To Have and to Hold: Gratitude Promotes Relationship Maintenance in Intimate Bonds

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This multimethod series of studies merges the literatures on gratitude and risk regulation to test a new process model of gratitude and relationship maintenance. We develop a measure of appreciation in relationships and use cross-sectional, daily experience, observational, and longitudinal methods to test our model. Across studies, we show that people who feel more appreciated by their romantic partners report being more appreciative of their partners. In turn, people who are more appreciative of their partners report being more responsive to their partners' needs (Study 1), and are more committed and more likely to remain in their relationships over time (Study 2). Appreciative partners are also rated by outside observers as relatively more responsive and committed during dyadic interactions in the laboratory, and these behavioral displays are one way in which appreciation is transmitted from one partner to the other (Study 3). These findings provide evidence that gratitude is important for the successful maintenance of intimate bonds.

Keywords: gratitude, appreciation, romantic relationships, risk regulation, relationship maintenance

When Adam Smith took stock of the emerging industries of the Industrial Revolution, he observed that experiences of gratitude build cooperative relationships among nonkin. Indeed gratitude is thought to be a "moral motivator," helping people form close social bonds (Algoe, Haidt, & Gable, 2008; McCullough, Kilpatrick, Emmons, & Larson, 2001; McCullough, Kimeldorf, & Cohen, 2008). Although most gratitude theorists consider gratitude to be particularly important in the formation of new relationships (Bar-Tal, Bar-Zohar, Greenberg, & Hermon, 1977; McCullough et al., 2008), we join other recent scholars who suggest that gratitude

is also vital for the maintenance of existing interpersonal bonds, such as romantic relationships (e.g., Algoe, Gable, & Maisel, 2010; Gordon, Arnette, & Smith, 2011; Kubacka, Finkenauer, Rusbult, & Keijsers, 2011).

Several lines of empirical inquiry have documented that romantic relationships are vital to physical health and psychological well-being (e.g., House, Landis, & Umberson, 1988; Sedikides, Oliver, & Campbell, 1994; for a review, see Kiecolt-Glaser & Newton, 2001). Relationships are not easy, however, as nearly one out of two first marriages ends in divorce (U.S. Census Bureau, 2002). Given the benefits of being in a healthy romantic relationship, it is essential to understand which factors help people maintain their relationships over time. We suggest that gratitude is one key factor that promotes successful maintenance of ongoing romantic bonds. Initial evidence supports this claim: When people experience gratitude in their relationships, they feel closer to romantic partners and more satisfied with their relationships (Algoe et al., 2010; Gordon et al., 2011) and report engaging in more relationship maintenance behaviors, such as trying to resolve conflict (Kubacka et al., 2011). We suggest that the other side of the gratitude experience—feeling appreciated by one's partner—also plays an important role in the maintenance of romantic relationships. Indeed, people cite not feeling loved and appreciated as a top reason for divorce (Gigy & Kelly, 1992). In the present investigation, we present and test a process model that includes

both of these critical elements of appreciation and links them with the successful maintenance of relationships over time.[1]

We turn to theoretical work on risk regulation (Murray & Holmes, 2009; Murray, Holmes, & Collins, 2006) to develop the rationale for our process model of appreciation and romantic relationship maintenance. Theory and empirical evidence on risk regulation suggest that people think and behave in relationship-promoting ways when they feel cared about by high-quality partners. In the current research, we extend this model to the study of gratitude, proposing that appreciation influences relationship maintenance through a multiple-step process, which we have depicted in Figure 1. The first three paths in our model contain our predictions regarding appreciation and relationship maintenance as an intrapersonal process. Our model stipulates that feeling appreciated by one's partner leads people to be more appreciative of their partner (Path A). Feeling appreciative, in turn, increases people's desire to maintain their relationships (Path B), and is an important mechanism by which feeling appreciated by one's partner leads to increased relationship maintenance (Path C). The model also includes pathways depicting the interpersonal transmission of appreciation in dyadic relationships. The model stipulates that people feel more appreciated by partners who engage in relationship maintenance behaviors (Path D), and that these maintenance behaviors are a critical mechanism by which feelings of appreciation are signaled from one partner to another (Path E). We review the basic tenets of the risk regulation system and use this framework to develop the rationale for each component of our model of appreciation and relationship maintenance.

A Risk Regulation Approach to Appreciation

Romantic relationships can be a source of great intimacy and comfort, but they are also fraught with the potential for considerable pain and rejection (Gable & Impett, 2012; Murray et al., 2006). The risk regulation system helps people navigate conflicts between possible rejection and enhanced intimacy by signaling when to engage in self-protection and when to engage in relationship promotion (Murray & Holmes, 2009; Murray et al., 2006). For example, if Bella is trying to decide whether to tell her boyfriend of 6 months that she loves him, she has to weigh the possibility that her boyfriend will reply with an awkward and humiliating "thanks" or perhaps will say nothing at all, against her more hoped for outcome—that he will say he loves her too. What information does she gather to help her decide whether the time is right to profess her love? A basic tenet of the risk regulation model is the idea that feeling positively regarded by a partner (i.e., perceiving that a partner sees positive qualities in the self that are worth valuing) provides people with a sense of felt security necessary to engage in relationship-promoting behaviors. In Bella's case, if she feels confident that her boyfriend sees her as having valuable qualities, she will be more likely to take the risky step of saying "I love you."

Another critical factor that influences people's decisions to engage in relationship promotion is whether they view their partners positively. People should only risk investing in a relationship to the extent that they believe they are in a relationship with someone who is a good partner and is able to fulfill their needs (Murray & Holmes, 2009; Murray et al., 2006; Murray, Holmes, Griffin, Bellavia, & Rose, 2001). When deciding whether to en-

gage in risky behavior in a relationship (e.g., provide resources or affection to a partner), people must gauge whether their partner is worth the effort. In other words, people are more likely to invest in their relationships when they are with someone whom they believe meets their expectations for a potential long-term romantic partner, and is likely to reciprocate affection and rewards.

In the current article, we apply this risk regulation perspective to the study of gratitude, suggesting that appreciation is a critical barometer by which people gauge the state of their relationship and determine whether they should risk engaging in relationship-promoting behaviors. Feelings of being *appreciated* arise when individuals perceive that their partners see them as valuable. Thus, feeling appreciated provides people with a sense of security and confidence in their partners' regard. On the other side of this dyadic experience are *appreciative* feelings that remind people of a partner's inherent value and worth. These appreciative feelings provide people with the assurance that they are in a relationship with a good partner, someone who is worth the investment. We propose that together these two critical aspects of appreciation influence people's desires to maintain their close relationships.

