Affective Forecasting and Individual Differences: Accuracy for Relational Events and Anxious Attachment

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We examined whether accuracy of affective forecasting for significant life events was moderated by a theoretically relevant individual difference (anxious attachment), with different expected relations to predicted and actual happiness. In 3 studies (2 cross-sectional, 1 longitudinal), participants predicted what their happiness would be after entering or ending a romantic relationship. Consistent with previous research, people were generally inaccurate forecasters. However, inaccuracy for entering a relationship was significantly moderated by anxious attachment. Predictions were largely unrelated to anxious attachment, but actual happiness was negatively related to attachment anxiety. Moderation for breaking up showed a similar but less consistent pattern. These results suggest a failure to account for one’s degree of anxious attachment when making affective forecasts and show how affective forecasting accuracy in important life domains may be moderated by a focally relevant individual difference, with systematically different associations between predicted and actual happiness.

Keywords: affective forecasting, happiness, emotion, individual differences, attachment style

Supplemental materials: http://dx.doi.org/10.1037/a0018701.supp

Thinking about the future can be both crippling and energizing. One may think, for example, that finding that special romantic partner will provide ultimate bliss and eternal happiness. Conversely, the prospect of losing a mate’s love may beget expectations of utter and prolonged despair.

Predicted emotional reactions to possible life events are known as affective forecasts (Gilbert, Pinel, Wilson, Blumberg, & Wheatley, 1998). Although most people know whether an event will evoke a positive or negative response, Gilbert et al. (1998) found evidence for durability bias, in which people overestimate the intensity and duration of their emotional reactions to events; predictions tend to overemphasize the event in question (focalism) and fail to consider the likelihood of mitigating events (immune neglect). For most events, happiness returns to baseline relatively quickly (Diener, Lucas, & Scollon, 2006; Wortman & Silver, 1989). One explanation is that, over time, people adapt to most events, thus diminishing affective responses (affective adaptation; Wilson & Gilbert, 2008).

Attention to person factors has been minimal, with no attention to individual differences of specific relevance to a forecasting domain, or which might affect forecasts and outcomes in systematically different ways. Such individual differences may matter only minimally. Perhaps people are aware of their domain-relevant affective predispositions, making their predictions no more or less accurate. Or, people who characteristically evaluate expected outcomes of life events optimistically or pessimistically may create outcomes (by self-fulfilling prophecies) that parallel their expectations. But it is possible that identifiable individual differences affect actual or predicted responses to life events, creating theoretically important systematic variations in affective forecasts.

We are aware of only three previous studies examining individual differences in affective forecasting, one on emotional intelligence (Dunn, Brackett, Ashton-James, Schneideman, & Salovey, 2007), another comparing Euro-Canadians and East Asians (Lam, Buehler, McFarland, Ross, & Cheung, 2005), and a third examining the moderating influence of temporal focus (Buehler & McFarland, 2001). None of these important studies linked a particular individual difference to a specially related forecasting domain. Also, in these studies, the individual difference was not expected to have systematic differential effects on predictions and outcomes. The present article reports three studies that examined these possibilities, focusing on romantic relationship formation and dissolution in the context of a key individual difference, anxious attachment, expected to affect outcomes differently than predictions.
Affective Forecasting of Relationship Events

Relationships are central to human behavior and experience, and are deeply connected to emotional well-being (Lyubomirsky, King, & Diener, 2005), life satisfaction (Reis, Collins, & Berscheid, 2000), and health (Cohen, 2004). Many decisions about entering and ending romantic relationships are based on expected happiness or unhappiness and the perceived desirability of alternatives (Driogotas & Rusult, 1992). New romantic relationships typically foster happiness and self-growth (Aron, Paris, & Aron, 1995). People often report feeling that such a relationship would make their life complete and perfect (Aron, Aron, & Allen, 1998). Also, people are systematically and selectively attracted to potential partners they associate with anticipated positive outcomes such as validation, status, and being liked (Berscheid & Reis, 1998).

