respond to conflict with less negative affect and in a more constructive fashion than do less agreeable individuals (Graziano et al., 1996; Jensen-Campbell & Graziano, 2001). They also tend to engage less in actions upsetting their spouse (such as unfaithfulness, inconsiderateness, and self-centeredness; Buss, 1991), elicit less conflict from their partner (Kelley & Stahelski, 1970), and are perceived as more supportive (cf. Branje, Van Lieshout, & Van Aken, 2005) than are less agreeable individuals. Not surprisingly, people's agreeableness has been linked to their own (e.g., Botwin, Buss, & Shackelford, 1997; Buss, 1991) and their spouse's (e.g., Bouchard, Lussier, & Sabourin, 1999) global evaluation of their marriage, and this link is partially mediated by the quality of spouses' interactions (Donnellan, Conger, & Bryant, 2004).

The rectangles in Figure 1 represent observed variables and ovals represent latent constructs that must be inferred on the basis of the observed variables. The



Figure 1 Positive illusion in marriage.

variables labeled "approve" through "bored" on the left side in Figure 1 reflect a variety of agreeable and disagreeable behaviors that spouses exhibit toward one another in their day-to-day life as a couple. The variables labeled "agreeable behavior" and "disagreeable behavior" reflect two distinct factors that are thought to underlie these behaviors. These two factors assess the extent to which partners are good-natured rather than irritable in their day-to-day interactions with one another and represent the standard against which people's perceptions of their partner are assessed for signs of interpretative bias.

The model in Figure 1 is based largely on the assumption that the indicators of agreeable behavior and disagreeable behavior are effect indicators rather than cause indicators. According to Bollen and Lennox (1991), effect indicators of a construct are those that can be seen as sharing variance because they reflect an underlying dimension. In this type of measurement model, the indicators are seen as effects of a latent variable. Thus, one depicts the measurement model by drawing arrows from the latent variables to their indicators, as shown in Figure 1. Such a model contrasts with a causal indicators measurement model, in which arrows are drawn from the indicators to the latent variables to reflect the idea that the latent variable is a weighted sum of its parts.

To the extent that indicators for agreeable behavior and disagreeable behavior are effect indicators as opposed to cause indicators, it should be possible to adequately capture the partner's reality on these dimensions using a representative sample of indicators. This contrasts with a situation where the indicators are cause indicators, in which case failure to assess every possible manifestation of agreeable behavior and disagreeable behavior could lead us to inaccurately measure these constructs, thereby compromising our measure of idealization. Because the assumption of effect indicators is crucial to the logic of the model in Figure 1, its plausibility will be assessed in the results. Specifically, tests will be carried out to determine whether the indicators of agreeable behavior and disagreeable behavior predict people's perceptions of their partner's agreeableness once what the indicators share in common has been taken into account. If the indicators of agreeable behavior and disagreeable behavior continue to predict people's perceptions of their partner's agreeableness, then the effect indicators assumption will be undermined.

Agreeable behavior and disagreeable behavior are treated as distinct factors in Figure 1 because research has shown that the positive and negative features of romantic relationships form largely orthogonal dimensions (e.g., Huston & Vangelisti, 1991) or "two distinct functional systems" (Gable & Reis, 2001, p. 170). Although the evidence suggests that agreeable behavior and disagreeable behavior are uncorrelated, this assumption will be tested in the model. Thus, a double-headed arrow connects the two factors.

The variable labeled Agreeable × Disagreeable Interaction in Figure 1 reflects the interaction between agreeable behavior and disagreeable behavior. As indicated by the "saw-toothed" arrows in the figure, the Agreeable × Disagreeable Interaction is a linear combination of its components. Thus, there is no error term for this variable. Although not shown in Figure 1, the Agreeable × Disagreeable Interaction has several indicators that are formed by multiplying the indicators for agreeable behavior and disagreeable behavior. Specifically, the scaling indicator for the interaction term was formed by multiplying the scaling indicator for agreeable behavior (i.e., approve) and the scaling indicator for disagreeable behavior (i.e., anger). Additional indicators for the interaction term were formed by multiplying each nonscaling indicator of agreeable behavior with each nonscaling indicator of disagreeable behavior.

An interaction term was included in the model because it seemed plausible that agreeable behavior would moderate the association between disagreeable behavior and people's perception of their partner, that is, high levels of agreeable behavior might mitigate the negative consequences of disagreeable behavior on people's perceptions of their mate. This finding would be compatible with past research (e.g., Huston & Chorost, 1994) in which high levels of affectionate behavior buffered spouses' marital satisfaction against the corrosive effects of negativity in cross-sectional and longitudinal analyses.

The variable labeled perceived agreeableness represents people's perception of the extent to which their partner is good-natured rather than irritable. Thus, in many respects, this variable corresponds with the agreeableness component of the Big Five personality factors (e.g., John, 1990; McCrae & Costa, 1987). Paths a to c in Figure 1 link people's perceptions of their partner's agreeableness to their reports of the partner's agreeable and disagreeable behaviors. Thus, the model suggests that people's perception of their partner's agreeableness will be a function of the extent to which they perceive their partner engages in these types of behaviors.

According to Figure 1, positive illusions are present when people perceive their partner as more agreeable than would be predicted based on their reports of their partner's agreeable and disagreeable behavior. This definition is represented by the variable labeled positive illusions. Thus, positive illusions are assessed in the current investigation using residual scores. This approach to assessing illusions has a counterpart in past research (e.g., John & Robins, 1994; Paulhaus, 1998; Robins & Beer, 2001; Robins & John, 1997) that examined people's tendency to engage in self-enhancing personal assessments.

The residual scores constitute the basis for subsequent analyses. Specifically, people's newlywed positive illusions scores are used to predict (a) their own and their partner's love when couples were first wed, (b) changes in love for the partner throughout the next 13 years of marriage, and (c) whether the couples remained married or divorced. The prediction that people's illusions will promote their own feelings of love reflects the supposed benefits of projected illusions (Murray et al., 1996b). In contrast, the prediction that people's illusions also will promote their partner's feelings of love reflects the supposed benefits of reflected illusions (Murray et al., 1996b). This reflected illusions hypothesis is based on the notion that people prefer it when their partner perceives desirable qualities in them that they may not actually possess.

METHOD

Participants

The sample consisted of 168 newlywed couples who participated in a four-wave 13-year study of marriage. Data on the early years of marriage were gathered on three occasions: In 1980-1981, when couples were newlyweds (i.e., had been married on average for 2 months; Phase 1); when couples had been married for 1 year (Phase 2); and when couples had been married for 2 years (Phase 3). Additional data were gathered on a fourth occasion in 1994-1995 (Phase 4), at which time couples had been married approximately 13 years. Four hundred eligible newlywed couples were identified through marriage license records available in the courthouses of four rural counties in central Pennsylvania. Of the pool of eligible couples, 168 (42%) chose to participate in the research project. The eligible couples who declined participation in the study primarily gave lack of interest and insufficient time as reasons for nonparticipation. Participants were similar to local couples married during the same period in terms of age on their wedding day (M = 21, SD = 3.42, for wives; M = 24, SD = 4.22, for husbands), ethnicity (99% were White), educational level (55% had finished high school), and the occupational status of their parents (61% were raised in a working-class family; Robins, 1985).

