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Implicit Self-Evaluations Predict Changes in Implicit Partner Evaluations

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Abstract

Do people who feel good about themselves have better relations with others? Although the notion that they do is central to both classic and modern theories, there is little strong evidence to support it. We argue that one reason for the lack of evidence is that prior research has relied exclusively on explicit measures of self- and relationship evaluations. The current longitudinal study of newlywed couples used explicit measures of self-, relationship, and partner evaluations as well as implicit measures of self- and partner evaluations to examine the link between self-evaluations and changes in relationship evaluations over the first three years of marriage. Whereas explicit self-evaluations were unrelated to changes in all interpersonal measures, implicit self-evaluations positively predicted changes in implicit partner evaluations. This finding joins others in highlighting the importance of automatic processes and implicit measures to the study of close interpersonal relationships.

Keywords

implicit measures; self-esteem; automatic processes; marriage; romantic relationships; IAT

You must love yourself before you love another.

—Buddha

The idea that having positive self-evaluations is a prerequisite for having meaningful and fulfilling interpersonal relationships has been a point of discussion for centuries. Not only is this idea a component of Buddha's influential philosophy, as reflected in the opening quote, writers like Kant, Calvin, and Nietzsche all expounded on the connection between self-love and love of others. This idea is also evident in various classic psychological theories. A premise of several psychoanalytic and humanistic perspectives (Fromm, 1939; Jung 1925;

Authorship Statement

James K. McNulty developed the study hypotheses, oversaw data collection, conducted the data analyses, and wrote the first draft of the manuscript. Levi R. Baker contributed significantly to data collection, helped conceptualize the theoretical framing, and contributed to the writing. Michael A. Olson designed the implicit measures and contributed to the writing.

Maslow, 1970; Rogers, 1951), for example, is that the failure to fully accept one's self is the root of numerous, if not most, psychological problems, including interpersonal ones.

It is thus not surprising that self-evaluations play an important role in several modern theories of close relationships (e.g., Aron & Aron, 1996; Murray, Holmes, Collins, 2006). According to Murray and colleagues' (2006) risk-regulation model, for example, people project their self-evaluations onto their partners, which shapes important downstream interpersonal processes. Whereas people with more positive self-evaluations trust that their partners also evaluate them positively and thus feel secure and ultimately behave constructively in their relationships, people with less positive self-evaluations doubt their partner's regard and thus feel less secure and behave less constructively.

Nevertheless, although numerous studies support the specific processes outlined by these models (e.g., Aron & Aron, 1996; Murray, Holmes & Griffin, 2000; Murray, Rose, Bellavia, Holmes, Kusche, 2002), there is no strong evidence that positive self-evaluations are actually directly linked to subsequent positive relationship evaluations. Several studies have documented positive cross-sectional associations between self-esteem and relationship satisfaction (e.g., Murray, Homes, & Griffin, 1996; Murray et al., 2000; Shackelford, 2001), but the causal direction of cross-sectional associations involving self-esteem is notoriously ambiguous (Baumeister, Campbell, Krueger, & Vohs, 2003). Indeed, several theoretical perspectives can be used to argue that such cross-sectional associations emerge because positive relationship evaluations cause higher levels of self-esteem (e.g., Leary, Tambor, Terdal, & Downs, 1995; Shackelford, 2001). Further, although self-esteem has been negatively associated with relationship dissolution in one study of dating couples (Hendrick, Hendrick, & Adler, 1988) and positively associated with changes in relationship satisfaction in another (Murray et al., 2000), other studies raise questions about the long-term interpersonal effects of self-esteem. For example, Fincham and Bradbury (1993) reported that a positive association between initial self-esteem and subsequent relationship satisfaction was reduced to non-significance once depression was controlled. Further, a meta-analysis of several longitudinal studies of marriage (Karney & Bradbury, 1995) documented a rather small association between self-esteem and changes in marital satisfaction.