Feeling Appreciated by One's Partner Promotes One's Own Appreciative Feelings

The first three paths in our model concern the intrapersonal benefits of appreciation for relationship maintenance. That is, the first three paths concern the ways in which people's own experiences of appreciation influence their own desires to maintain their relationships. In the first path in our process model (Path A), we propose that feeling appreciated by romantic partners leads people to feel more appreciative of their partners and their romantic relationships. Recent research on gratitude has considered the role of being appreciative of one's partner in promoting relationship maintenance strategies (Kubacka et al., 2011), but, to date, there has been little research on the role of feeling appreciated by one's partner. In light of the risk regulation perspective, feeling appreciated by a partner should serve as a trigger of relationship maintenance processes. For example, consider a situation in which Bella comes home after a long day of work to discover that her boyfriend cooked an elaborate meal. She is certainly likely to feel grateful to him in this situation, wanting to express her thanks. However, she is also likely to feeling appreciated *by* him, since his willingness to cook dinner for her lets her know that he cares about her and the relationship. According to the risk regulation model, feeling appreciated by one's partner should provide people with the critical sense of security and safety necessary for experiencing and expressing their own appreciative feelings. Thus, we propose that situations that elicit feelings of being appreciated by one's partner will in turn promote one's own appreciative feelings. Considered another way, it would be risky to see one's partner as valuable, and to express those feelings, when one is unsure how one's partner feels. Feeling appreciated by one's partner should

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[1] Scholars often use the words *appreciation* and *gratitude* interchangeably. For the sake of clarity, we use the term *appreciation* to refer to general feelings of gratitude for whom a person is and for what a person does. We use the term *gratitude* to refer to an emotional response to a person's kind deed.
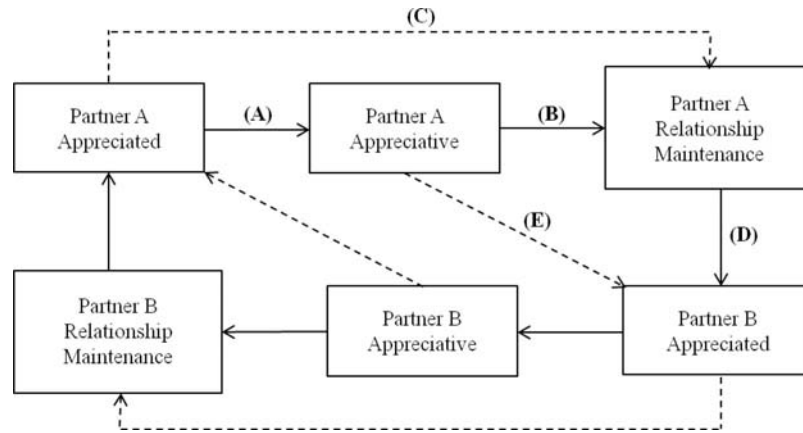
(C)

Partner A Appreciated — (A) → Partner A Appreciative — (B) → Partner A Relationship Maintenance

(E)

(D)

Partner B Relationship Maintenance ← Partner B Appreciative ← Partner B Appreciated

Figure 1. Proposed process model of appreciation and relationship maintenance.

also give rise to appreciative feelings for a second simple reason—a partner who clearly values you is a partner worth valuing.

Empirical findings on risk regulation (Murray, Holmes & Griffin, 2000; Murray et al., 2001; Murray, Holmes, MacDonald, & Ellsworth, 1998) provide evidence for this first path in our process model. In one study, both dating and married individuals who felt more positively regarded by their partners (i.e., believed that their partners rated them more positively on a variety of interpersonal traits) saw their own partners in a more positive light (i.e., rated their partners more positively on the same traits; Murray et al., 2000). Moreover, dating partners who felt more positively regarded by their partners came to see their partners even more positively over time. In another study, people who reported feeling more loved by their partners rated their partners more favorably relative to people who felt less loved (Murray et al., 2001). This effect was particularly pronounced for those who were married, providing evidence that these processes are important in long-term bonds. Extending this work on risk regulation to the domain of gratitude, we predict that people in ongoing romantic relationships will report being more appreciative of their partners when they feel appreciated by them.

Appreciative Feelings Promote Relationship Maintenance

The second path in our process model represents our assertion that experiences of being appreciative of one's partner will strengthen one's relationship maintenance (Path B). Research on risk regulation has shown that people who believe they are in a relationship with a good partner are more optimistic about the future of the relationship (Murray et al., 2001). We extend this finding to the study of appreciation and relationship maintenance, predicting that seeing a partner as valuable (i.e., feeling appreciative) will motivate people to want to remain committed to their partners and therefore think and act in ways that will help them maintain their relationships. We also draw upon interdependence theory (Kelley & Thibaut, 1978; Rusbult & Kubacka, 2009) in making this prediction, anticipating that one way in which appreciative feelings promote relationship maintenance is by reprioritizing people's goals through a transformation of motivation. That is, we suggest that appreciative feelings shift people's focus from

their own immediate self-interest toward broader considerations such as their partner's needs in order to foster their own relationship maintenance goals over the long term.

Evidence that people who are more appreciative of their partners engage in more relationship maintenance is found in the growing literature on gratitude. Most notably, people who feel grateful for their partners report engaging in more relationship maintenance behaviors, such as trying to solve a conflict with their partner (Kubacka et al., 2011). In experimental research on gratitude, people who are instructed to express gratitude report being more motivated to help close others (Lambert, Clark, Durtschi, Fincham, & Graham, 2010) and are more willing to voice concerns about their relationships (Lambert & Fincham, 2011) relative to people who are not instructed to express feelings of gratitude. Taken together, these findings suggest that gratitude motivates relationship maintenance behaviors. In the current research, we extend these findings by examining a variety of relationship maintenance cognitions and behaviors that have not been examined in previous research, including behavioral displays of responsiveness and commitment.

The third path of our model (Path C) concerns the ways in which feelings of being appreciated by one's partner influence relationship maintenance. We propose that feeling appreciated by one's partner does not have a direct effect on relationship maintenance. Instead, we suggest that appreciative feelings are the mechanism through which feeling appreciated by one's partner leads to greater relationship maintenance. In short, feeling appreciated by one's partner makes people feel secure and, critically, helps them recognize that they have a valuable partner, which then promotes their desire to think and act in ways that will help them maintain their relationships.

Appreciation Is Signaled Through Relationship Maintenance Behaviors

The first three paths in our proposed model focus on the intrapersonal processes by which appreciation promotes romantic relationship maintenance. The final two paths focus on the interpersonal dynamics of appreciation, such as how appreciation is transmitted from one partner to another. We propose that people will feel more appreciated by partners who engage in more rela-

tionship maintenance behaviors (Path D). According to risk regulation theory, feeling cared about by one's partner is critical because it provides people with a sense of felt security in their partner's positive regard. For this system to work properly, people's feelings that they are cared about by a valued partner should have some basis in reality. That is, people should feel appreciated by partners who actually do appreciate them and behave correspondingly. This reasoning is in line with evolutionary accounts of signaling processes related to prosociality; humans have evolved capacities to detect more cooperative individuals—in the present case, more appreciative partners—with whom to enter into long-term, committed relationships (Goetz, Keltner, & Simon-Thomas, 2010; Gonzaga, Keltner, Londahl, & Smith, 2001; Tooby & Cosmides, 1996).

