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Assessing the Seeds of Relationship Decay : Using Implicit Evaluations to Detect the Early Stages of Disillusionment

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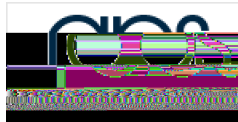
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e-mail invitations for each follow-up survey. (These e-mails consisted of an initial invitation and up to two additional reminder e-mails for participants who did not complete the follow-up assessment within 1 week after the invitation.) These surveys occurred at 1, 2, 3, 4, 6, and 12 months for Study 1 and at 3, 6, 9, and 12 months for Study 2. They assessed the stability (i.e., intact vs. broken up) of participants' romantic relationships. Each study was conducted separately, but both were conducted online.

In Study 1, 78 respondents provided e-mail addresses, 53 completed at least one follow-up survey, and 8 reported that their relationship had ended. In Study 2, 70 respondents provided e-mail addresses, 63 completed at least one follow-up survey, and 11 reported that their relationship had ended. Attrition analyses in each study examined differences in age, education, relationship length, hostile conflict, relationship satisfaction, and partner-GNAT performance. Participants who completed the follow-up surveys did not differ on most of these constructs, but they tended to have slightly higher levels of education in Study 1, $F(1, 119) = 10.44, p < .003$, and performed slightly better on the partner-bad trials of the partner-GNAT in Study 2, $F(1, 98) = 5.93, p < .02$.

Participants

Participants were at least 18 years old and currently in a romantic relationship. One hundred sixty-nine participants initially responded to Study 1, and 128 participants initially responded to Study 2. Removing respondents who failed to complete the GNAT, who demonstrated markedly inattentive responding on the self-report measures, or who were identified as multivariate outliers left a sample of 122 respondents (87% female and 13% male; mean age = 25 years; 79% Caucasian and 21% other) in Study 1, and 100 respondents (86% female and 14% male; mean age = 23 years; 77% Caucasian and 23% other) in Study 2. In Study 1, 29% of the subjects were married (for an average of 3.3 years), 13% were engaged (and had been together for an average of 2.7 years), and 58% were in committed, exclusive dating relationships (for an average of 2.4 years). In Study 2, 10% of the subjects were married (for an average of 3.6 years), 12% were engaged (and had been together for an average of 3.2 years), and 78% were in committed, exclusive dating relationships (for an average of 1.8 years).

The GNAT

The GNAT is a word-sorting task in which stimuli are presented one at a time in random order. At the start of the survey, participants responded to basic demographic questions. They were then taken to a new Web page that presented the GNAT via a Macromedia Flash program that was written for this project. To reduce distraction, we set the background of this page to black and presented instructions and stimuli in light colors and in large fonts (20–40 point). For each block of trials,

specific types of stimuli (e.g., good words; see Table S1 in the Supplemental Material available online) were assigned as targets; the remaining stimuli served as distractors. Participants were instructed to press the space bar when a target appeared and to refrain from pressing the space bar when a distractor appeared. Stimuli were presented for 600 ms each, with an intertrial interval of 400 ms. After each trial, a green *O* (for a correct response) or a red *X* (for an incorrect response) flashed on the screen for 100 ms.

Before the start of the task, participants were asked to provide three different stimuli representing their partners (first name, pet name, nickname or distinctive characteristic). To maintain comparable levels of exposure and habituation, we selected three positive and three negative words with similar word-frequency norms (Zeno, Ivens, Millard, & Duvvuri, 1995) from lists of good and bad words used for other word-sorting tasks (Greenwald et al., 1998). We chose eight additional positive and eight additional negative words from Greenwald et al. (1998) for two practice trial blocks. In Study 1, the good and bad words were chosen to be generic (e.g., *peace, vacation, gift* vs. ,

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satisfaction was also assessed with the Marital Adjustment Test (MAT; Locke & Wallace, 1959), a 15-item measure of satisfaction. Ratings were summed using the original weighted scoring system; higher scores indicated higher satisfaction, and the scale demonstrated reasonable internal consistency (Cronbach's $\alpha = .76$).