Why has self-esteem failed to reliably predict subsequent relationship evaluations in prior longitudinal research? One reason may be that prior studies have relied exclusively on self-report measures of self-esteem. As several authors (e.g., Jordan, Spencer, Zanna, Hoshino-Browne, & Correll, 2003; Zeigler-Hill, 2006) have pointed out, self-report measures of self-esteem are vulnerable to self-presentational biases that may allow other personality and motivational factors, such as narcissism, to masquerade as high self-esteem. Given that such defensively high reports of self-esteem negatively predict relationship outcomes (e.g., Campbell, Foster, & Finkel, 2002), any variance in self-reported self-esteem reflective of such defensive self-esteem may mask any benefits of authentic positive self-evaluations for relationship evaluations.

There are both empirical and conceptual reasons to believe that *implicit* measures of self-evaluation may better capture the extent to which self-evaluations predict interpersonal

evaluations. From an empirical standpoint, implicit measures of self-evaluation are less sensitive to the self-presentational biases that may contaminate self-report self-evaluations (Olson, Fazio, & Hermann, 2007). Indeed, some research demonstrates that implicit self-evaluations predict behavior better than do explicit self-evaluations (Spalding & Hardin, 1999). Further, from a conceptual standpoint, implicit measures, particularly those based on automatic activation effects (e.g., Fazio, Sanbonmatsu, Powell, & Kardes, 1986), are more sensitive to the automatic, affective components of people's self-evaluations (Fazio & Olson, 2003), and several studies suggest that it is these automatic aspects of self-evaluation that drive interpersonal processes and evaluations (Gramzow & Gaertner, 2005; Murray, Derrick, Leder, & Holmes, 2008). Indeed, Fazio's (1990) MODE model posits that people's automatic evaluations will predict their behaviors when their motivation and/or ability to control their impulses is low. Certainly over the course of a long-term relationship, people will more than occasionally lack the motivation and/or self-regulatory resources to control such spontaneous responses (see Buck & Neff, 2012; Bushman, DeWall, Pond, & Hanus, in press).

For similar reasons, implicit measures of relationship evaluation may better capture the extent to which self-evaluations predict relationship evaluations as well. Like explicitly-measured self-evaluations, explicitly-measured relationship evaluations are susceptible to perceptual and motivational biases (McNulty & Karney, 2001). And like implicitly-measured self-evaluations, implicitly-measured relationship evaluations appear to be less susceptible to such biases (Scinta & Gable, 2007). For this reason, implicit measures of relationship evaluation may better track the processes that unfold over the course of a relationship. Indeed, Murray, Holmes, and Pinkus (2010) demonstrated that the behaviors partners exchanged early in their marriages predicted spouses' automatic but not explicit evaluations of the relationship four years later. Importantly, these automatic evaluations can eventually disrupt partners' more conscious explicit evaluations of the relationship (e.g., McNulty, Olson, Meltzer, & Shaffer, 2013; Murray et al., 2011). For example, McNulty et al. (2013) demonstrated that although spouses' implicitly-measured partner evaluations were unrelated to their explicit reports of marital satisfaction at the beginning of marriage, they better forecasted the trajectory of marital satisfaction over the first four years of marriage.

In sum, several theories suggest that positive self-evaluations should positively predict relationship evaluations. Yet, research using explicit measures has not demonstrated consistent associations between self-evaluations and subsequent relationship evaluations. Given that this prior research has relied exclusively on explicit measures that may be contaminated by self-presentational concerns and other motivated biases, and given that implicit measures may better reflect the processes that drive such an association, we used implicit measures of self- and relationship evaluations to test the prediction that self-evaluations positively predict subsequent relationship evaluations.

Overview of the Current Study

Just after their wedding, a sample of newlywed couples completed one explicit self-report measure of their self-evaluations and two explicit self-report measures of their interpersonal evaluations—one of their relationship and the other of their partner. These couples also

attended a laboratory session at which they completed a priming measure of implicit self- and partner evaluations. Three years later, a portion of these couples once again completed the same self-report and implicit measures. Analyses examined the extent to which the explicit and implicit measures of self-evaluation predicted changes in the explicit and implicit interpersonal evaluations.