Previous research does indeed suggest that partners pay attention to and detect a romantic partner's relationship maintenance behaviors. Specifically, when people perceive that their partners engage in more pro-relationship behaviors such as being more willing to sacrifice, they develop trust that their partners care about them and are responsive to their needs (Wieselquist, Rusbult, Foster, & Agnew, 1999). Further, recent research on gratitude has shown that people perceive their partners as more responsive to the extent that their partners report engaging in more relationship maintenance behaviors, such as indicating that they had offered to do things that were not their responsibility over the previous week (Kubacka et al., 2011). On the basis of this work, we anticipate that the link between one partner's relationship maintenance behaviors and the other partner's feelings of being appreciated will work in a similar way, with people feeling the most appreciated by partners who engage in behaviors that help maintain the relationship. We further propose that relationship maintenance behaviors are one way in which feelings of appreciation are transmitted from one partner to the other. That is, when one partner feels appreciative, he or she will act in ways that will help him or her maintain the relationship, and the other partner will pick up on these signals and feel appreciated (Path E).

Overview of the Current Research

In the present research, we develop and test a process model by which appreciation influences the maintenance of romantic relationships. This model is grounded in conceptual analyses of gratitude (McCullough et al., 2001) and risk regulation (Murray et al., 2006), and posits that (a) feeling appreciated and being appreciative promote relationship maintenance, and (b) relationship maintenance behaviors are a critical way in which appreciation is communicated between partners. Across studies we measured relationship maintenance in a variety of ways, including assessments of people's responsiveness to their partners' needs, commitment to the relationship, and relationship stability. To date, no research has examined the association between gratitude and any of these measures of relationship maintenance.

First, we created and validated the Appreciation in Relationships (AIR) Scale, a measure of appreciation that assesses both people's feelings of being appreciated and their appreciative feelings, since no such measure exists. Our measure captures appreciation for a partner's kind deeds as well as a more generalized sense of appreciation for who a partner is as a person (Adler & Fagley, 2005; Lambert, Graham, & Fincham, 2009). Then, in Studies 1 and

2 we assessed the intrapersonal aspects of our process model, testing our hypotheses regarding Paths A–C. In Study 1, we used background and daily data from a 14-day daily experience study to test whether appreciation is associated with responsiveness to a partner's needs. In Study 2, we tested the link between appreciation and a different measure of relationship maintenance, relationship commitment, in a 7-day daily experience study with a 9-month follow-up. We also examined whether appreciation is associated with the stability of romantic relationships. These daily experience and longitudinal methods enabled us to test the temporal sequence of our hypotheses, such as examining whether being appreciative of one's partner forecasts increases in efforts to maintain one's relationship over time.

In Study 3, we collected data from both members of the couple in order to test the interpersonal components of our model (Paths C and D). Specifically, we brought each couple into the laboratory and examined whether appreciation is associated with outside observer ratings of responsiveness and commitment during dyadic interactions, and whether these observed behaviors are one way in which appreciation is communicated between partners. We chose to use observational methods to corroborate our self-report findings with outside observer's ratings of dyadic behaviors. Our use of observational measures represents an important extension to the existing work on gratitude, which has, to date, relied exclusively on the use of self-report measures (e.g., Algoe et al., 2010; Gordon et al., 2011; Kubacka et al., 2011).

Creation and Validation of the AIR Scale

Previous research on appreciation has typically included measures comprising either a single item (e.g., "I felt that my partner appreciated what I did"; Berger & Janoff-Bulman, 2006) or several synonyms (e.g., "gratitude," "appreciation," and "thankfulness"; Algoe et al., 2010; for recent exceptions, see Gordon et al., 2011; Kubacka et al., 2011). In addition, each of these existing measures assesses only one critical aspect of appreciation—either being appreciative or feeling appreciated—or combines them into one overall measure that collapses across the two components (Gordon et al., 2011). Thus, our first objective in this investigation was to develop a new, multi-item measure of appreciation in relationships that assesses both the extent to which people feel appreciated by their partners and the extent to which they are appreciative of their partners.

The creation of the AIR Scale involved three steps drawing upon four distinct samples. In the first step, we created an initial pool of items based on lay knowledge, theory, and previous measures of appreciation and gratitude (Adler & Fagley, 2005; McCullough, Emmons, & Tsang, 2002). These items were designed to capture a broad conceptualization of appreciation by including items that assess the extent to which people recognize and value their partner as a person as well as the extent to which they are grateful for a partner's kind deeds (Adler & Fagley, 2005; Gordon et al., 2011; Lambert et al., 2009). Our first sample completed the initial pool of items, and we used exploratory factor analyses, reliability analyses, and descriptive statistics to select the final items for the scale. In the second step, we conducted confirmatory factor analyses on the final scale items using a new sample in order to confirm the two-factor structure of the scale.

In the third step, after establishing the two-factor structure of the AIR Scale, we examined its convergent and discriminant validity using two additional samples. To test the validity of the scale, we examined its association with several relevant measures. First, we examined whether the two AIR subscales (feeling appreciated and being appreciative) were correlated with existing measures of gratitude. We expected that the AIR subscales would be positively correlated with a measure of dispositional gratitude (McCullough et al., 2002) and a measure of gratitude for a partner's kind thoughts and deeds (adapted from Algoe et al., 2010). In contrast, we did not expect either subscale to be associated with feeling more indebted to one's partner, since gratitude and indebtedness are distinct responses to receiving a benefit, and indebtedness is associated with negative affect (Algoe et al., 2010; McCullough et al., 2001).

Second, we examined the associations between the AIR subscales and people's views of their own partner and the typical partners' positive interpersonal traits (Murray, Holmes, & Griffin, 1996). In relationships, appreciation occurs as a result of noticing and acknowledging a partner's value; thus, we expected that people who were more appreciative of their partners would view them as having more positive interpersonal traits. The extent to which people feel appreciated by their partners should also be associated with a partner's positive interpersonal traits, since people are more likely to feel appreciated by a partner whom they see as being high on valued interpersonal traits such as kindness and affection. In contrast, a measure of appreciation in one's relationship should not be associated with people's views of the typical relationship partner.

Third, we assessed the associations between the AIR Scale and attachment orientations. Attachment theory is a core construct in close relationships, and people's attachment to their romantic partners has been shown to influence their feelings of gratitude (Mikulincer, Shaver, & Slav, 2006; for a review, see Mikulincer & Shaver, 2007). Attachment avoidance, characterized by a desire to maintain emotional distance in relationships, should be negatively associated with both the extent to which people feel appreciated by their partners and the extent to which people feel appreciative of their partners. In contrast, attachment anxiety, characterized by the beliefs about wanting to be closer than is desired by the partner, should be negatively associated with the extent to which people feel appreciated by their partners, but not the extent to which they are appreciative of their partners. Finally, we expected that both components of appreciation would be associated with greater feelings of relationship satisfaction.