Conversely, termination of a romantic relationship often creates emotional hardship (Baumeister & Leary, 1995) and can be one of life’s most painful experiences (Berscheid & Reis, 1998). Expectations about life after breakups play a key role in decisions to stay or leave a relationship. For example, low perceived alternatives are a major reason why people stay in dissatisfying or abusive relationships (e.g., Rusult & Martz, 1995).

Gilbert et al. (1998) investigated affective forecasts for relational events. For romantic relationship formation, contrary to the pattern for other positive events, participants were accurate: Singles’ predicted happiness 6 months after falling in love matched the actual happiness of people who had been in a relationship for 6 months. For breaking up, however, the usual forecasting errors emerged: People who experienced a breakup about 2 months prior were significantly happier than estimates provided by those who had never experienced a breakup. Our research examined whether these patterns are moderated by anxious attachment.

To date, affective forecasting studies have largely investigated situational factors that shape the nature and extent of forecasting inaccuracies. Some more recent affective forecasting research (e.g., Dunn et al., 2007; Lam et al., 2005) has made a distinction between forecasting errors that are in the same direction (bias) and those that are inaccurate in both directions (inaccuracy). The focus of this research was not on random error, but systematic bias. We measured inaccuracy accounting for direction because we expected the responses to be biased in the same direction. However, to be consistent with the language used in most prior affective forecasting studies (e.g., Gilbert et al., 1998) and for ease of presentation, we use the term inaccuracy to refer to this bias.

Anxious Attachment and Relationship Events

Attachment style is associated with diverse relationship behaviors and experiences (Mikulincer & Shaver, 2007). Attachment anxiety, the focus of our research, is characterized by ruminative preoccupation with the desire for closeness and worry about acceptance.1 In romantic relationships, individuals high in anxious attachment typically report relatively low levels of relationship satisfaction (Mikulincer & Shaver, 2003) and positive emotions (Tidwell, Reis, & Shaver, 1996). Moreover, worries are highly accessible to anxious individuals (Shaver & Mikulincer, 2002), which often foster fear of rejection and separation.

Anxious attachment also influences reactions to relationship dissolution. Breakups represent a threat to the self, activating security concerns (Mikulincer & Shaver, 2007). Following breakups, anxiously attached individuals experience greater emotional and physical distress than secure individuals (Davis, Shaver, & Vernon, 2003). For example, following breakups, anxious individuals were slower to recover from sadness and anger and had more difficulty accepting the loss (Sbarra, 2006). Thus, for entering and ending a relationship, previous research and theory imply that anxious attachment would be negatively associated with happiness, although this has not yet been directly tested.

Because working models of attachment include expectations about the availability, caring, and responsiveness of romantic partners (Mikulincer & Shaver, 2007), they would seem critical to predictions about a change in relationship status. However, in comparison to studies of actual happiness, studies of predicted happiness after entering or ending a relationship are fewer and less consistent in their conclusions. In a study of unrequited love, persons high on anxious attachment tended to believe that life would be perfect if only their partner would reciprocate (Aron et al., 1998). However, because anxious persons may not expect partners to care for them (Mikulincer & Shaver, 2007), it is possible that they have mixed expectations, as a common name for anxious attachment—anxious ambivalence—suggests. Although there is little direct evidence, because people high in anxious attachment want to feel loved, valued, and cared for, the loss of a partner might be anticipated to be especially devastating.

The Present Studies

For entering relationships, we hypothesized that anxious attachment would be associated with lower actual happiness and higher or about the same predicted happiness. In contrast, for breakups, individuals high in anxious attachment may have worse outcomes, but they may also expect worse outcomes. Therefore, moderation would be due to differential weighting of the effect of attachment anxiety on outcomes versus expectations.

The present studies also addressed two limitations of the original Gilbert et al. (1998) study. First, external validity in their study was limited by reliance on an American college student sample. Second, in most previous studies, internal validity was limited by cross-sectional designs in which predictions and actual experiences came from different people. Our Study 1 was a direct replication of Gilbert et al., adding a measure of anxious attachment. Study 2 replicated Study 1, but with a large and relatively diverse sample. Study 3 used a longitudinal design, examining outcomes in the near-immediate aftermath of relationship formation and breakup.