With the exception of analyses predicting marital stability, this study focused on marital interaction. Thus, only couples who were still married at a given phase of the study typically were included in the analyses. Divorce represents a major source of attrition across the four waves of the study. Ten couples (7%) had separated or divorced by Phase 2. This number rose to 14 couples (8%) by Phase 3 and to 56 couples (33%) by Phase 4. Moreover, at Phase 4, data were not available for four couples who could not be located and three couples whose marriage had ended due to the death of a spouse.

Although it is uncertain how attrition due to divorce may have affected the results, it seems plausible that people who divorced prior to a given wave of data collection may have been higher than other couples in perceived disagreeable behavior at the time of their divorce. Also, it seems plausible that they may have been lower in perceived agreeable behavior, positive illusions, and marital love. As a consequence, attrition due to divorce may have caused a restriction of range in these variables. This, in turn, would make it relatively difficult to detect associations between people's ratings of their partner's traits and their reports of their partner's behavior or between people's illusions scores and both their own and their partner's love.

Procedure

During each phase of data collection, face-to-face interviews were used to gather information about people's love for their partner and their perceptions of their partner's agreeableness. The interviews generally lasted between 2 and 3 hours and were conducted at the couple's convenience. Although some of the interviews were carried out on a university campus, most took place in the couple's home. Interviews for husband and wife were conducted simultaneously but separately, with a male researcher interviewing the husband in one room and a female researcher interviewing the wife in another.

A series of daily diary telephone interviews were conducted during Phase 1 to follow up on participants' face-to-face interviews. The telephone interviews were used to gather quasi-observational (Weiss & Heyman, 1990) data about marital interaction, including reports of the frequency of agreeable and disagreeable behaviors. Nine telephone diary interviews, each about 15 to 20 minutes in length, were conducted during Phase 1 of the study. During each of the telephone interviews, participants were read statements about seven desirable and six undesirable interpersonal behaviors and were asked to indicate the number of times, if any, their partner engaged in these behaviors during the 24-hour period ending at 5:00 p.m. the day of the call. To ensure respondent privacy, spouses were asked to go to a place in the house where they could speak privately. Also, the interview questions were structured in a way that made it difficult for an eavesdropping partner to understand what was being said.

Measurement

Perceived agreeable and disagreeable behavior. During the daily diary telephone interviews, spouses were asked to respond to several items about their partner's behavior. These items were drawn from a larger list developed by Wills, Weiss, and Patterson (1974). Four of these behaviors were chosen as indicators of agreeable behavior and three as indicators of disagreeable behavior due to their high degree of conceptual overlap with the traits selected for the measure of perceived agreeableness (see below). The four agreeable behaviors were as follows: "Your husband/wife expressed approval of you or complimented you about something you did," "Your husband/wife did or said something that made you laugh," "Your husband/wife said, 'I love you,'" and "You expressed physical affection with your husband/wife, such as kissing, hugging, cuddling." The three negative behaviors were as follows: "Your husband/wife showed anger or impatience by yelling, snapping, or raising his/her voice at you," "Your husband/wife criticized or complained about something that you did or didn't do," and "Your husband/wife seemed bored or uninterested while you were talking." Principal components analyses showed that the items form two distinct factors, and alphas for agreeable behavior and disagreeable behavior at Phase 1 were greater than .70 for both husbands and wives. Daily averages for each of these items were created by aggregating scores across each of the daily diary telephone interviews and then dividing by the number of interviews.

To reduce multicollinearity between the agreeable by disagreeable interaction and its components, the indicators for agreeable behavior and disagreeable behavior were centered in keeping with recommendations made by Aiken and West (1991). Indicators for the Agreeable \times Disagreeable interaction then were created using these centered values.

In using people's daily diary telephone reports of their partner's behavior to assess illusions, we do not claim that people's accounts of their partner's actions represent an objective description of behavior patterns in their relationship. People's reports of their partner's behavior will, in part, reflect an interpretive process. However, to the extent that people's reports of their partner's behavior are biased, they may actually constitute a conservative standard against which to assess their perceptions of their partner for signs of an interpretive bias. This is the case because information provided by the same person is more strongly interrelated than information provided by different persons. Thus, using people's own reports of their partner's behavior to predict their ratings of their partner's agreeableness will, if anything, make people's perceptions of their partner

appear to be more heavily grounded in the reality of the partner's actions than is actually the case. To the extent, therefore, that people continue to vary in terms of the qualities that they attribute to their partner even when we control for how they report the partner behaves, it should be relatively certain that we are studying the extent to which they interpret what they believe to be their partner's behavior in a charitable manner.

Perceived agreeableness. During the Phase 1 face-to-face interview, participants rated their partner's personality using 80 traits drawn from a larger list compiled by Anderson (1968). Respondents were seated in front of a row of cards numbered from 1 to 7. They then were given a deck of cards, each of which had a trait adjective printed on it, and were asked to indicate the extent to which each trait was characteristic of their partner by placing it under the appropriate numbered card (1 = not at all like the partner, 7 = very much like the partner).

Of the 80 traits, 7 were selected as being particularly representative of the extent to which people perceive their partner as agreeable. The selected traits were pleasant, cheerful, friendly, happy, easygoing, patient, and understanding. These traits were chosen due to their high degree of conceptual overlap with the behaviors selected for the measures of agreeable and disagreeable behavior (see above).

Principal components analyses indicated that the traits loaded on a single dimension for husbands and wives. In addition, the alphas for the measures were greater than .70 for both genders. Thus, the measures appeared to adequately capture people's impressions of the extent to which their partner possessed an agreeable temperament.

Marital love. Love was assessed during each faceto-face interview (i.e., in Phases 1-4) using the love scale from Braiker and Kelley's (1979) Relationship Questionnaire. This scale consists of 10 9-point Likerttype items that assess the degree to which people feel a sense of belonging, closeness, and attachment with their partner (e.g., "To what extent do you feel that the things that happen to your partner also affect or are important to you?"). In rating their feelings of love, participants were asked to think about their marriage during the preceding 2 months. Items for the love scale were averaged, with higher scores reflecting greater love toward the partner. Alpha coefficients for love across the four phases of the study ranged from .78 to .91.

Analytic Strategy

The model in Figure 1 was tested using the two-stage least squares (2SLS) approach (Bollen, 1995). The 2SLS approach was advantageous for several reasons (Bollen, 1996; Bollen & Paxton, 1998). First, it is by far the simplest approach to testing interactions of latent variables. Second, evidence suggests that this approach may have better small sample properties than its alternatives. Third, this approach does not require that the indicators for latent variables be normally distributed. Fourth, it is able to save residuals in prediction, including the residuals in prediction that constitute the measure of positive illusions used in this study.