Method

Participants

See Table 1 for sample characteristics. Participants in all samples completed measures online through a secure website. Samples A and D participated to earn credit for psychology courses. Samples B and C were recruited through Craigslist.org, and participants were entered into a lottery for a chance to win a prize.

Measures

Appreciation items. In Sample A, participants completed 30 items that assessed the extent to which they felt appreciative of their partner (appreciative subscale; 19 items) and the extent to which they felt their partner was appreciative of them (appreciated subscale; 11 items). For Samples B–D, participants completed the final 16-item AIR Scale (nine appreciative items, average $\alpha = .74$; seven appreciated items, average $\alpha = .86$). In all samples, participants rated how strongly they agreed with each item on 7-point scales (1 = *strongly disagree* to 7 = *strongly agree*). In sample A, we also asked for short open-ended descriptions of people's feelings of being appreciated and of being appreciative in their relationships in order to compare the 30 close-ended items to people's lay experiences.

Grateful disposition. The grateful disposition was measured with the Gratitude Questionnaire (McCullough et al., 2002). Participants completed six items such as "I have so much in life to be thankful for" and "I am grateful to a wide variety of people" (1 = *strongly disagree* to 7 = *strongly agree*). Average α for Samples C and D = .80.

Gratitude and indebtedness. Gratitude and indebtedness were measured with items adapted from Algoe et al.'s (2010) measure of daily relationship gratitude. Participants reported how much they experienced "gratitude," "thankfulness," and "appreciation" as well as feelings of "indebtedness" in response to the prompt "People feel many different things as a result of others' actions. Using the scale below, please indicate how each item describes how you feel as a result of your partner's actions toward you" (1 = *not at all* to 7 = *very much*). The items were embedded among other filler items such as "joy" and "resentment." Average gratitude α for Samples C and D = .77.

Interpersonal qualities. The Interpersonal Qualities Scale (Murray et al., 1996) was used to assess interpersonal qualities. All participants described how they view their partners (average $\alpha = .85$) and how they saw the typical partner (average $\alpha = .89$) on 21

Table 1
Sample Characteristics for Creation and Validation of the Appreciation in Relationships (AIR) Scale

Sample	Population	N	% female	Age (years)		Relationship length	
				Average	Range	Average	Range
A	Undergraduates	194	70	21	18–35	2 years	1 month–10 years
B	U.S. adults	347	77	27	18–63	3 years	1 month–33 years
C	U.S. adults	93	83	28	18–65	3 years	1 month–25 years
D	Undergraduates	81	70	21	18–39	1.5 years	1 month–6 years

positive and negative interpersonal traits, such as "kind and affectionate" and "thoughtless" (1 = *not at all characteristic of my partner/the typical partner* to 9 = *completely characteristic of my partner/the typical partner*). Negative traits were reverse scored so that higher scores reflect more positive views of the target.

Attachment orientations. Attachment anxiety and avoidance were measured with a validated 12-item version of the Experiences in Close Relationships Scale (short form; Wei, Russell, Mallinckrodt, & Vogel, 2007). Participants rated their agreement with six items measuring attachment anxiety (e.g., "I need a lot of reassurance that I am loved by my partner"; average α = .73) and six items measuring attachment avoidance (e.g., "I try to avoid getting too close to my partner"; average α = .81) on 7-point scales (1 = *strongly disagree* to 7 = *strongly agree*).

Relationship satisfaction. Relationship satisfaction was assessed with the Couples Satisfaction Index (Funk & Rogge, 2007). Participants responded to 16 items such as "In general, how satisfied are you with your relationship?" on 6-point scales (0 = *not at all* to 5 = *completely*). Average α for Samples C and D = .93.

Results and Discussion

Creating the AIR Scale

To create the AIR Scale, we administered our initial 30 items to our first sample (Sample A). From this data, four criteria guided our selection of the final items for the appreciation scale: principal component loadings, reliability, means and variances, and recurring themes captured in lay narratives. We expected two main components of appreciation to emerge in this inquiry: feeling appreciated and being appreciative. As anticipated, an exploratory factor analysis on the initial 30 items using principal component extraction with varimax rotation yielded an appreciated factor and an appreciative factor.

All appreciated items loaded more highly on the appreciated factor than on the appreciative factor. All except one of the appreciative items, which we subsequently dropped, loaded more highly on the appreciative factor than on the appreciated factor. In the rotated factor solution, the appreciated factor accounted for 23% of the variance, and the appreciative factor accounted for 22% of the variance. Both subscales exhibited high reliability (appreciated, α = .90; appreciative, α = .88). The average appreciated subscale mean was 5.13 (*SD* = 1.24; range: 1.67–7.00). The average appreciative subscale mean was 5.35 (*SD* = 0.99; range: 2.89–7.00). As one would expect, the two subscales were significantly correlated (r = .53, p < .001). In a more qualitative assessment, we compared the 30 items to narratives participants had written describing what makes them feel appreciated by their partners and what makes them appreciative of their partners. The narratives contained themes that were similar to those captured by our close-ended items, such as participants feeling a sense of awe that their partner is in their life and feeling appreciated when their partner engages in kind acts. On the basis of a recurring theme in the narratives that was not represented by any of the initial items, we created one new item to more fully capture the experience of feeling appreciated ("My partner makes me feel special"). This item was included in the analyses with Samples B–D and in all subsequent studies in this article.

Table 2 displays the 16 items (nine appreciative, seven appreciated) retained for the AIR Scale along with their factor loadings and cross-loadings, corrected-item-total correlations, means, and variances. These items represent appreciation for who a partner is as a person as well as appreciation for what a partner does. The final set of items loaded highly on their respective factors, had moderate item-total correlations, had means nearest the center of the scale and large variances, and represented people's lay experiences of appreciation.

Confirming the Two-Factor Structure of the AIR Scale

Given the strong correlation between the two subscales of the AIR Scale, we sought to confirm that a two-factor appreciated and appreciative model was better than a one-factor appreciation model. To do so, we conducted a series of confirmatory factor analyses in a new sample (Sample B) using AMOS 18 (Arbuckle, 2009). We compared a one-factor model to a two-factor model in which the correlation between the two factors was freely estimated. In both models we allowed for correlated error terms on each factor for highly correlated items (i.e., correlations greater than .6; see Cate & John, 2007, for a similar method). Across all standard fit indices, the two-factor model produced a significantly better fit than the one-factor model, $\Delta\chi^2(1, N = 296) = 54.34, p < .001$, and showed acceptable fit overall (comparative fit index = .93, root-mean-square error of approximation = .08; Browne & Cudeck, 1993; Hu & Bentler, 1999).