Hostile conflict. The 15-item Conflict subscale of the Marital Coping Inventory (MCI-C; Bowman, 1990) and the 12-item Aversive Interaction Scale (AIS; Rodriguez & Rogge, 2010) were used to assess hostile and attacking relationship conflict in Studies 1 and 2, respectively. Items were rated on 5-point (MCI-C) or 8-point (AIS) Likert scales, and ratings were summed; higher scores indicated higher levels of hostile conflict, and both the MCI-C and the AIS demonstrated excellent internal consistency (Cronbach's $\alpha = .93$ and $.92$ in Studies 1 and 2, respectively).

Neuroticism. We used the 23-item Neuroticism subscale of the Eysenck Personality Questionnaire (EPQ-N; Eysenck & Eysenck, 1975) to assess trait negativity in both studies. Ratings were summed, with higher scores indicating higher levels of neuroticism. These items demonstrated good internal consistency (Cronbach's $\alpha = .88$ and $.85$ in Studies 1 and 2, respectively).

Attention and effort. We used the 12-item Attention subscale of the Attention and Effort Scale (AES; Rothbart & Bates, 2002) to assess attention and effort in both studies. Items were rated on a 4-point Likert scale, and ratings were summed; higher scores indicated higher levels of attention and effort. These items demonstrated good internal consistency (Cronbach's $\alpha = .88$ and $.85$ in Studies 1 and 2, respectively).

stimuli paired with positive vs. negative stimuli) in implicit tasks are entered as simultaneous predictors in the same multivariate analysis (Boldero, Rawlings, & Haslam, 2007). After controlling for partner-bad performance, partner-good performance was associated with higher relationship satisfaction, partial $r = .20, p < .04$, and with lower hostile conflict, partial $r = -.21, p < .03$, but the reciprocal partial correlations for partner-bad performance (controlling for partner-good performance) were not significant.

Across multiwave follow-up analyses, we collected 277 points of stability data from 53 subjects. An analysis using only explicit measures revealed that higher initial self-reports of relationship satisfaction were associated with lower risk for breakup over time, $b = -0.05, p < .05$, and this coefficient remained unchanged when the implicit measures were added to the model, $b = -0.05, p < .07$. This result indicates that any predictive variance accounted for by the implicit measures is largely independent of the prediction by explicit measures. As Table 1 shows, the risk of breakup increased over time, $b = 2.21, p < .001$, and better performance on the partner-good trials was associated with lower breakup risk over 12 months, $b = -1.75, p < .002$. Performance on the partner-bad trials was not significantly associated with breakup risk, $b = 0.38, p > .685$.