The idea behind the 2SLS approach is that the nonscaling indicators of latent constructs in Figure 1 can be used to purge measurement error from the scaling indicators of these latent constructs, thereby creating estimates of the underlying latent variables in the model. This is the case because the nonscaling indicators are presumed to be correlated with the scaling indicators but not with the disturbances in their measurement equations. For example, the scaling indicator for the latent variable agreeable behavior in Figure 1 is approve. This indicator reflects the item, "Your husband/wife expressed approval of you or complimented you about something you did," and is given a loading of 1 to provide a scale for the latent variable agreeable behavior. The model in Figure 1 assumes that the nonscaling indicators of the latent variable agreeable behavior (laugh, love, and affection) should be correlated with its scaling indicator (approve) but not with the disturbance in the measurement equation for this scaling indicator (δ_1). Specifically, the nonscaling indicators of laugh, love, and affection should be correlated with the scaling indicator approve because all of these indicators reflect the underlying latent variable agreeable behavior. However, the nonscaling indicators laugh, love, and affection should not be correlated with the disturbance in the measurement equation for the scaling indicator approve because, by definition, this term reflects variability in approve that is not shared in common with the other indicators.

Based on the assumption that the nonscaling indicators are correlated with the scaling indicators in Figure 1 but not with the disturbances in their measurement equations, the 2SLS approach allows us to create estimates of latent variables in the model by regressing their scaling indicators on their nonscaling indicators and saving the predicted values. These values are known as first-stage regression estimates. For example, it is possible to create estimates of the latent variable agreeable behavior by regressing its scaling indicator approve on the nonscaling indictors laugh, love, and affection and then saving the predicted scores. These estimates of the latent variable agreeable behavior and similarly derived estimates of the latent variable disagreeable behavior as well as the latent Agreeable \times Disagreeable interaction then can be used in the second stage of the 2SLS analysis to predict the extent to which

	1	2	2	1	5	6	7	0	0	10	11	10	12	14	15	м	sD.
	1	2)	7)	0	/	0	1	10	11	12	1)	17	1)	IVI	50
Perceived agreeableness	_	.28	.25	.24	.10	36	14	36	.15	.11	.30	.00	.17	.00	.17	6.09	.83
Partner showed approval	.26	_	.35	.39	.25	05	06	08	14	05	06	09	07	08	10	.00	1.05
Partner made you laugh	.15	.41		.41	.55	08	.11	10	04	.14	20	.10	03	.09	13	.00	3.03
Partner said "I love you"	.24	.44	.53	_	.62	06	.07	07	12	.08	04	.06	07	.05	07	.00	6.61
Partner showed affection	.27	.55	.50	.70	_	.03	.08	08	10	.08	14	.05	06	.07	14	.00	4.18
Partner showed anger	24	.10	.11	.04	.09	_	.57	.67	34	06	29	04	13	.07	.00	.00	.54
Partner criticized	27	.13	.06	03	.02	.82	_	.58	20	.32	04	.20	03	.29	.03	.00	.42
Partner acted bored	26	.06	.08	.06	.08	.76	.77	_	30	02	48	02	32	.02	29	.00	.54
Approve × Anger	02	.10	.04	01	.13	.32	.25	.14		.19	.36	.23	.30	.15	.25	03	.50
Laugh × Criticized	.06	03	.03	08	.04	.12	.12	.12	.28		.42	.62	.16	.84	.25	.14	1.79
Laugh × Bored	01	07	.03	.01	.02	.19	.12	.19	.28	.80	_	.22	.50	.30	.60	16	1.25
Love × Criticized	04	09	08	13	.00	02	05	.00	.53	.50	.41	_	.59	.77	.38	.21	3.21
Love × Bored	08	12	.01	.03	.04	.04	.00	.05	.46	.36	.53	.79		.33	.74	26	3.06
Affection × Criticized	01	05	.04	.00	.06	.06	07	02	.63	.67	.63	.83	.72	_	.45	.16	2.19
Affection × Bored	01	10	.01	.04	.11	.05	02	.02	.55	.56	.61	.72	.83	.87	_	17	1.84
M	5.84	.00	.00	.00	.00	.00	.00	.00	.09	.07	.07	10	.15	.06	.12		
SD	0.84	1.11	2.41	7.21	4.52	.75	.55	.35	1.03	1.30	.81	3.64	2.55	2.46	1.73		

TABLE 1: Correlations, Means, and Standard Deviations for Assessing Illusions at Phase 1

NOTE: Correlations for husbands are presented below the diagonal and correlations for wives are presented above the diagonal. Means and standard deviations for husbands are presented in the bottom two rows of the table and those for wives are presented in the last two columns. For Phase 1, N = 162.

people perceive their partner as having an agreeable personality (perceived agreeableness in Figure 1).

RESULTS

Two criteria are normally used to assess the fit of a 2SLS model. The first criterion is the first-stage R^2 that one obtains from regressing each scaling indicator on the nonscaling indicators, which also are known as instrumental variables or instruments. The idea behind this test is that if indicators in the model reflect an underlying construct, they should be substantially correlated. According to Bollen (1995), each R^2 from the first-stage regressions should be at least .10. Otherwise, the nonscaling indicators in the model will not be sufficiently correlated with the scaling indicators to purge them for measurement error.

The second criterion concerns whether the proposed instruments are associated with the Instrumental Variable (IV) residuals from the 2SLS analyses. IV residuals for the model in Figure 1 are obtained from a regression equation in which the criterion is people's perception of the extent to which their partner has an agreeable personality, the predictors are the original values of the scaling indicators for the latent variables, and the coefficients are the estimates taken from the second stage of the 2SLS analysis. The rationale underlying this test is that if the nonscaling indicators are correlated with the scaling indicators but with not the disturbances in their measurement equations (as the model in Figure 1 assumes), they should not be associated with the IV residuals (which reflect the disturbances in the measurement equations). Basman (1960) provides a test of this association that is distributed as an F statistic.

Overview

To create residual newlywed positive illusions scores, the model in Figure 1 was tested with data collected at Phase 1 of the study. Spouses' residual positive illusions scores then were used to predict their own and their partner's feelings of love at Phase 1 and changes in their own and their partner's feelings of love at their first wedding anniversary, their second wedding anniversary, and across the first 13 years of marriage. In addition, these scores were used to determine whether illusions are positively associated with relationship stability as had been observed previously with dating couples (e.g., Murray et al., 1996b).

Tests of the study's hypotheses were conducted using multiple imputation (Rubin, 1987) and listwise deletion. Results from the analyses using multiple imputation were very similar to the ones using listwise deletion and did not affect any of the conclusions. The results from the analyses using listwise deletion are reported below. The results from the analyses using multiple imputation are available from the first author upon request.

Tests of Model Fit for Concurrent Assessments of Positive Illusions

The correlations, means, and standard deviations for the variables used to examine the model in Figure 1 are presented in Table 1 and the fit statistics for this model are presented in Table 2. As depicted in the top portion

	Husband Model Phase 1	Wife Model Phase 1
1st stage R^2		
R^2 approval	.39	.24
R^2 anger	.77	.60
R^2 Approval × Anger	.58	.23
Basman F	(8, 150) = .69, ns	(8, 150) = .83, ns
2nd stage R^2	.18	.23
Paths		
a: Agreeable Behavior → Perceived Agreeableness	.39 (.51)***	.64 (.80)***
b: Disagreeable Behavior → Perceived Agreeableness	46 (40)***	08 (05)
c: Agreeable × Disagreeable Interaction → Perceived Agreeableness	02 (02)	1.12 (.68)*

TABLE 2:	Fit Statistics and Path Coefficients for Models Assessing
	Positive Illusions in Phase 1

NOTE: See Figure 1 for details of the model. Phase 1: N = 162. Coefficients outside of parentheses are unstandardized. Coefficients inside parentheses are standardized.

p < .05. p < .001.