Establishing Convergent and Discriminant Validity

Next, we sought to establish the validity of the AIR Scale by examining whether the two subscales were correlated in meaningful ways with relevant constructs. We conducted these analyses in two independent samples (Samples C and D). As expected, and shown in Table 3, both AIR subscales were positively correlated with the extent to which people had a grateful disposition, as well as with people's gratitude in response to their partners' kind acts. In contrast, neither AIR subscale was associated with people's feelings of indebtedness to their partners. Also in line with predictions, the AIR subscales were positively associated with people's views of their partners' positive traits, but not with the positive traits of the typical romantic partner. In terms of attachment, we found that attachment avoidance was negatively associated with both feeling appreciated and being appreciative, whereas attachment anxiety was only negatively associated with feeling appreciated. Finally, both AIR subscales were positively associated with relationship satisfaction.

In sum, across four samples we created a measure of appreciation in relationships that captures both people's appreciative feelings and their feelings of being appreciated by their partners. A confirmatory factor analysis provided evidence that the AIR scale has two distinct factors. Additional analyses with two independent samples provide evidence for the convergent and discriminant validity of the AIR subscales. For example, although people who were high on the AIR subscales saw their partners in a more positive light, they did not see the typical partner any more positively than those who were reported experiencing less appreciation. We also found evidence that we can distinguish between

Table 2
Final Items in the Appreciation in Relationships (AIR) Scale With Factor Loadings, Corrected-Item-Total Correlations, Means, and Variances

AIR scale	Factor loading	Cross-loading	Corrected-item-total correlation	M	Variance
Appreciative subscale					
1. I tell my partner often that s/he is the best.	.70	.26	.61	5.26	1.61
2. I often tell my partner how much I appreciate her/him.	.72	.27	.65	5.79	1.24
3. At times I take my partner for granted. (R)	.50	.01	.45	4.19	1.77
4. I appreciate my partner.	.64	.41	.61	6.35	0.84
5. Sometimes I don't really acknowledge or treat my partner like s/he is someone special. (R)	.52	.03	.49	4.96	1.75
6. I make sure my partner feels appreciated.	.79	.25	.76	5.65	1.27
7. My partner sometimes says that I fail to notice the nice things that s/he does for me. (R)	.46	.18	.47	4.75	1.98
8. I acknowledge the things that my partner does for me, even the really small things.	.65	.19	.63	5.80	1.14
9. I am sometimes struck with a sense of awe and wonder when I think about my partner being in my life.	.30	.09	.20	5.10	1.50
Appreciated subscale					
10. My partner makes sure I feel appreciated.	.86	.23	.83	5.38	1.48
11. When I am with my partner, sometimes s/he will look at me excitedly and tell me how much s/he appreciates me.	.75	.21	.70	5.23	1.71
12. My partner often tells me the things that s/he really likes about me.	.72	.20	.68	5.23	1.57
13. At times my partner takes me for granted. (R)	.57	.26	.56	4.53	1.90
14. My partner often expresses her/his thanks when I do something nice, even if it's really small.	.71	.25	.68	5.36	1.48
15. My partner doesn't notice when I do nice things for her/him. (R)	.65	.18	.62	4.98	1.66
16. My partner makes me feel special.[a]					

Note. The appreciative subscale includes two items assessing people's appreciative attitudes (Items 3 and 9) and seven items assessing people's appreciative behaviors (Items 1, 2, 4, 5, 6, 7, 8). R = reverse scored.
[a] Item added to AIR Scale based on self-reported lay experiences.

the two AIR subscales: Consistent with attachment theory (Hazan & Shaver, 1987), people who were higher in attachment anxiety reported feeling less appreciated by their partners, but not less appreciative of them. In the remainder of this article we use the AIR Scale along with daily measures of appreciation to examine the extent to which feeling appreciated by one's partner and being appreciative of one's partner promote the maintenance of romantic bonds.

Study 1

In Study 1, we examined the first three components of our proposed model (Paths A–C) by assessing the link between appreciation and responsiveness in a combined cross-sectional and 14-day daily experience study of individuals in romantic relationships. The ability to be responsive to a partner's needs is a valuable quality in a relationship partner (Murray et al., 2006), and expressing responsiveness to a partner through understanding, validating, and caring behaviors is critical for the successful maintenance of ongoing romantic bonds (Laurenceau, Barrett, & Rovine, 2005; Maisel & Gable, 2009; Reis, Clark, & Holmes, 2004; Reis & Shaver, 1988). We examined associations between appreciation and responsiveness in two ways: First, we assessed whether the AIR Scale was associated with responsiveness to a partner's needs using individual difference measures gathered prior to the daily experience study. Second, we examined the associations between daily reports of appreciation and responsiveness using lagged-day analyses. This daily portion of the study is critical because it allowed us to assess the temporal sequence of our model by examining changes in appreciation and relationship maintenance from one day to the next.

Table 3

Convergent and Discriminant Validity of the Appreciation in Relationships Scale

Variable	1	2	3	4	5	6	7	8	9	10
1. Appreciated	—	.54***	.35***	.57***	.01	.57***	−.01	−.33**	−.52***	.63***
2. Appreciative	.57***	—	.45***	.62***	.07	.55***	−.06	−.54***	−.13	.56***
3. Grateful disposition	.34*	.25*	—	.38***	−.07	.37***	.16	−.46***	−.30**	.46***
4. Gratitude	.61***	.60***	.51***	—	.24*	.54***	−.11	−.40***	−.18†	.51***
5. Indebtedness	−.01	.19	−.28*	−.11	—	−.00	−.06	−.03	.22*	−.05
6. Partner positive traits	.47***	.55***	.35**	.54***	.03	—	.02	−.45***	−.41***	.54***
7. Typical partner positive traits	−.01	.09	.35**	.16	.09	.16	—	.07	−.03	−.04
8. Attachment avoidance	−.45***	−.58***	−.14	−.61***	−.13	−.41***	.07	—	.30**	−.69***
9. Attachment anxiety	−.48***	−.11	−.17	−.26†	−.01	−.22*	−.10	.26*	—	−.46***
10. Satisfaction	.54***	.66***	.35**	.67***	.12	.56***	−.00	−.56***	−.26*	—

Note. Correlations above the diagonal are from Sample C ($N = 93$); correlations below the diagonal are from Sample D ($N = 79$, except $N = 50$ for gratitude and indebtedness).

† $p < .10$.   * $p < .05$.   ** $p < .01$.   *** $p < .001$.

In both the cross-sectional and daily analyses we assessed whether feeling appreciated by one's partner promotes one's own appreciative feelings (Path A), being more appreciative of one's partner predicts greater responsiveness (Path B), and appreciative feelings mediate the link between feeling appreciated and being responsive (Path C). Across analyses we tested whether results held when controlling for relationship satisfaction. Both AIR subscales were highly correlated with satisfaction in our AIR Scale creation and validation study, and we wanted to rule out the alternative hypothesis that feelings of appreciation are simply a manifestation of people's satisfaction with their relationship.