Studies 1 and 2: Surveys

Method

Participants. Study 1 participants (n = 212, 114 women; M_age = 18.41 years) completed the survey as part of an introductory psychology “mass testing” at Stony Brook University. Study 2 participants (n = 1,010 complete responses, 749 women; M_age = 1

1 Although there was no theoretical basis for predicting moderation by attachment avoidance, it was measured in all three studies. Avoidance was consistently negatively associated with both actual and predicted happiness for entering a relationship, but it was inconsistently related to actual happiness and unrelated to predicted happiness for breaking up.
23.51 years) were recruited through e-mail notices distributed through various online list serves.

Procedure. Following Gilbert et al. (1998) precisely, participants first rated current happiness, then were asked whether they were presently involved in a close romantic relationship (“an exclusive, monogamous relationship that both partners expect to endure for a significant period”). Those answering “yes” were asked how long they had been in the relationship; those answering “no” were asked to predict their general happiness 6 months after entering such a relationship. Next, all participants (regardless of current relationship status) were asked whether they had ever experienced the breakup of a close romantic relationship. Those answering “yes” were asked how long ago the breakup had occurred; those answering “no” were asked to predict their general happiness 2 months after such a breakup. Finally, all participants completed the attachment style measure.

Measures. Following Gilbert et al. (1998), we assessed happiness with a single item, “In general, how happy would you say you are these days?” on a 1 (not happy) to 7 (very happy) scale. One-item measures of happiness can be reasonably valid and reliable (Diener, 1984). Attachment anxiety was assessed with the Experiences in Close Relationships—Revised questionnaire (ECR–R; Fraley, Waller, & Brennan, 2000) Anxiety subscale; Study 1 (α = .83) used the nine-item short subscale, and Study 2 (α = .94) used the 18-item version.

Results and Discussion

Again, following Gilbert et al. (1998), we first classified participants into six groups:

1. Young lovers: In a relationship < 6 months (Study 1/Study 2: n = 30/102; M = 2.71/ 3.06 months, SD = 1.74/1.53).
2. Old lovers: In a relationship ≥ 6 months (Study 1/Study 2: n = 92/476; M = 24.43/49.52 months, SD = 19.47/65.98).
3. Young leftovers: Breakup < 2 months ago (Study 1/Study 2: n = 22/36; M = 0.52/0.73 months, SD = 0.55/0.46).
4. Old leftovers: Breakup ≥ 2 months ago (Study 1/Study 2: n = 123/727; M = 19.52/39.67 months, SD = 19.18/52.95).
5. Loners: Not currently in a relationship (Study 1/Study 2: n = 72/425).

(Note: Following Gilbert et al., lover vs. loner and leftover vs. lucky groups were assigned independently, so that each participant was included in two different comparisons.)

Replication test of Gilbert et al. (1998) for entering a relationship. Replicating Gilbert et al., “Loners’” forecasted happiness was not significantly greater (t < 1) than the happiness reported by those in relationships in both Study 1 comparisons and in the Study 2 loner versus young lover comparison. However, in Study 2, with its somewhat older participants in longer term relationships, loners’ mean forecasted happiness was greater than the mean happiness reported by old lovers; contrast t(999) = 4.01, p < .001. (See online supplement for Tables 1 and 2, which include all means and comparisons with Gilbert et al. See Discussion for meta-analytic results across the three studies for both mean comparisons and the interactions with attachment anxiety.)

Moderation by anxious attachment for entering a relationship. Because predictions and actual experiences came from different people, we needed to create a criterion variable that combined the predicted experiences of loners with the actual experiences of lovers. Specifically, we conducted regressions in which the criterion variable was happiness (e.g., for loner vs. young lover analyses, the values were predicted happiness for loners and actual happiness for young lovers). The predictor variables in each analysis were relationship status (loner or lover of the appropriate type, dummy coded with 0 for young or old lover and 1 for loners), anxious attachment (centered), and their product.