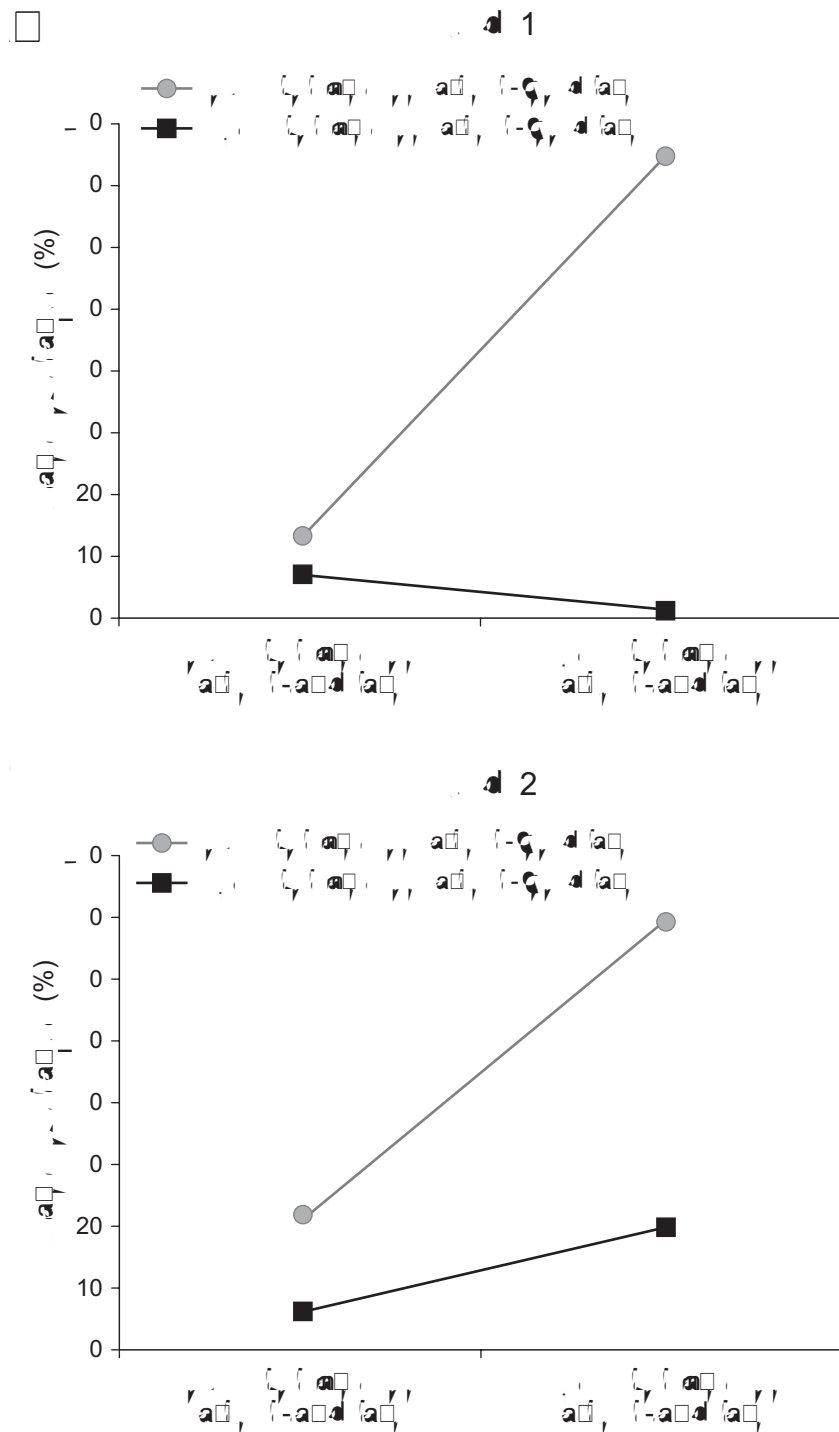
These results were qualified by a significant interaction between partner-good and partner-bad performance, $b = -1.67, p < .048$. As Figure 1a shows, above-average performance (+1 *SD*) on the GNAT partner-good trials was associated with low probabilities (< 10%) of breakup regardless of performance on partner-bad trials (simple slope for partner-bad performance = 0.38, $p > .68$). However, below-average performance (-1 *SD*) on partner-good trials was associated with an increasing probability of breakup as performance on partner-bad trials improved (simple slope for partner-bad performance = 7.06, $p < .10$). Thus, after controlling for other model variables, the results showed that participants with below-average performance in partner-good blocks and above-average performance in partner-bad blocks were most likely to separate over the

next year (a 75% chance, compared with < 14% among other groups).

Study 1 supported our hypotheses about the ability of implicit partner evaluations to predict relationship decay, indicating that global positive and negative implicit evaluations of romantic partners (assessed using generically positive and negative stimuli) are linked to relationship outcomes. However, Neff and Karney (2005) demonstrated that with explicit measures of relationship quality, it is possible to obtain more precise and predictive information by shifting from global questions (e.g., "How satisfied are you with your partner?") to behaviorally specific prompts (e.g., "How well does your partner listen to you?"). Therefore, in Study 2, we sought to increase the sensitivity of the partner-GNAT by shifting the positive and negative stimuli from general words (e.g., *gift, death*) to relationship-specific words (e.g., *accepting, attacking*).