Method

Participants and procedure. The sample consisted of 78 undergraduates (65 women, 13 men) at the University of California, Berkeley, who were currently in romantic relationships. The sample was 59% Asian/Asian American, 21.8% European/European American, 5.1% Hispanic, 3.8% African/African American, and 10.3% of other races/ethnicities or no reported ethnicity. The participants were nearly 21 years old on average ($SD = 2.51$; range: 18–32) and had been involved in their current relationships for 1 year and 8 months on average ($SD = 22.54$ months; range: 1 month to over 12 years). Nearly 3% of participants were married, 15% were cohabitating, 3% were engaged, and 37% were in long-distance relationships.

Interested participants were directed to an online website where they completed demographics as well as background measures of appreciation, responsiveness, and satisfaction. They were then given a link that directed them to an online survey to be filled out every night for 14 consecutive nights before going to bed. Each night, participants answered questions about their romantic relationships, including their feelings of appreciation, responsiveness, and satisfaction. Participants were sent e-mail reminders each night between 8 p.m. and 10 p.m. Diaries completed before 6 p.m. or after 6 a.m. were not included in the final analyses. Three participants did not have an adequate number of diaries to be included in the daily experience analyses. The remaining participants completed 908 diaries on time, an average of 12.1 days per person. Forty-three of the 75 participants (57.3%) completed all 14 diaries on time. Participants were given psychology course credit for their participation.

Background measures. In the initial online survey, participants completed a questionnaire with basic demographic information. Participants completed the AIR Scale (appreciative, $\alpha = .87$; appreciated, $\alpha = .91$; subscales correlated, $r = .72$, $p < .001$), as well as the four-item version of the relationship satisfaction measure used during the validation of the AIR Scale (Funk & Rogge, 2007; $\alpha = .94$) and a six-item measure of responsiveness (adapted from Canevello & Crocker, 2010; $\alpha = .89$). The responsiveness items were rated on 7-point scales ($1 = not\ at\ all$ to $7 = very\ much$) and included statements such as "I try to make my partner feel comfortable about him/herself and how he/she feels," "I really try to understand my partner's concerns," and "I behave warmly and affectionately toward my partner."

Daily measures. The daily diary measures were kept brief (sometimes measured with only single items) to maintain participant motivation and maximize responses (Reis & Gable, 2000).

Appreciation. Participants were asked to rate how true the following statements were on scales from 1 (*not at all true*) to 5 (*completely true*): "Today, I felt very appreciated by my partner" and "Today, I felt very appreciative of my partner."

Responsiveness. Participants completed five items assessing their responsiveness that day (for similar scales, see Lemay & Clark, 2008; Peetz & Kammrath, 2011). They were given the prompt "Today, how much did you feel like . . ." and responded to the following four statements on scales from 1 (*not at all*) to 5 (*completely*): "You put your partner's needs and concerns above your own?" "You were able to be there for your partner if s/he needed you?" "You were focused on your own needs and concerns?" (reverse scored), and "You prioritized your own needs over your partner's?" (reverse scored). They also responded to the statement "Today, I was thoughtful and responsive to my partner's needs" on a scale from 1 (*not true at all*) to 5 (*very true*). All five items were averaged together to create a single responsiveness score (average within-day $\alpha = .77$).

Relationship satisfaction. Participants responded to the statement "Today I think that our relationship was . . ." on a scale from 1 (*terrible*) to 5 (*terrific*), which has been used in previous daily experience studies (e.g., Gable & Poore, 2008; Gable, Reis & Downey, 2003).

Results and Discussion

Data-analytic strategy. In this study, we analyzed cross-sectional data collected in the background survey and daily data collected in the daily experience study. We analyzed the cross-sectional data using traditional linear regression. We analyzed the daily experience data with multilevel modeling using the HLM computer program (Version 6.04; Raudenbush, Bryk, Cheong, Congdon, & du Toit, 2004) to control for dependencies in the same person's reports across days. Error terms for the intercepts at Level 1 were allowed to vary at Level 2 (Bolger, Davis, & Rafaeli, 2003). Since our proposed model has a time course, we conducted lagged-day analyses to examine the temporal sequence across days (West, Biesanz, & Pitts, 2000). For example, to examine whether feeling appreciated promotes appreciative feelings, we constructed a hierarchical linear model equation in which we predicted today's appreciative feelings from yesterday's feelings of being appreciated, controlling for yesterday's appreciative feelings. By controlling for yesterday's outcome variable, we were able to test whether our predictor is associated in changes in our outcome variable from one day to the next.

Evidence for Paths A–C in our process model. People who felt more appreciated by their partners reported being more appreciative of them in both the background and daily experience data, providing initial evidence for Path A in our model. In the background survey, people who reported feeling more appreciated by their partners were significantly more likely to report being appreciative of their partners relative to people who reported feeling less appreciated, $\beta = .72$, $t(71) = 8.65$, $p < .001$. Similarly, in the daily experience study, on days when people reported feeling more appreciated, they experienced increases in their own appreciative feelings the following day after controlling for their own appreciative feelings the previous day, $\beta = .21$, $t(521) = 3.12$, $p < .01$. In other words, feeling appreciated by a partner was associated with increases in feeling appreciative from one day to the next. Moreover, both of these effects remained significant when controlling for people's feelings of satisfaction (appreciated $ps < .05$; satisfaction $ps < .14$).

We also found evidence for Path B in our process model. In the background survey, people who were more appreciative of their partners, as measured by the AIR Scale, reported being more responsive to their partner's needs, $\beta = .59$, $t(71) = 6.11$, $p < .001$. Moreover, analyses of the daily experience data revealed that on days when people reported feeling more appreciative, they experienced increases in responsiveness the following day, $\beta = .17$, $t(524) = 4.42$, $p < .001$. These effects remained significant when controlling for relationship satisfaction ($ps < .01$). In fact, when accounting for appreciative feelings, satisfaction was only a marginally significant predictor of responsiveness in the cross-sectional data, $\beta = .23$, $t(70) = 1.88$, $p < .07$, and did not predict changes in responsiveness at the daily level ($\beta = .01$, $t < 1$), suggesting that the extent to which people feel appreciative of their partners may be a better predictor of relationship maintenance than people's feelings of satisfaction.[2]

After obtaining evidence for Paths A and B, we tested our hypothesis that appreciative feelings would mediate the link between feeling appreciated by one's partner and being more responsive (Path C in our process model). Table 4 displays the results of the mediational analyses in Studies 1–3. In the cross-sectional

Table 4

Appreciative Feelings Mediate the Link Between Feeling Appreciated and Relationship Maintenance in Studies 1–3

Outcome	a	b	c	c′	95% CI
Study 1					
Cross-sectional					
Responsiveness	.72***	.68***	.36**	−.13	[.20, .62]
Lagged day					
Δ Responsiveness	.87***	.26***	.11**	−.10	[.11, .34]
Study 2					
Lagged day					
Δ Commitment	.69***	.11*	.05	−.01	[.01, .14]
Longitudinal					
Δ Commitment	.39*	.41*	.03	−.01	[.03, .48]
Dating instability	.39*	−.34*	−.41*	−.28†	[−.37, −.001]
Still together	.39*	1.10*	.50	.16	[.04, .84]
Study 3					
Observed responsiveness	.55***	.24*	.08	−.01	[.02, .26]
Observed commitment	.55***	.23**	<.01	−.07	[.05, .21]