Consistent with our hypothesis, those with high (vs. low) attachment anxiety were less accurate in both studies for both comparisons. As shown in Figure 1, in each case, the simple effect of attachment anxiety on actual happiness was negative, but was essentially flat for predicted happiness. Thus, poorer accuracy among anxiously attached persons appears to be due to their lower actual happiness in relationships, which they did not take into account when making their predictions.

Replication test of Gilbert et al. (1998) for breakup. Replicating Gilbert et al., in both studies and in both comparisons, participants who had never experienced a breakup were inaccurate forecasters: Luckies’ predicted happiness was lower than the actual happiness reported by young leftovers, Study 1 contrast t(209) = −3.31, p < .01; Study 2 contrast t(1000) = −5.16, p < .001, or the actual happiness reported by old leftovers, Study 1 contrast t(209) = −7.14; Study 2 contrast t(1000) = −22.44, ps < .001.

Moderation by anxious attachment for breakup. As shown in Figure 2, both studies again found that the slope appeared negative for outcomes, but was flat for predictions. However, the pattern was quite weak (and not significant) in Study 1, and the pattern in Study 2, although generally similar, differed from the entering pattern in that participants with low attachment anxiety were most inaccurate, a topic to which we return in the General Discussion.

Study 3: Longitudinal

Study 3 participants were tested every 2 weeks over a 10-week period, permitting us to assess predicted happiness and actual happiness before and after they entered new relationships and before and after breakups. To keep this study comparable to Studies 1 and 2, we used the same measures. However, given the 10-week time period, it was only practical to use happiness shortly after an event (actual happiness since the previous testing, meaning 0 to 2 weeks before; for predicted, 1 week, our assumed average time since an event). Eastwick, Finkel, Krishnamurti, and Loewenstein (2008) successfully used a similar longitudinal design to find affective forecasting errors for breakups in a small sample of 26 participants across a 2-week period. The present study employed a larger sample, obtained forecasts for both entering a new relation-
ship and breaking up, and, crucially for present purposes, examined moderation by anxious attachment.

Method

Participants \((n = 535, 385\) women; \(M_{\text{age}} = 21.99\) years) were Stony Brook undergraduates. At the start of the study, 21 were married or engaged, 212 dating exclusively, 42 dating casually, and 155 not currently in a relationship (105 did not report relationship status at time 1). Modeled after Aron et al. (1995), at Time 1, participants provided affective forecasts (“How happy in general do you think you would be a week after becoming involved in a close romantic relationship?” and “How happy in general do you think you would be a week after experiencing the breakup of a close romantic relationship?”), rated current happiness (identical to Studies 1 and 2), and completed the nine-item ECR measure (\(\alpha = .82\)). At the five remaining assessments, participants reported current happiness and whether they had experienced the focal relationship events (“Have you entered a new close romantic relationship within the past 2 weeks?”; “Have you experienced the breakup of a close romantic relationship within the past 2 weeks?”). If participants replied “yes” to either event, the happiness reported at that time was used as the actual happiness after entering a new relationship or breaking up. During the 10 weeks, 53 participants entered a new relationship and 69 experienced a breakup.

Results and Discussion

Longitudinal replication for entering a relationship. Participants who began a relationship during the semester were less happy 1 week after entering the relationship than they predicted they would be at the study outset, paired \(t(37) = 5.68, p < .001\). This result differs from the cross-sectional findings of Gilbert et al.
(1998) that used a 6-month timeframe to compare loners’ (singles) predicted happiness to the actual happiness of young lovers, presumably due to the shorter timeframe.

**Moderation by anxious attachment for entering a relationship.** As shown in Figure 1, within the subsample that began a new relationship, there was the same pattern as in Studies 1 and 2. Not surprisingly given the small sample size, the regression of forecasting inaccuracy scores (i.e., predicted minus actual happiness difference score) on attachment anxiety did not approach significance using a two-tailed test; however, anxious attachment did have a significant negative simple effect for actual happiness, and the simple effect for predicted happiness was not significant.

**Longitudinal replication test for breakup.** Replicating Gilbert et al. (1998) and our Studies 1 and 2, but for the first time in a longitudinal context, we found that people were happier after the breakup of a relationship than they expected to be, paired \( t(60) = 10.44, p < .001 \).