Participants

The current analyses targeted 112 newlyweds (56 couples) who were participating in the broader longitudinal study of 270 newlyweds (135 newlywed couples). The broader study was limited to 270 individuals because they were those who completed the Baseline portion of the study within the one-year recruitment timeframe. The current analyses were limited to 112 of these newlyweds because they were the only ones who completed the laboratory portion of the sixth wave of assessment, which was the only assessment that included a second measurement of implicit evaluations. The couples involved in the broader study who did not complete this wave of measurement either (a) had divorced ($n = 11$), (b) had discontinued their participation ($n = 8$), (c) were unable to schedule a laboratory session but completed questionnaires through the mail ($n = 17$) (e.g., had moved from the study location), or (d) did not respond to the solicitation ($n = 43$). Importantly, the individuals who participated at this wave of data collection did not differ from those who did not participate on any of the primary Baseline measures examined here.

At Baseline, the husbands examined here were 26.5 ($SD = 4.6$) years old and had completed 16.8 ($SD = 2.4$) years of education. Seventy percent were employed full time and 30% were full time students. The median of the income range reported by these husbands was \$25,001 to \$30,000 per year. Wives were 24.4 ($SD = 3.8$) years old and had completed 19.4 ($SD = 2.1$) years of education. Fifty-four percent were employed full time and 32% were full time students. The median of the income range reported by these wives was \$10,001 to \$15,000 per year. Eighty-eight percent of husbands and 91% of wives identified as Caucasian.

Procedure

At baseline, all 135 couples attended a laboratory session. Before that session, they were mailed a packet of questionnaires to complete at home and bring with them to their appointment. This packet included a consent form approved by the local human subjects review board, self-report measures of self-esteem, marital satisfaction, partner evaluations, and various individual difference variables that served as covariates, as well as a letter instructing participants to complete all questionnaires independently of one another and to bring their completed questionnaires to their upcoming laboratory session. At that session, both members of the couple were photographed and completed implicit measures of self- and partner evaluations. Couples were paid \$80 for participating in this phase of the study.

As part of the broader aims of the study, couples were re-contacted by phone or email every six months and asked to complete various self-report measures. The fifth of these follow-ups, which occurred approximately three years after Baseline, was another laboratory session that resembled the first. Before that session, couples were once again mailed self-report measures of self-esteem, relationship satisfaction, and partner evaluation that they

completed at home. At the session, couples were once again photographed and completed the same implicit measures of self- and partner evaluation. Couples were once again paid \$80 for participating in this phase of the study.¹

Measures

Implicit Measures—We used a priming procedure modeled after Fazio, Jackson, Dunton, and Williams (1995) to implicitly measure individuals' self and partner evaluations, as well as their evaluations of a set of opposite sex strangers (as one of several covariates). Spouses completed three blocks of 48 trials each. In each block, they indicated the valence of 8 positive and 8 negative words that appeared in random order. The first block was an orientation block during which spouses responded to the stimulus words after being exposed to a neutral prime (a row of asterisks) that appeared for 315 milliseconds before each word. The second and third blocks served as the measurement trials during which spouses responded to the same words but this time those words were preceded by a 300-millisecond prime of a photo. Three types of photos were used: (a) photos of the partner, (b) photos of the self, or (c) photos of attractive opposite-sex strangers. Four orientations of photos were used in each trial: (a) a frontal view of the face, (b) a profile view of the face, (c) a frontal view of the entire body while standing, and (d) a frontal view of the entire body while sitting. During each of these test trials, each photo preceded each word for 300 milliseconds in random order. Participants were asked to indicate as quickly as possible whether the stimulus word was positive or negative by pressing a designated key on the computer keyboard. The time it took them to respond was recorded.

An index of spouses' automatic attitudes toward themselves [their partners/attractive opposite sex strangers] was formed by subtracting the average time it took them to respond to the positive words after being exposed to pictures of themselves [their partner/attractive opposite sex strangers] from the time it took them to respond to the negative words after being exposed to pictures of themselves [their partner/attractive opposite sex strangers]. One wife at Baseline and one wife at the three-year follow-up experienced equipment failures that prevented data collection. Of the remaining 110 individuals, two husbands and three wives at Baseline and one additional husband at the three-year follow-up made errors on 20% or more of the trials (incorrectly indicated the valence of the words) and were thus excluded from analyses, leaving a total of 104 individuals for all analyses.