Note. Estimates represent standardized regression estimates except for "still together" (binary outcome = 0 or 1); 95% confidence interval (CI) for the indirect effect is based on parametric bootstrapping (Preacher & Hayes, 2008) for cross-sectional and longitudinal data and the Monte Carlo method for assessing mediation (Preacher & Selig, 2010) for multilevel analyses, both with 20,000 resamples (significant at $p < .05$ when the CI does not include 0). a = path from appreciated to appreciative; b = path from appreciative to relationship commitment and responsiveness after controlling for appreciated; c = direct effect of appreciated on relationship commitment and responsiveness; c′ = effect of appreciated on relationship commitment and responsiveness after controlling for appreciative.
† $p < .10$.   * $p < .05$.   ** $p < .01$.   *** $p < .001$.

data, people's feelings of being appreciated were significantly associated with reports of being more responsive to one's partner's needs, but this association was no longer significant when taking into account people's appreciative feelings. Likewise, in the daily experience data, on days when people felt more appreciated by their partners, they reported greater responsiveness the following

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[2] We also ran additional analyses controlling for relationship duration. Across studies, all of our results remained significant after accounting for relationship duration. In addition, we examined whether our findings varied by relationship status (long distance vs. proximal relationship) or gender. We did not find consistent effects across studies.

The appreciative and appreciated subscales share only a few items with similar wording; therefore it is possible that differences between our two subscales reflect differences in item wording rather than theoretically meaningful differences between being appreciative and feeling appreciated. To rule out this possibility, we conducted our analyses with subscales that included only those items that matched across subscales. Our findings held when using these smaller, matching subscales, although the results were weaker for the appreciative subscale, since most of the attitudinal items were removed. We also tested cross-partner effects in Study 3 and found that one person's appreciative feelings were more strongly related to his or her partner feeling appreciated ($r = .38$, $p < .01$) than were that person's feelings of being appreciated ($r = .17$, $p > .17$), providing further evidence that the two subscales represent theoretically distinct constructs, as opposed to simply reflecting differences between the way the items were worded in each subscale.

day, and these effects were no longer significant when accounting for people's appreciative feelings that day. In other words, feeling appreciated by one's partner appears to promote one's own appreciative feelings, which, in turn, promote responsiveness to a romantic partner's needs. To test for the significance of our mediations, we constructed a 95% confidence interval (CI) for each indirect effect using bootstrapping techniques (Preacher & Hayes, 2008; Preacher & Selig, 2010). Bootstrap analyses are more sensitive tests of mediation relative to other methods, and this type of analysis increases power and maintains control over the Type I error rate (Preacher & Hayes, 2008). The null hypothesis of no mediation stipulates that the estimate for the indirect effect is 0. When 0 is not included in the CI, the null hypothesis is rejected. In both cases, as shown in Table 4, the CIs did not include 0, providing further evidence that feeling appreciated influences relationship maintenance through increased appreciative feelings.

In summary, this study provides initial evidence from both cross-sectional and daily experience data for the first three paths in our proposed model of appreciation and relationship maintenance. People who felt more appreciated by their partners reported being more appreciative of them, and these appreciative feelings were associated with greater responsiveness to a partner's needs. These findings support and extend a growing body of research on risk regulation by showing that feeling appreciated by a romantic partner provides people with a sense of security in their relationship necessary to allow them to focus on their partner's worth and value. In turn, this awareness of a partner's value boosts people's desires to maintain their relationships, such that they are more responsive to their partner's needs, even to the point of prioritizing their partners' needs over their own. Moreover, none of these effects were a function of people's global satisfaction with their relationships, allowing us to rule out the possibility that appreciation promotes the desire to maintain valued relationships simply because appreciative people are more satisfied. The lagged-day analyses provide evidence for a temporal sequence across days, but a crucial next step in this work is to examine the effects of appreciation on the maintenance of relationships over a longer period. In addition, another important next step will be to determine whether appreciation has similar associations with other indicators of relationship maintenance as well as with the actual stability of romantic relationships over time.

Study 2

In Study 2 we built upon our previous results by conducting a combined daily experience and longitudinal study in which we assessed the associations between appreciation and two new indicators of relationship maintenance: relationship commitment and relationship stability. Relationship commitment represents a global motivation to think and behave in ways that will help maintain one's relationship (Lydon & Zanna, 1990) and is a robust predictor of positive relationship behaviors and outcomes (e.g., Drigotas, Safstrom, & Gentilia, 1999; Johnson & Rusbult, 1989; Linardatos & Lydon, 2011). Relationship stability indexes whether people have considered dissolving or have dissolved their relationships, an important objective measure of relationship maintenance. Participants completed measures of appreciation and relationship commitment for 7 consecutive nights. They also completed indi-

vidual difference measures of appreciation, commitment, and relationship stability 9 months apart.

As in Study 1, we tested the first three paths of our model, assessing whether feeling appreciated by one's partner promotes one's own appreciative feelings (Path A) and being appreciative of one's partner forecasts increases in relationship commitment from one day to the next and over 9 months (Path B). We also assessed whether people who were more appreciative at baseline were more likely to still be in their relationships at the 9-month follow-up (Path B). Finally, we assessed whether appreciative feelings mediated the link between feeling appreciated and maintaining one's relationship (Path C). As in Study 1, we reran our analyses controlling for relationship satisfaction to rule out the possibility that our measures of appreciation are simply tapping into people's feelings of satisfaction with their relationships.

Method

Participants and procedure. The sample consisted of 99 undergraduates (83 women, 16 men) at the University of California, Berkeley, who were currently in romantic relationships. The sample was 29.1% European/European American, 47.6% Asian/Asian American, 12.6% Hispanic, and 10.7% of other races/ethnicities. The participants were 20 years old on average ($SD = 2.0$; range: 18–30) and had been involved in their current relationships for 1.5 years on average ($SD = 15.4$ months; range: 1 month to over 5 years). Four percent of participants were married, 18% were cohabitating, 2% were engaged, and 43% were in long-distance relationships.

Interested participants were directed to an online website where they completed baseline measures of appreciation, commitment, and satisfaction. They were then given a link that directed them to an online survey to be completed every night for 7 consecutive nights before going to bed. Each night, participants answered questions about their romantic relationships, including their feelings of appreciation, commitment, and satisfaction. Participants were sent e-mail reminders each night between 8 p.m. and 10 p.m. Diaries completed before 5 p.m. or after 6 a.m. were not included in the final analyses. Participants completed 606 diaries on time, an average of 6.12 (out of 7) days per person. Seventy-five of the 99 participants (76%) completed all seven diaries on time. Participants were given psychology course credit for their participation.