Figure 2 The buffering effect of agreeable behavior for wives as newlyweds.

of Table 2, models based on Figure 1 fit the data for both husbands and wives. Each R^2 from the first-stage regressions was greater than .10, indicating that the nonscaling indicators for the models based on Figure 1 were sufficiently correlated with the scaling indicators to function as instruments. Also, values for the Basman *F* were nonsignificant for husbands and wives. Thus, the nonscaling indicators for these models were uncorrelated with the measurement errors in the scaling indicators. Overall then, results from the tests of model fit indicate that the nonscaling indicators in Figure 1 function as instrumental variables that can be used to purge measurement error from the scaling indicators, thereby yielding valid estimates of the links between the latent measures of perceived partner behavior and people's ratings of their partner's qualities.

"Reality" Coefficients Linking Perceived Behavior to Perceived Agreeableness

The lower half of Table 2 contains the 2nd stage R^2 s that one obtains by regressing ratings of perceived agreeableness (see Figure 1) on the 1st stage estimates of agreeable behavior, disagreeable behavior, and the Agreeable × Disagreeable Interaction as well as the reality coefficients that link people's perceptions of their partner's qualities to their reports of the partner's behavior. The 2nd stage R^2 s in Table 2 are Generalized R^2 s (Peseran & Smith, 1994). These are the R^2 s one gets by carrying out the 2SLS analysis as two separate regressions instead of using a 2SLS routine such as Proc Syslin in SAS. Unlike the 2nd stage R²s derived from 2SLS routines that are based on the original values of the scaling indicators rather than the predicted values from the 1st stage regressions, the Generalized R^2 is bound between zero and one. As such, it can be interpreted like any other R^2 . The 2nd stage R^2 s for the model were .18 for husbands and .23 for wives. The mean R^2 was .21.

As shown in the lower portion of Table 2, husbands' ratings of perceived agreeableness were strongly associated with both agreeable behavior and disagreeable behavior but not the interaction between the two. In contrast, the results for wives were relatively complex. Wives' ratings of perceived agreeableness were strongly linked to agreeable behavior but not to disagreeable behavior. However, the presence of a significant interaction coefficient suggested that the latter relationship might vary as a function of agreeable behavior.

To test this possibility, we plotted the association between perceived agreeableness and disagreeable behavior for wives whose partners had high, medium, and low scores for agreeable behavior. High and low levels of agreeable behavior were defined as 1 *SD* above and 1 *SD* below the mean, respectively. The results are shown in Figure 2. As depicted in the figure, the strength of the association between perceived agreeableness and disagreeable behavior clearly varied as a function of agreeable behavior. Specifically, the relationship between the two variables increased as levels of agreeable behavior decreased, suggesting that high levels of agreeable behavior buffered wives against the effects of disagreeable behavior on their perceptions of their partner.

TABLE 3: Test of Effect Indicators Measurement Model at Phase 1

	Husbands	Wives
1. Illusions $\leftarrow \rightarrow$ Partner showed approval	.13	.14
2. Illusions $\leftarrow \rightarrow$ Partner made you laugh	01	01
3. Illusions $\leftarrow \rightarrow$ Partner said "I love you"	.03	.01
4. Illusions $\leftarrow \rightarrow$ Partner showed affection	.04	03
5. Illusions $\leftarrow \rightarrow$ Partner showed anger	.01	11
6. Illusions $\leftarrow \rightarrow$ Partner criticized	.00	.08
7. Illusions $\leftarrow \rightarrow$ Partner acted bored	.02	07
8. Illusions $\leftarrow \rightarrow$ Approve \times Anger	.09	.03
9. Illusions $\leftarrow \rightarrow$ Laugh × Criticized	.14	.03
10. Illusions $\leftarrow \rightarrow$ Laugh \times Bored	.12	.10
11. Illusions $\leftarrow \rightarrow$ Love × Criticized	.02	10
12. Illusions $\leftarrow \rightarrow$ Love \times Bored	.01	.01
13. Illusions $\leftarrow \rightarrow$ Affection \times Criticized	.06	04
14. Illusions $\leftarrow \rightarrow$ Affection × Bored	.09	.09

NOTE: For Phase 1, N = 162.

**p* < .05.

Testing the Plausibility of the Effect Indicators Model

To assess the plausibility of the effect indicators measurement model in Figure 1, each of the individual indicators of agreeable behavior, disagreeable behavior, and the Agreeable × Disagreeable interaction were correlated with people's positive illusion score. Because this score reflects variance in people's rating of their partner's qualities that remains after controlling for agreeable behavior, disagreeable behavior, and the Agreeable \times Disagreeable interaction, this is a test of whether the individual indicators predict people's ratings of their partner's qualities once what they share in common (i.e., the latent measures of perceived partner behavior) has been taken into account. If the individual indicators do not predict people's illusion score, then the effect indicators model would be supported. If, however, these indicators were associated with people's positive illusion score, then the score would suggest that the behavioral reality on which people base their ratings of their partner's agreeableness cannot be captured by assessing the shared variance between a limited number of agreeable and disagreeable behaviors. In other words, this finding would suggest that the model in Figure 1 underestimates the extent to which people's perceptions of their partner are determined by their reports of their partner's behavior and overestimates the extent to which people tend to interpret their partner's behavior in a charitable manner.

The correlations between the individual indicators and people's positive illusion score (see Table 3) show that the individual indicators did not predict perceptions of the partner's qualities after what they shared in common had been removed. None of the 28 correlations in the table were statistically significant. More important, the magnitude of the correlations tended to be quite small. Most of the indicators explained less than 1% of



Figure 3 Predicting newlywed levels of love.

the variance in illusions at Phase 1 of the study. Thus, the idea that it is possible to capture the behavioral reality on which people base their ratings of their partner's agreeableness by assessing the agreement between a representative sample of indicators appears to be plausible.

As a further test of the effect indicators assumption, we also compared the model in Figure 1 with an alternative model that used individual behaviors to predict people's ratings of their partner's agreeableness. Specifically, we compared a regression model in which people's ratings of their partner's agreeableness were regressed on the estimates of agreeable behavior, disagreeable behavior, and the interaction between the two from Figure 1 with a regression model in which people's ratings of their partner's agreeableness were instead regressed on the individual behavior indicators (e.g., approve, laugh, love) as well as the interactions between these indicators. Because these two models were not nested, they were compared using the Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) tests (Akaike, 1969; Sawa, 1978).

The AIC and BIC allow for tests of the relative goodness-of-fit of nonnested models. Both approaches impose a penalty for including too many terms in a regression model. For both husbands and wives, the results from these analyses consistently showed that the model in Figure 1 fits the data better than the alternative containing individual behavioral indicators. Thus, the results provided further support for the effect indicators model. Output for these analyses are available from the first author on request.