Study 2

Participants again showed better performance in pairing partner stimuli with good words ($d = 2.40$) than with bad words ($d = 1.91$), $t(99) = 4.85, p < .001, d = 0.49$, and the two performance indices were again positively correlated, $r = .45, p < .001$. In



F . I. Percentage chance of relationship breakup within 1 year in (a) Study 1 and (b) Study 2. The estimated chance of breakup is shown for respondents with low (-1. SD) and high (+1. SD) performance on partner-good trials and with low (-1. SD) and high (+1. SD) performance on partner-bad trials.

in the following year, whereas participants with above-average performance in partner-good blocks (+1 SD) had only an 11% chance of breaking up.

Results also demonstrated a trend supporting our hypothesis that better performance in partner-bad blocks would be

associated with greater breakup risk, $b = 0.86, p < .074$. There was a 43% chance that the relationships of participants with above-average performance in partner-bad blocks (+1 SD) would end, but there was only a 12% chance that the relationships of participants with below-average performance in

partner-bad blocks ($-1 SD$) would end. Because Study 2 used relationship-specific constructive and destructive target categories, these results suggest that people develop negative implicit evaluations within specific relationship domains (e.g., conflict behavior) before developing more globally negative implicit evaluations (and are consistent with the findings of Neff and Karney, 2005, regarding global and specific explicit measures).

Although the estimated interactive effect of partner-good and partner-bad performance was in the same direction as in Study 1 (see Fig. 1b), this coefficient was not statistically significant in this sample, $b = -0.22$, $p > .717$.

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These studies indicate that the partner-GNAT predicts relationship instability over 1 year above and beyond the predictions of traditional self-report measures of relationship satisfaction, hostile conflict, and neuroticism. Partner-GNAT performance embodies information about current levels of relationship affect that participants are unaware of or are unable or unwilling to report explicitly. Using the partner-GNAT in relationship assessment may give researchers and practitioners a more complete picture of conscious and subconscious evaluations of relationships.

Our findings indicate that the seeds of relationship decay and dissolution may be evident in implicit affect, which cannot be assessed by traditional explicit measures. One explanation why these feelings cannot be measured explicitly is that, in deteriorating relationships, the negative associations people begin to form about their partner may be too subtle or threatening for them to recognize in themselves or too socially undesirable for them to report to others. Another possible explanation is that these relatively primitive implicit affective associations of a partner with “good” and “bad” may differ in their effects from the more deliberative kinds of judgment about relationship function and activity that are common in explicit measures (e.g., of relationship satisfaction or commitment). In this regard, our implicit and explicit measures were not exactly parallel. The implicit measure drew on associations of the partner with the constructs of good and bad, whereas the explicit measure assessed respondents’ judgments about their relationship. It will be important in future research to determine precisely what is measured by implicit and explicit evaluations of partners. Current theories suggest that “positive illusions”—assessing a partner’s traits more favorably than the partner does—are beneficial for long-term committed relationships and that the shattering of these ideal views (as positive behaviors and feelings fade during day-to-day interactions) contributes to relationship decay (e.g., Huston

Supplemental Material

Additional supporting information may be found at <http://pss.sagepub.com/content/by/supplemental-data>

References

Banaji, M.R., & Greenwald, A.G. (1995). Appendix: Implicit gender stereotyping in judgments of fame. *Journal of Personality and Social Psychology*, *68*, 181–198.

Banse, R., & Kowalick, C. (2007). Implicit attitudes towards romantic partners predict well-being in stressful life conditions: Evidence from the antenatal maternity ward. *International Journal of Psychology*, *42*, 149–157.

Boldero, J.M., Rawlings, D., & Haslam, N. (2007). Convergence between GNAT-assessed implicit and explicit personality. *European Journal of Personality*, *21*, 341–358.

Bowman, M.L. (1990). Coping efforts and marital satisfaction: Measuring marital coping and its correlates. *Journal of Marriage and the Family*, *52*, 463–474.

Caughlin, J.P., & Huston, T.L. (2006). The relationship between implicit and explicit personality and marital coping. *Journal of Personality and Social Psychology*, *91*, 116–125.