Explicit Measures—We assessed spouses' explicit self-evaluations with the 10-item Rosenberg (1965) *Self-Esteem Scale*. At baseline, husbands' $\alpha = .80$, wives' $\alpha = .84$; at the three-year follow-up, husbands' $\alpha = .88$, wives' $\alpha = .83$. We assessed spouses' explicit interpersonal evaluations with two different measures, one that was a general measure of relationship satisfaction and the second was a measure of participants' evaluations of their partner (to offer a more direct comparison to the implicit measure of partner evaluation). The relationship satisfaction measure was the *Quality Marriage Index* (Norton, 1983). This instrument asked spouses to indicate their level of agreement with 5 items that describe the

¹The implicit measure of partner evaluation completed at Baseline was used to predict the trajectory of explicit measure of marital satisfaction in McNulty et al. (2013). This article uniquely describes the association between Baseline self-evaluations and the changes in those partner evaluations that occurred over three years.

general quality of the marriage (e.g., “We have a good marriage”) using a 7-point scale (1 = Very Strong Disagreement, 7 = Very Strong Agreement), and to rate the overall quality of the marriage on a 10-point scale (1 = Very Unhappy, 10 = Perfectly Happy). Thus, scores could range from 6 to 45, with higher scores reflecting more marital satisfaction. At baseline, husbands’ $\alpha = .92$, wives’ $\alpha = .88$; at the three-year follow-up, husbands’ $\alpha = .95$, wives’ $\alpha = .94$. The measure of partner evaluation was a 36-item version of the interpersonal qualities scale (see Murray et al., 1996). Spouses reported how satisfied they were with the extent to which their partner fulfilled 36 desirable standards (e.g., “patient,” “understanding,” “responsive to your needs”) on a scale from 1 = not at all to 7 = completely. At baseline, husbands’ $\alpha = .93$, wives’ $\alpha = .91$; at the three-year follow-up, husbands’ $\alpha = .96$, wives’ $\alpha = .95$.

Covariates—Several potential confounds were assessed at Baseline. Attachment insecurity was assessed using the 36-item *Experiences in Close Relationships Scale* (Brennan, Clark, & Shaver, 1998) (for anxiety, husbands’ $\alpha = .91$, wives’ $\alpha = .92$; for avoidance, husbands’ $\alpha = .92$, wives’ $\alpha = .94$). Personality was assessed using the 50-item *Big Five Personality Inventory* short-form from the International Personality Item Pool (Goldberg, 1999) (for husbands’ extraversion, $\alpha = .90$, for husbands’ agreeableness, $\alpha = .78$; for husbands’ conscientiousness, $\alpha = .80$; for husbands’ neuroticism, $\alpha = .77$; for husbands’ openness, $\alpha = .77$; for wives’ extraversion, $\alpha = .91$, for wives’ agreeableness, $\alpha = .76$; for wives’ conscientiousness, $\alpha = .88$; for wives’ neuroticism, $\alpha = .72$; for wives’ openness, $\alpha = .72$). Depressive symptoms were assessed with the *Beck Depression Inventory* (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961).

Results

Preliminary Analyses

Correlations among the variables assessed at Baseline appear in Table 1. A few of these are worth highlighting. First, not surprisingly, explicit marital satisfaction was positively correlated with the explicit partner evaluations among both husbands and wives. Second, also among both husbands and wives, neither explicit interpersonal evaluation was significantly correlated with the implicit partner evaluations. Second, consistent with most other research (e.g., Bosson et al., 2000), explicit self-evaluations were not significantly correlated with implicit self-evaluations. Third, among husbands, explicit self-evaluations were significantly positively correlated with explicit marital satisfaction; among wives, explicit self-evaluations were significantly positively correlated with explicit partner evaluations. Fourth, among wives, implicit self-evaluations were significantly positively correlated with implicit partner evaluations. Though in the same direction, this correlation did not reach significance among husbands. Finally, husbands and wives’ reports of explicit marital satisfaction were positively correlated with one another.