Newlywed Level Associations Between Positive Illusions and Love

Figure 3 depicts the link between the residual assessments of idealization from the models based on Figure 1 and love at Phase 1 in the study. Specifically, paths a and a' test the possible benefits of what Murray et al. (1996a, 1996b) call "projected illusions" by indexing the link between newlyweds' illusions and their own feelings of love for the spouse. In contrast, paths b and b' test the possible benefits of what Murray et al. (1996a, 1996b) refer to as "reflected illusions" by assessing the association

	1	2	3	4	5	6	7	8	9	10
Husband's data										
Illusions at Phase 1	_									
Love at Phase 1	.31	_								
Love at Phase 2	.33	.60								
Love at Phase 3	.17	.59	.74	_						
Love at Phase 4	.15	.40	.54	.53	_					
Wife's data										
Illusions at Phase 1	05	.02	.07	.15	.12					
Love at Phase 1	.18	.26	.32	.28	.20	.30				
Love at Phase 2	.25	.04	.36	.26	.22	.13	.49		_	
Love at Phase 3	.12	.15	.31	.40	.36	.19	.42	.66		
Love at Phase 4	.13	.17	.18	.15	.37	.25	.31	.41	.51	_
M	.00	8.10	7.83	7.78	7.78	.00	8.37	8.05	7.98	7.80
SD	.77	.72	.96	1.12	.97	.73	.72	.83	1.08	1.16

TABLE 4: Correlations, Means, and Standard Deviations for Analyses Linking Illusion and Love

NOTE: For Phases 1-2, N = 133; For Phases 1-3, N = 113; For Phases 1-4, N = 89.

TABLE 5: Newlywed Associations Between Illusions and Love

a: Husband's Idealization \rightarrow Husband's Love .30 (.3)	2)***
a': Wife's Idealization \rightarrow Wife's Love .30 (.5	1)***
b: Husband's Idealization \rightarrow Wife's Love .11 (.1	2)*
b': Wife's Idealization \rightarrow Husband's Love .11 (.1	1)*

NOTE: See Figure 3 for details of the model. Phase 1: N = 162. Coefficients outside the parentheses are unstandardized. Coefficients inside the parentheses are standardized. *p < .05. ***p < .001.

between newlyweds' illusions and their partner's feelings of love.

The model in Figure 3 was tested using SAS Proc Mixed because it is capable of controlling for the nonindependence of observations in dyadic data. Interaction terms for gender were included in model tests. No gender differences were obtained for any of the paths. Thus, paths in the model were constrained to be equal. Constraining male and female paths to be equal allows the coefficients to be estimated with greater precision, thereby increasing statistical power (Kenny, 1996). The correlations, means, and standard deviations of the variables used to examine the model are presented in Table 4. The coefficients for the model are presented in Table 5. As shown in Table 5, people's illusions were positively associated with both their own and their partner's feelings of love.

Newlywed Levels of Positive Illusions and Changes in Love

Figure 4 depicts the links between illusions assessed at Phase 1 and changes in love. Paths a and a' in Figure 4 index the association between people's love as newlyweds and their love at later phases in the study. These paths serve two functions. First, they represent stability



Figure 4 Predicting changes in love.

in love from the newlywed phase of the study to subsequent phases. Second, they transform the remaining paths in the model into predictions of residual change. Thus, remaining coefficients in the model reflect predictions of residual change in love. Specifically, paths b and b' represent the link between people's illusions when they entered marriage and changes in their own love and paths c and c' represent the link between people's newlywed levels of illusions and changes in their partner's love.

The model in Figure 4 was tested using Proc Mixed. The coefficients linking people's newlywed levels of illusions to changes in their own and their partner's love are shown in Table 6. Again, none of the interaction terms were used to test whether the coefficients for husbands and wives were significantly different. Thus, Table 6 displays a single estimate of the coefficients for

	Phases 1-2	Phases 1-3	Phases 1-4
a: Husband's Initial Love → Husband's Love at Later Phase	.70 (.53)***	.81 (.52)***	.44 (.33)***
a': Wife's Initial Love \rightarrow Wife's Love at Later Phase	.70 (.61)***	.81 (.54)***	.44 (.27)***
b: Husband's Illusions \rightarrow Husband's Love at Later Phase	.11 (.09)†	.07 (.05)	.20 (.16)†
b': Wife's Illusions \rightarrow Wife's Love at Later Phase	.11 (.10)†	.07 (.05)	.20 (.13) †
c: Husband's Illusions \rightarrow Wife's Love at Later Phase	.10 (.09)†	.15 (.11)†	.13 (.09)
c': Wife's Illusions \rightarrow Husband's Love at Later Phase	.10 (.08)†	.15 (.10)†	.13 (.09)

TABLE 6: Newlywed Illusions and Changes in Love

NOTE: See Figure 4 for details of the model. Phase 1-2: N = 133, Phase 1-3: N = 113, Phase 1-4: N = 89. Coefficients outside the parentheses are unstandardized. Coefficients inside the parentheses are standardized. $\dagger p < .10$. ***p < .001.

both husbands and wives. As shown in Table 6, people's feelings of love were quite stable during the early years of marriage (i.e., from phases 1-2 and phases 1-3) and somewhat stable across the first 13 years of marriage (i.e., from phases 1-4).

Despite this stability, newlywed spouses' positive illusions were positively associated with changes in both their own and their partner's feelings of love. Although the magnitude of the coefficients tended to be fairly small and only approached conventional standards of statistical significance, they were fairly consistent across the various phases of the study. Thus, the results suggested that marital love is less likely to decline when partners enter marriage with idealized images of one another.

Newlywed Levels of Positive Illusions and Divorce

Thus far, the results have shown that newlyweds were less likely to experience declines in love across the four phases of the study when they initially idealized their partner and when their partner initially idealized them. Given that declines in love in the early years of marriage are associated with marital instability (e.g., Huston et al., 2001), these results suggest that spouses who entered marriage with idealized images of their partner also might have been less likely to divorce than other individuals. Two types of analyses were used to test for this possibility. First, Proc Mixed was used to regress marital stability (1 = together, 0 = apart) on newlywed husbands' and wives' positive illusions scores. Second, Proc Mixed was used to conduct analyses of variance where couple was the unit of analysis and male and female positive illusions scores were repeated measures within couples. Neither of these two sets of analyses revealed a link between newlywed levels of positive illusions and divorce at any phase of the study. Thus, the results suggest that whereas partners who entered marriage with low levels of illusions were more likely to suffer declines in love than other people, they were not more likely to divorce. This contrasts with results obtained using samples of dating couples (e.g., Murray

et al., 1996a, 1996b), in which breakups were more likely to occur when partners had low levels of illusions.

DISCUSSION

The current investigation makes three contributions to the literature on positive illusions in close relationships. First, it offers a new, and potentially valuable, way to understand the phenomenon of positive illusions by operationalizing it as people's tendency to perceive their partner more favorably than would be expected based on their perception of how their partner behaves toward them on a day-to-day basis. As a result, the study was able to distinguish between positive illusions as a cognitive process in which people put a positive spin on their partner's behavior and illusions that result from a behavioral process in which people form overly positive perceptions of their partner because the partner's behavior in the relationship is more positive than would be expected based on the partner's description of their own behavior.