**Moderation by anxious attachment for breakup.** As shown in Figure 2 and as in the previous studies, the interaction with breakup was again relatively weak and nonsignificant.

**General Discussion**

Meta-analytically combining the two surveys and the longitudinal study,\(^2\) we found that accuracy of affective forecasts for two highly important life events—entering and ending a relationship—was significantly moderated by an important relationship-relevant

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\(^2\) Comprehensive meta-analysis program (Borenstein, Hedges, & Rothstein, 2007).
individual difference—attachment anxiety. (For entering a relationship, young lover vs. loner interaction β = .31, old lover vs. loner β = .29, ps < .001; for breakup, β = .20, p < .05, and β = .19, p < .001, respectively.) In each case, the effect followed the same pattern: negative associations between attachment anxiety and actual happiness following the event (for entering, β = −.42 and β = −.41, ps < .001, respectively; for breakup, β = −.24, p < .05, and β = −.42, p < .001, respectively), but near-zero associations for predictions (for entering, β = −.04, 95% CI [−.13, .04]; for breakup, β = .02, 95% CI [−.09, .12]). This key near-zero association for predictions might seem an ambiguous null finding, especially given our reliance on single-item measures, following Gilbert et al. (1998). However, contrary to this interpretation, the single-item measure was sufficient to yield a clear interaction, had very small confidence intervals, and was sufficient to yield considerable overall mean differences between actual and predicted happiness for breakup.

These studies showed for the first time that forecasting accuracy (or bias as it is sometimes referred to in the literature) differs systematically as a function of a focally relevant individual difference. Moreover, the theoretically expected distinct effects of this individual difference on predictions and outcomes were systematically shown.

In addition, comparison of Figures 1 and 2 reveals an important difference in the role of attachment anxiety for entering and ending relationships. Those low in anxious attachment were fairly accurate when it came to entering a relationship, but less accurate for breaking up. Low anxious attachment is traditionally (and justifiably) considered ideal. But these findings tentatively suggest one shortcoming: Less anxious people may be prone to immune neglect and thus systematically underestimate their ability to cope with romantic breakups. Future research might directly test the mechanism behind these findings. Persons high in anxious attachment, in contrast, seem to exhibit something akin to depressive realism (Alloy & Abramson, 1979).

Our findings also bear importantly on general issues pertaining to affective forecasts. Our studies largely replicate Gilbert et al. (1998) regarding systematic inaccuracies in affective forecasts for relationship events, and do so for the first time in a more representative sample, using a longitudinal design and for different lengths of time. Meta-analytically, both young and old lovers were inaccurate at predicting their emotions about entering a new relationship (using the Stouffer Z test, overall Z = −3.82 for young leftover contrast; Z = −4.70 for old lover contrast, ps < .001). Although these results are inconsistent with those in smaller samples, using a large sample, they are consistent with the affective forecasting research suggesting that people are generally inaccurate forecasters. Consistent with previous research, people were inaccurate overall in their breakup predictions (overall Z = −8.83, young leftover contrast; Z = −8.48, old leftover contrast, ps < .001).

Of course, there are limitations to this work: The present findings will benefit from replication; our assessment of the focal individual difference (and of happiness) was entirely self-report; the methods (even if partially longitudinal) are essentially correlational; and generalizability is limited to the Western, individualistic cultural context of our samples. Future research might also explicitly test whether anxious attachment might moderate nonrelational events. In addition, future affective forecasting research should measure varied aspects of emotion. Perhaps both highly anxious individuals and less anxious individuals might make better predictions if asked to be mindful about their full repertoire of emotional responses.

Nevertheless, these studies advance knowledge of affective forecasting in several ways: They demonstrate the basic effect for the first time in a broad, longitudinal sample. They also showed for the first time that (a) a relevant individual difference can moderate affective forecasts, (b) an individual difference can moderate these forecasts by having systematically different effects on predictions and outcomes, and (c) attachment anxiety appears to undermine prediction accuracy for entering a relationship but to enhance it for breakups.

**References**


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