Change in explicit and implicit self-and relationship evaluations

These data provided the opportunity to conduct two novel preliminary analyses. First, they allowed us to examine whether individuals demonstrated systematic change in their implicit evaluations. Although we know from previous research that explicit self-evaluations

increase over time (e.g., Chung et al., 2014) whereas explicit marital satisfaction decreases over time (e.g., McNulty, O'Mara, & Karney, 2008), no previous research has examined changes over time in the aspects of self or partner evaluations captured by implicit measures. We examined change in explicit and implicit evaluations of self- and relationship evaluations using multilevel models that regressed the raw difference formed by subtracting individuals' three-year follow-up scores from their Baseline scores onto a randomly varying intercept. Estimating change in multilevel models with random intercepts accounted for the non-independence of couples' data. Given that any change in the implicit measure could have been due to change in spouses' automatic reactions to the positive and/or negative words, rather than change in their automatic reactions to themselves or their partner, we controlled for spouses' Baseline and three-year follow-up reaction times to the positive and negative words during the orientation block that provided the neutral prime (i.e., row of asterisks) before the words.

The results, as well as the means on each measure at each assessment period, are reported in the first six columns of data in Table 2. Consistent with prior research, explicit reports on both measures of relationship satisfaction became more negative over time whereas explicit self-esteem became more positive over time. But more novel are the changes in implicit evaluations: Implicit evaluations of both the self and the partner became more negative over time, as indicated by a faster response to negative versus positive words after seeing a photo of the self or partner controlling for participants' reaction times to the positive and negative words themselves.

Second, these data also offered the opportunity to examine the test-retest reliability of the associative priming measure, an extensively used measure of implicit evaluations (Fazio & Olson, 2003) that has been criticized for its reliability (Cunningham, Preacher, & Banaji, 2001) but has never been evaluated over as substantial period of time as three years. To estimate such correlations, as well as correlations between the Baseline and three-year follow-up reports on the explicit measures (for comparison purposes), we regressed standardized versions of the three-year follow-up scores of each measure onto standardized versions of the corresponding Baseline measure in a multilevel model that once again allowed for a randomly varying intercept. For the implicit measures, we once again controlled for any changes in spouses' reaction times to the positive and negative words alone by adding to the model their reaction times to these words in the orientation blocks that occurred at Baseline and the three-year follow-up. Results are presented in the last column of Table 2. As can be seen, despite the fact that reports on all measures changed systematically over time, the correlations between the Baseline and three-year follow-up scores were significantly positive for all three explicit measures and for the implicit partner evaluation measure. The test-retest correlation of the implicit self-evaluation measure did not reach significance.

Do explicit self-evaluations predict changes in interpersonal evaluations?

The primary analyses examined the extent to which each measure of Baseline self-evaluation predicted changes in each measure of interpersonal evaluation. We first examined whether the explicit measure of self-evaluation predicted changes in either the explicit or

implicit interpersonal evaluations. Specifically, we conducted three multilevel analyses in which each of the three-year follow-up interpersonal evaluations (two explicit and one implicit) was separately regressed onto the corresponding Baseline interpersonal evaluation and spouses' Baseline explicit self-esteem score. Each equation included a randomly varying intercept. Results are shown in the top portion of Table 3. As can be seen, the explicit measure of self-esteem was unrelated to changes in all three measures of interpersonal evaluation.

Do implicit self-evaluations predict changes in interpersonal evaluations?

Next, we examined whether the implicit measure of self-evaluation predicted changes in any of the interpersonal evaluations. This time, we regressed each three-year follow-up interpersonal evaluation onto the corresponding Baseline interpersonal evaluation and the Baseline implicit self-evaluation score. Again, each equation included a randomly varying intercept. Results are shown in the bottom portion of Table 3. As can be seen, whereas the implicit self-evaluation was unrelated to changes in both explicit interpersonal evaluations, it was positively associated with changes in the implicit partner evaluation. That is, spouses who felt more positively about themselves according to the implicit measure at Baseline experienced less decline in their implicit evaluations of their partner over the first three years of marriage. A subsequent test of the implicit self-evaluation X sex interaction revealed that this association did not differ across men and women, $B = .02$, $SE = .27$, $t(44) = 0.09$, $p = .930$, $CI_{95\%} = (-.52, .56)$, *Effect size* $r = .01$, and remained significant (and was even stronger) controlling for (a) sex, (b) the implicit self-evaluation score at the three-year follow-up, (c) Baseline and three-year follow-up explicit self-esteem, (d) Baseline and three-year follow-up orientation block reaction times, (e) Baseline and three-year follow-up explicit interpersonal evaluations, (f) Baseline and three-year follow-up implicit evaluations of opposite sex strangers, (g) attachment anxiety and avoidance at Baseline, (h) each of the Big Five at Baseline, and (i) depressive symptoms at Baseline, $B = .30$, $SE = .10$, $t(24) = 3.00$, $p = .006$, $CI_{95\%} = (.10, .50)$, *Effect size* $r = .52$.