In support of the residual measure of illusions used in this study, the indicators of agreeable behavior and disagreeable behavior apparently functioned as effect indicators rather than cause indicators. Specifically, the individual indicators of agreeable behavior and disagreeable behavior generally did not predict people's perceptions of their partner once the variance they shared in common had been taken into account. More important, the amount of variance the indicators accounted for once their shared variance had been taken into account tended to be quite small. This result supports the validity of the residual measure of illusions used in this study because it suggests that it is possible to adequately assess the behavioral reality on which people base their perceptions of their partner using only a small number of indicators.

Most recent writing about positive illusions has been built around the cognitive model (e.g., Murray et al., 1996a, 1996b). This study, by controlling the spouses' perceptions of each other's behavior, provides particularly strong support for such a model. This support is particularly noteworthy because we concentrated on a single specific quality (albeit an important one for relationships) and because recent research (Neff & Karney, 2002) indicates that idealization—when assessed by comparing partners' assessments with their self-views—is relatively small when it comes to specific attributes compared to more global assessments.

The fact that we have focused on cognitively based positive illusions here should not be taken to suggest that intimate partners do not create illusions, unwittingly or intentional, by behaving in ways that create the sense that they have virtues that they do not actually possess. A large body of research, reaching back to early work on attraction and ingratiation (see Jones, 1964) and selffulfilling prophecies (Snyder, Tanke, & Berscheid, 1977), shows that attraction leads to ingratiation and ingratiation, when done with appropriate subtlety, in turn, fuels attraction.

It is also important to keep in mind that partners' actual qualities do matter considerably in relationships. The real personality qualities that partners bring to relationships get played out in intimate relationships, both before partners tie the marital knot and after they marry (see Caughlin & Huston, 2006). The models used here to create measures of positive illusions also indicate, to a large extent, that the perception of the partner's behavior was linked to the perception of the partner's attributes when couples were newlyweds. For husbands, perceived agreeableness was significantly associated with agreeable behavior and disagreeable behavior but not with the interaction between the two. For wives, perceived agreeableness was significantly associated with agreeable behavior and the interaction between agreeable behavior and disagreeable behavior. After decomposing the interaction, it was clear that high levels of agreeable behavior buffered wives' perceptions of their partner against the damaging effects of their perceptions of their partner's disagreeable behavior. This was in keeping with previous work about the links between marital satisfaction and positive and negative behaviors (e.g., Huston & Chorost, 1994).

Second, the current investigation also contributed to the literature on positive illusions by assessing what heretofore was largely an unexamined link between positive illusions and marital love. Theory suggests that people form idealized images of their partner to maintain feelings of closeness, belonging, and attachment and that the replacement of idealized images of one's partner with more realistic ones ought to be associated with the development of disillusionment, disaffection, and divorce (e.g., Waller, 1938). Thus, this study focused on the connections between positive illusions and marital love. The findings indicated that people's illusions promoted their own love at Phase 1 of the study. Also, there was some evidence that people's tendency to idealize their partner when they were newlyweds protected both them and their partner from declines in love over time.

Finally, the study contributed to the literature on positive illusions by examining the effects of positive illusions on marriage throughout a period of 13 years. The results indicated that the effects of positive illusions were beneficial and evident not only during the theoretically critical period following the transition from courtship to marriage but also tended to persist throughout the next 13 years of marriage. Even though the longitudinal effects were only marginally significant, this finding is noteworthy, especially considering the backdrop of high stability of love over time.

Because declines in love in the early years of marriage are known to predict divorce (Huston et al., 2001), we expected that spouses who entered marriage with idealized images of their partner would be less likely to divorce than would other individuals. It therefore was somewhat surprising that people who idealized their partner as newlyweds were not less likely to divorce. It appears that newlywed idealization may have a stronger influence on marital love than it did on marital stability. The lack of an association between illusions and marital stability suggests some limitations on the benefits of positive illusions, that is, illusions do not seem to protect couples against divorce.

Although low initial levels of illusions left people vulnerable to declines in love, it is possible that these effects were not powerful enough to trigger the decision to divorce. It may be factors other than initial levels of idealization that determine whether couples stay together. For example, it may be that in couples who divorce, significant deterioration in the behavioral climate of relationships overwhelms the less powerful effects of idealization.

In addition, people's sense of the barriers to ending their relationship could easily moderate the association between newlywed illusions and divorce. Even if people's love for their partner begins to decline, they may be unlikely to divorce if moral or structural commitment (Johnson, 1991) is high. This would be the case even if they were not particularly inclined to see the best in their partner. Presumably, moral and structural commitment will be considerably higher in marriage than during courtship. This may explain why initial levels of positive illusions predict stability in dating relationships (e.g., Murray et al., 1996a, 1996b) but not in marriage. Low levels of illusions in the absence of these types of commitment may lead people to end their dating relationships when they begin to deteriorate. In contrast, greater variability in these types of commitment in marital relationships may mask the links between newlywed levels of illusions, changes in people's feelings about their spouse, and relationship dissolution.

Also, it is important to recognize that this study does not directly address the issue of whether spouses who have clear-eyed views of one another have more satisfying and stable marital unions, as Swann and his colleagues (Swann, De La Ronde, & Hixon, 1994; Swann, Hixon, & De La Ronde, 1992) have argued. It is quite possible, for example, that spouses can adore each other, have a generally accurate view of each other, and be charitable, all at the same time (Neff & Karney, 2005), and that each of these contributes to the wellbeing of a relationship. We know from a large body of literature (Karney & Bradbury, 1995), however, that whether a marriage succeeds or fails is not just a matter of how partners frame their experiences together. Potential problems in marriage are particularly apt to become real when adoration leads a person to miss seeing, before committing to marriage, that a partner lacks the personal qualities or resources that are germane to establishing a stable, mutually satisfying marital union.

Limitations and Future Research

Similar to any study, this one has its limitations. One limitation of the study is that the traits people used to describe their partner did not perfectly match with behaviors at a high level of specificity. For example, one of the behaviors from the diary data concerned the partner approving of the spouse. Ideally, this behavior would have been paired with a trait such as "approving," but unfortunately, this was not possible in the current study. Instead, it was necessary to use behaviors that overlapped with traits in a more general way. For instance, all of the behaviors used in the current study overlapped conceptually with the trait "pleasant." Although this seems to be a reasonable approach to measuring idealization, models that matched behaviors and traits at a more specific level would have had greater face validity and might have explained more of the variance in people's perception of their partner.

A second limitation of the study was that people were not specifically instructed to think about their relationship when assessing their partner's traits. Thus, it is possible that they described their partner's qualities across several contexts rather than within the context of their own relationship. For example, people's rating of the extent to which their partner is pleasant might reflect the extent to which they see the partner as being pleasant within the context of their marriage but also in relationships with other family members or friends. This contrasts with the measures of partner behavior, which clearly were specific to the relationship. Thus, it is possible that discrepancies between how people rated their partner's qualities and what would have been predicted based on the partner's behavior could, in part, reflect differences in context (although Murray et al., 1996a, have argued that this is unlikely because participants in a study of close relationships will likely make their ratings with their own relationship foremost in mind). Thus, in future studies, it would make sense to ask people to describe their partner's qualities thinking specifically about the relationship and then to gather information about relevant behaviors that occur within that context or to ask people to describe their partner's qualities in general and then to gather information about the relevant behaviors across contexts in which people are likely to observe their partner. Such strategies would make it possible to more effectively rule out the possibility that differences between how people evaluate their partner and what would be expected based on their reports of the partner's behavior reflect context effects.

Future research also might want to examine the cognitive underpinnings of idealization. Thus far, studies have assessed a number of cognitive processes that could lead people to idealize their partner. For instance, studies (e.g., Murray & Holmes, 1993, 1994) show that people in satisfying relationships tend to emphasize the importance of their partner's virtues, to downplay the importance of their partner's faults, to find evidence of virtues in their partner's faults, and to create "Yes, but ... " refutations that link faults in their partner to greater virtues. Although studies have documented the existence of these processes, they have not linked them to existing measures of positive illusions. Thus, future research could link these kinds of processes to idealization, thereby providing direct support for the contention that they are the mechanisms through which people construct charitable images of their partner. We hope the present study will serve as a starting point for some of this research.

REFERENCES

- Aiken, L. S., & West, S. G. (1991). Multiple regression: Testing and interpreting interactions. Newbury Park, CA: Sage.
- Akaike, H. (1969). Fitting autoregressive models for prediction. Annals of the Institute of Statistical Mathematics, 21, 243-247.
- Alicke, M. D. (1985). Global self-evaluation as determined by the desirability and controllability of trait adjectives. *Journal of Personality and Social Psychology*, 49, 1621-1630.
- Anderson, N. H. (1968). Likableness ratings of 555 personality-trait words. Journal of Personality and Social Psychology, 9, 272-279.
- Basman, R. L. (1960). On finite sample distributions of general classical linear identifiability test statistics. *Journal of the American Statistical Association*, 55, 560-659.
- Bollen, K. A. (1995). Structural equation models that are nonlinear in latent variables: A least squares estimator. In P. M. Marsden (Ed.), *Sociological methodology* (pp. 223-251). Cambridge, MA: Blackwell.

- Bollen, K. A. (1996). An alternative two stage least squares (2sls) estimator for latent variable equations. *Psychometrika*, *61*, 109-121.
- Bollen, K. A., & Lennox, R. (1991). Conventional wisdom on measurement: A structural equation perspective. *Psychological Bulletin*, 110, 305-314.
- Bollen, K. A., & Paxton, P. (1998). Two-stage least squares estimation of interaction effects. In R. E. Schumacker & G. A. Marcoulides (Eds.), *Interaction and nonlinear effects in structural equation modeling* (pp. 125-151). Mahwah, NJ: Lawrence Erlbaum.
- Botwin, M. D., Buss, D. M., & Shackelford, T. K. (1997). Personality and mate preferences: Five factors in mate selection and marital satisfaction. *Journal of Personality*, 65, 107-136.
- Bourchard, G., Lussier, Y., & Sabourin, S. (1999). Personality and marital adjustment: Utility of the five-factor model of personality. *Journal of Marriage and the Family*, 61, 651-660.
- Braiker, H. B., & Kelley, H. H. (1979). Conflict in the development of close relationships. In R. L. Burgess & T. L. Huston (Eds.), *Social* exchange in developing relationships (pp. 135-168). San Diego, CA: Academic Press.
- Branje, S. J. T., Van Lieshout, C. F. M., & Van Aken, M. A. G. (2005). Relations between agreeableness and perceived support in family relationships: Why nice people are not always supportive. *International Journal of Behavioral Development*, 29, 120-128.
- Brehm, S. S. (1988). Passionate love. In R. J. Sternberg & M. L. Barnes (Eds.), *The psychology of love* (pp. 232-263). New Haven, CT: Yale University Press.
- Brickman, P. (1987). *Commitment, conflict, and caring.* Englewood Cliffs, NJ: Prentice Hall.
- Brown, J. D. (1986). Evaluations of self and others: Self-enhancement biases in social judgment. *Social Cognition*, *4*, 353-376.
- Buss, D. M. (1991). Conflict in married couples: Personality predictors of anger and upset. *Journal of Personality*, 59, 663-688.
- Buunk, B. P, & VanYperen, N. W. (1991). Referential comparisons, relational comparisons, and exchange orientation: Their relation to marital satisfaction. *Personality and Social Psychology Bulletin*, 17, 709-717.
- Caughlin, J. P., & Huston, T. L. (2006). The affective structure of marriage. In A. L. Vangelisti & D. Perlman (Eds.), *Cambridge handbook of personal relationships* (pp. 131-155). New York: Cambridge University Press.
- Donnellan, M. B., Conger, R. D., & Bryant, C. M. (2004). The Big Five and enduring marriages. *Journal of Research in Personality*, 38, 481-504.
- Endo, Y., Heine, S. J., & Lehman, D. R. (2004). Culture and positive illusions in close relationships: How my relationships are better than yours. *Personality and Social Psychology Bulletin*, 26, 1571-1586.
- Gable, S. L., & Reis, H. T. (2001). Appetitive and aversive social interactions. In H. Harvey & A. E. Wenzel (Eds.), *Close romantic relationship maintenance and enhancement* (pp. 169-194). Mahwah, NJ: Lawrence Erlbaum.
- Graziano, W. G., Jensen-Campbell, L. A., & Hair, E. C. (1996). Perceiving interpersonal conflict and reacting to it: The case for agreeableness. *Journal of Personality and Social Psychology*, 70, 820-835.
- Graziano, W. G., & Tobin, R. M. (2002). Agreeableness: Dimension of personality or social desirability artifact? *Journal of Personality*, 70, 695-727.
- Holmes, J. G., & Boon, S. D. (1990). Developments in the field of close relationships: Creating foundations for intervention strategies. *Personality and Social Psychology Bulletin*, 16, 23-41.
- Holmes, J. G., & Rempel, J. K. (1989). Trust in close relationships. In C. Hendrick (Ed.), *Review of personality and social psychology: Close relationships* (Vol. 10, pp. 187-219). Newbury Park, CA: Sage.
- Huston, T. L. (1994). Courtship antecedents of marital satisfaction and love. In R. Erber & R. Gilmour (Eds.), *Theoretical frameworks for personal relationships* (pp. 43-65). Hillsdale, NJ: Lawrence Erlbaum.
- Huston T. L., Caughlin J. P., Houts R. M., Smith S. E., & George, L. J. (2001). The connubial crucible: Newlywed predictors of marital delight, distress, and divorce. *Journal of Personality and Social Psychology*, 80, 237-252.
- Huston, T. L., & Chorost, A. F. (1994). Behavioral buffers on the effect of negativity on marital satisfaction: A longitudinal study. *Personal Relationships*, *1*, 223-239.