General Discussion

The current longitudinal study provided long-awaited evidence that self-evaluations positively predict relationship evaluations; however, this association only emerged using implicit measures of self- and partner evaluations. Specifically, newlywed spouses who demonstrated more positive automatic reactions to 300 millisecond primes of photos of themselves just after their wedding demonstrated less decline in their positive automatic reactions to 300 millisecond primes of photos of their partners three years later. This association did not vary across husbands and wives and held controlling for numerous covariates, including methodological aspects of the implicit measure and potential confounds like neuroticism and depression. Explicit self-esteem did not predict changes in explicit or implicit interpersonal evaluations.

These findings have several theoretical and empirical implications. Most importantly, they join others in highlighting the importance of automatic processes for relationships (McNulty et al., 2013; Murray et al., 2008; Murray et al., 2011), a particularly important contribution given recent challenges to the theoretical and practical importance of automatic social

processes (e.g., Arkes & Tetlock, 2004; Doyen, Klein, Pichon, & Cleeremans, 2012). Although individuals' automatically-activated self-evaluations were unrelated to their explicit self-evaluations, those automatically-activated self-evaluations were related to the development of their automatically-activated partner evaluations over three years. Addressing the significance of such automatically-activated partner evaluations, McNulty et al., 2013 reported that spouses' initial automatic partner evaluations, although unrelated to their explicit marital satisfaction at the start of marriage, predicted the trajectory of their marital satisfaction over the first four years of marriage whereas their initial explicit evaluations did not.

Additionally, these findings provide evidence for an association that has been debated both within and outside psychology for centuries; newlywed spouses' implicit self-evaluations appeared to serve a beneficial role in their interpersonal relationships. Not only does this finding support an old and popular notion, it is consistent with several theories of close relationships, including Murray and colleagues' (2006) risk regulation model and Aron and Aron's (1986) self-expansion theory. Nevertheless, the specific mechanism of this effect remains unclear. According to the risk regulation model, it is likely that spouses' more positive self-evaluations provided them with the interpersonal confidence and trust necessary to behave in ways that promote intimacy and strengthen their relationships. Indeed, Fazio's (1990) MODE model suggests that automatic attitudes, such as these automatic attitudes toward one's self, can shape the types of spontaneous behaviors likely to occur on a day-to-day basis over the course of a long-term relationship (see Murray et al., 2011). Of course, it is also possible that the association between self and partner evaluations emerged independent of behavior. Indeed, Aron and Aron's (1996) self-expansion model suggests people include their close relationship partners in their perceptions of themselves—as such, for more cognitive reasons, people who view themselves more positively may evaluate their partners more positively simply because those partners are part of their positive self-evaluations. Future research is necessary to identify the exact mechanism of the effects that emerged here.

Finally, empirically, these findings provide some evidence of the reliability and validity of the priming measure used here as a measure of both self- and partner evaluation. Although the measure has been used largely to assess racial prejudice (see Fazio et al., 1995), it has been extended to many other domains, including self-evaluations (see Bosson et al., 2000) and partner evaluation (McNulty et al., 2013; Scinta & Gable, 2007). The current study validates priming as a measure of these and other evaluations in at least two ways. First, addressing past criticisms (e.g., Cunningham et al., 2001), it suggests that the measure has some test-retest reliability, at least with regard to measuring partner evaluations. It is worth noting that although the test-retest reliability score was not as high as may be desired, the fact that the pre and post scores were correlated at all could be seen as impressive, given the length of the interval between assessments and the potentially unstable nature of the attitude. Second, the fact that the association between self and partner evaluations emerged implicitly but not explicitly demonstrates that implicit measures can uncover both theoretically and practically important associations that explicit measures may miss.

Several strengths and limitations of this research should be considered when drawing conclusions. Regarding strengths, the research was longitudinal, helping assuage concerns regarding the potential causal direction of this association. Further, we controlled for numerous third variables that could account for the association, helping to rule out the possibility that self-evaluations simply reflect some other underlying variable that affects evaluations of the partner. Regarding limitations, however, the results are nevertheless correlational and thus any causal conclusions should be drawn with caution. It is possible that variables not assessed and controlled here accounted for the associations that emerged.

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Table 1

Correlations Among Variables at Baseline

	(1)	(2)	(3)	(4)	(5)
(1) Implicit Self-Evaluation	.13	-.16	.33*	-.13	.02
(2) Explicit Self-Evaluation	-.00	.13	-.20	.03	.28*
(3) Implicit Partner Evaluation	.17	.01	.16	.05	.10
(4) Explicit Marital Satisfaction	-.17	.40**	-.08	.47**	.55**
(5) Explicit Partner Evaluation	.13	.23	-.04	.53**	.19

Note. Correlations for husbands appear below the diagonal, correlations for wives appear above the diagonal, and correlations between partners appear on the diagonal in bold. Correlations involving the implicit measures are partial correlations that control for participants' reaction times to the positive and negative words during the orientation block (i.e., without the photo primes).

* $p < .05$,

** $p < .01$

Table 2

Change in and Test-Retest Correlations of Explicit and Implicit Evaluations

Measure	Baseline	Three-year follow-up	Change	CI	<i>t</i>	<i>d</i>	<i>r</i>
Explicit Marital Satisfaction	42.18 (4.20)	39.00 (6.26)	-3.18	(-4.38, -1.98)	-5.76**	1.37	.44**
Explicit Partner Evaluation	6.11 (0.58)	5.90 (0.80)	-0.21	(-0.34, -0.08)	-3.20**	.86	.58**
Implicit Partner-Evaluation	49.24 (74.74)	35.67 (62.83)	-16.74	(-33.06, -0.42)	-2.05*	.55	.20*
Explicit Self-Esteem	3.35 (0.45)	3.44 (0.49)	0.09	(0.001, 0.186)	2.01*	1.67	.54**
Implicit Self-Evaluation	61.99 (80.01)	35.67 (62.83)	-26.32	(-44.30, -8.34)	-2.93*	.79	.06

Note:

* $p < .05$,

**

 $p < .01$; CI = 95% Confidence Interval

Table 3

Do Self-Evaluations Predict Changes in Relationship Evaluations?

	<i>B</i>	<i>SE</i>	<i>CI</i>	<i>Effect size r</i>
Explicit self-esteem predicting changes in interpersonal evaluations				
Predicting Three-year follow-up Explicit Marital Satisfaction				
Baseline Explicit Marital Satisfaction	.44**	.06	(.32, .56)	.74
Baseline Explicit Self-Esteem	.01	.09	(-.17, .19)	.02
Predicting Three-year follow-up Explicit Partner Evaluation				
Baseline Explicit Partner Evaluation	.55**	.09	(.37, .73)	.65
Baseline Explicit Self-Esteem	.03	.09	(-.15, .21)	.05
Predicting Three-year follow-up Implicit Partner Evaluation				
Baseline Implicit Partner Evaluation	.20	.12	(-.04, .34)	.25
Baseline Explicit Self-Esteem	.08	.11	(-.14, .30)	.11
Implicit self-evaluations predicting changes in interpersonal evaluations				
Predicting Three-year follow-up Explicit Marital Satisfaction				
Baseline Explicit Marital Satisfaction	.44**	.06	(.32, .56)	.73
Baseline Implicit Self-Esteem	-.02	.06	(-.14, .10)	.05
Predicting Three-year follow-up Explicit Partner Evaluation				
Baseline Explicit Partner Evaluation	.56**	.09	(.38, .74)	.67
Baseline Implicit Self-Esteem	-.02	.05	(-.12, .08)	.06
Predicting Three-year follow-up Implicit Partner Evaluation				
Baseline Implicit Partner Evaluation	.11	.10	(-.09, .31)	.16
Baseline Implicit Self-Esteem	.26*	.10	(.06, .46)	.35

Note:

*
 $p < .05$,**
 $p < .01$; *CI* = 95% Confidence Interval