- Huston, T. L., & Houts. R. M. (1998). The psychological infrastructure of courtship and marriage: The role of personality and compatibility in romantic relationships. In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction* (pp. 114-151). Cambridge, UK: Cambridge University Press.
- Huston, T. L., & Vangelisti, A. L. (1991). Socioemotional behavior and satisfaction in marital relationships. *Journal of Personality and Social Psychology*, 61, 54-73.
- Jensen-Campbell, L. A., & Graziano, W. G. (2001). Agreeableness as a moderator of interpersonal conflict. *Journal of Personality*, 69, 323-362.
- John, O. P. (1990). The "Big Five" factor taxonomy: Dimensions of personality in the natural language and in questionnaires. In L. A. Pervin (Ed.), *Handbook of personality: Theory and research* (pp. 66-100). New York: Guilford.
- John, O. P., & Robins, R. W. (1994). Accuracy and bias in self-perception: Individual differences in self-enhancement and the role of narcissism. *Journal of Personality and Social Psychology*, 66, 206-219.
- Johnson, M. J. (1991). Commitment to personal relationships. In W. H. Jones & D. Perlman (Eds.), Advances in personal relationships (Vol. 3, pp. 117-143). London: Jessica Kingsley.
- Jones, E. E. (1964). Ingratiation: A social psychological analysis. New York: Appleton-Century-Crofts.
- Karney, B. R., & Bradbury, T. (1995). The longitudinal course of marital quality and stability: A review of theory, method, and research. *Psychological Bulletin*, 118, 3-34.
- Kelley, H. H., & Stahelski, A. J. (1970). Social interaction basis of cooperators' and competitor's beliefs about others. *Journal of Personality and Social Psychology*, 16, 66-91.
- Kenny, D. A. (1996). Models of non-independence in dyadic research. Journal of Social and Personal Relationships, 13, 279-294.
- Kurdek, L. A. (1998). The nature and predictors of the trajectory of change in marital quality over the first 4 years of marriage for first-married husbands and wives. *Journal of Family Psychology*, 12, 494-510.
- Levinger, G. (1983). Development and change. In H. H. Kelley, E. Berscheid, A. Christensen, J. H. Harvey, T. L. Huston, G. Levinger, et al. (Eds.), *Close relationships* (pp. 315-359). San Francisco: Freeman.
- Martz, J. M., Verette, J., Arriaga, X. B., Slovik, L. F., Cox, C. L., & Rusbult, C. E. (1998). Positive illusion in close relationships. *Personal Relationships*, 5, 159-181.
- McCrae, R. R., & Costa, P. T., Jr. (1987). Validation of the five-factor model of personality across instruments and observers. *Journal of Personality and Social Psychology*, 52, 81-90.
- Miller, P. J. É., Caughlin, J. P., & Huston, T. L. (2003). Trait expressiveness and marital satisfaction: The role of idealization processes. *Journal of Marriage and Family*, 65, 978-995.
- Murray, S. L. (1999). The quest for conviction: Motivated cognition in romantic relationships. *Psychological Inquiry*, 10, 23-35.
- Murray, S. L., & Holmes, J. G. (1993). Seeing virtues in faults: Negativity and the transformation of interpersonal narratives in close relationships. *Journal of Personality and Social Psychology*, 65, 707-722.
- Murray, S. L., & Holmes, J. G. (1994). Storytelling in close relationships: The construction of confidence. *Personality and Social Psychology Bulletin*, 20, 650-663.
- Murray, S. L., Holmes, J. G., Dolderman, D., & Griffin, D. W. (2000). What the motivated mind sees: Comparing friends' perspectives to married partner's views of each other. *Journal of Experimental Social Psychology*, 36, 600-620.
- Murray, S. L., Holmes, J. G., & Griffin, D. W. (1996a). The benefits of positive illusions: Idealization and the construction of satisfaction in close relationships. *Journal of Personality and Social Psychology*, 70, 79-98.
- Murray, S. L., Holmes, J. G., & Griffin, D. W. (1996b). The self-fulfilling nature of positive illusions in romantic relationships: Love is not blind, but prescient. *Journal of Personality and Social Psychology*, 71, 1155-1180.
- Neff, L. A., & Karney, B. R. (2002). Judgments of a relationship partner: Specific accuracy but global enhancement. *Journal of Personality*, 70, 1079-1112.

- Neff, L. A., & Karney, B. R. (2005). To know you is to love you: The implications of global adoration and specific accuracy for marital relationships. *Journal of Personality and Social Psychology*, 88, 480-497.
- Paulhaus, D. L. (1998). Interpersonal and intrapsychic adaptiveness of trait self-enhancement: A mixed blessing? *Journal of Personality* and Social Psychology, 74, 1197-1208.
- Peseran, M. H., & Smith, R. J. (1994). A generalized R² criterion for regression models estimated by the instrumental variables method. *Econometrica*, 62, 705-710.
- Robins, E. J. (1985). A theoretical and empirical investigation of compatibility testing in marital choice. Unpublished doctoral dissertation, Pennsylvania State University, University Park.
- Robins, R. W., & Beer, J. S. (2001). Positive illusions about the self: Short-term benefits and long-term costs. *Journal of Personality and Social Psychology*, 80, 340-352.
- Robins, R. W., & John, O. P. (1997). Effects of visual perspective and narcissism on self-perception: Is seeing believing? *Psychological Science*, 8, 37-42.
- Rubin, D. B. (1987). Multiple imputation for nonresponse in surveys. New York: John Wiley.
- Rusbult, C. E., Van Lange, P. A. M., Wildschut, T., Yovetich, N. A., & Verette, J. (2000). Perceived superiority in close relationships. *Journal of Personality and Social Psychology*, 79, 512-545.
- Sawa, T. (1978). Information criteria for discriminating among alternative regression models. *Econometrica*, 46, 1273-1282.
- Snyder, M., Tanke, E. E., & Berscheid, E. (1977). Social perception and interpersonal behavior: On the self-fulfilling nature of social stereotypes. *Journal of Personality and Social Psychology*, 35, 656-666.

- Swann, W. B., Jr., De La Ronde, C., & Hixon, J. G. (1994). Authenticity and positivity strivings in marriage and courtship. *Journal of Personality and Social Psychology*, 66, 857-868.
- Swann, W. B., Jr., Hixon, J. G., & De La Ronde, C. (1992). Embracing the bitter "truth": Negative self-concepts and marital commitment. *Psychological Science*, 3, 118-121.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103, 193-210.
- Van Lange, P. A. M., & Rusbult, C. E. (1995). My relationship is better than—and not as bad as—yours is: The perception of superiority in close relationships. *Personality and Social Psychology Bulletin*, 21, 32-44.
- Waller, W. (1938). The family: A dynamic interpretation. New York: Cordon.
- 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.
- Weiss, R. L., & Heyman, R. E. (1990). Observation of marital interaction. In F. Fincham & T. Bradbury (Eds.), *The psychology of marriage: Basic issues and application* (pp. 87-118). New York: Guilford.
- Wills, T., Weiss, R., & Patterson, G. (1974). A behavioral analysis of the determinants of marital satisfaction. *Journal of Counseling and Clinical Psychology*, 42, 802-811.

Received January 23, 2006 Revision accepted June 13, 2006