Nine months after completing the daily experience study, participants were recontacted and provided with a link to an online follow-up survey. Of the 99 participants who provided background and diary data, 51 participants (52%) completed the follow-up survey. Participants who completed and did not complete the follow-up did not significantly differ in baseline appreciation, satisfaction, or commitment. Fourteen participants (27%) indicated that they had broken up with their partner by the follow-up. As compensation for completing the follow-up survey, participants were entered into a raffle for a chance to win a $100 prize.

Background measures. In the initial online survey, participants completed a questionnaire with basic demographic information, as well as the same measure of relationship satisfaction ($\alpha = .89$) used in Study 1. Appreciation was measured with the AIR Scale (appreciative, $\alpha = .81$; appreciated, $\alpha = .86$; subscales correlated, $r = .45$, $p < .001$). Relationship commitment was measured with a standard seven-item measure of relationship

commitment (Rusbult, Martz, & Agnew, 1998). They completed items such as "I want our relationship to last for a very long time" on 9-point scales (1 = *do not agree at all* to 9 = *agree completely*). In this sample, α is .90.

Daily measures. As in Study 1, the daily diary measures were kept brief and assessed with 5-point scales. Relationship satisfaction was measured with the same item from Study 1.

Appreciation. Participants rated the extent to which they felt appreciative and appreciated that day.

Relationship commitment. Participants responded to the question "Today, how much did you feel like you were highly committed to your relationship?"

Follow-up measures. At the 9-month follow-up, participants reported whether they were still with the same partner. If they were still together, they completed the same measures of appreciation (appreciative, α = .76; appreciated, α = .90; r = .63, p < .001) and commitment (α = .91) assessed at baseline. They also completed a measure of dating instability (adapted from Booth, Johnson, & Edward, 1983; see Impett et al., 2010, for a similar measure; α = .84), which included the items "In the past month, have you considered breaking up with your romantic partner?" and "In the past month, have you and your partner discussed the possibility of breaking up?" measured on 5-point scales (1 = *not at all* to 5 = *very much*).

Results and Discussion

Data-analytic strategy. Since the daily experience data had up to 7 data points nested within participants, we used the same data-analytic strategy described in Study 1 (HLM 6.04; Raudenbush et al., 2004). To assess whether appreciation influenced commitment and stability at the 9-month follow-up, we conducted a series of longitudinal analyses using multiple regression. The analyses with relationship commitment were similar to the lagged-day analyses in that we controlled for relationship commitment at baseline, allowing us to examine whether appreciation predicted changes in relationship commitment over time. We used logistic regression to assess whether people's feelings of appreciation at baseline predicted whether they were still with their partners at the follow-up.

The AIR Scale over time. The AIR Scale had strong test–retest reliability from baseline to the 9-month follow-up (appreciative r = .61, p < .001; appreciated r = .71, p < .001). Paired-samples t tests revealed that people's appreciative feelings declined significantly from baseline to follow-up (baseline mean = 5.60, follow-up mean = 5.31), t(35) = 2.14, p < .05, and there was a marginally significant decline in feeling appreciated by one's partner (baseline mean = 5.36; follow-up mean = 5.09), t(35) = 1.76, p = .09, consistent with existing research showing that relationship quality tends to decline over time (e.g., Bradbury, Fincham & Beach, 2000; Huston, McHale, & Crouter, 1986).

Evidence for Paths A–C in our process model. Analyses of the daily experience data provided additional evidence for Path A in our process model. On days when people reported feeling more appreciated, they experienced increases in their own appreciative feelings the following day, relative to days when people felt less appreciated, β = .15, t(463) = 2.59, p = .01. These effects remained significant after controlling for people's relationship satisfaction that day (appreciated p < .05, satisfaction t < 1).

Analyses of the longitudinal data revealed that the extent to which people felt appreciated by their partners at baseline did not predict changes in their own appreciative feelings across 9 months (β = .10, t < 1). This finding suggests that the effects of feeling appreciated may be more immediate, accounting for changes in one's appreciative feelings in the moment, but not necessarily over the long term. However, our small sample size prevents us from drawing firm conclusions about this null effect.

We also received additional support for Path B in our proposed process model, that is, that appreciative feelings promote relationship maintenance. Analyses of the daily experience data revealed that on days when people reported feeling more appreciative of their partners, they experienced increases in their commitment to their relationship the following day, β = .10, t(459) = 2.62, p < .01. Appreciative feelings also predicted changes in commitment over time in the longitudinal data: The extent to which people felt appreciative of their partners at baseline was associated with greater commitment at the 9-month follow-up, after controlling for commitment at baseline, β = .41, t(33) = 2.41, p < .05. That is, people who felt more appreciative of their partners at baseline experienced increases in commitment across 9 months relative to those who felt less appreciative at baseline. Effects remained significant or marginally significant when controlling for baseline satisfaction (daily p < .06; follow-up p < .05). In fact, as in Study 1, when accounting for appreciative feelings, satisfaction did not significantly predict changes in commitment in daily life or over time (ts < 1.10, ps > .27).

We also examined the link between appreciation and relationship maintenance by testing whether appreciative feelings predicted the stability of relationships over time. People who were more appreciative of their partners at baseline were less likely to report thinking about or discussing a possible breakup with their partner 9 months later, β = −.45, t(34) = 2.94, p < .01. Most critically, people who were more appreciative of their partners at baseline were significantly more likely to still be in their relationships at the follow-up, relative to people who were less appreciative (B = 1.27, Wald χ² = 7.60, p < .01; odds ratio = 3.58, 95% CI [1.45, 8.85]). That is, for each unit increase in appreciative feelings, people were 3.58 times more likely to still be in their relationships 9 months later. As in the previous analyses, both of these effects remained significant or marginally significant after controlling for satisfaction (dating instability p < .01; still together p < .10). In contrast, when accounting for appreciative feelings, satisfaction only predicted whether people were still in their relationships (dating instability β = .02, t < 1; still together B = 1.13, Wald χ² = 4.36, p < .05).

In our final set of analyses, we tested our hypothesis that appreciative feelings would mediate the link between being appreciated and experiencing greater commitment and relationship stability, as represented by Path C in our process model. As shown in Table 4, which includes results of the mediational analyses, people's feelings of being appreciated did not significantly predict changes in commitment from one day to the next, nor over time. However, even in the absence of a direct effect, a significant indirect effect provides evidence of mediation (Shrout & Bolger, 2002; Zhao, Lynch, & Chen, 2010), and as in Study 1, we found significant evidence for the predicted indirect effects. That is, one of the ways in which feeling appreciated by one's partner influ-

ences commitment to and persistence in one's relationship is by enabling people to focus on their own appreciative feelings.

In this study, we again found evidence for a risk regulation approach to appreciation, such that people became more appreciative of their partners when they felt appreciated by them. In turn, people who were more appreciative of their partners were more likely to take the risky step of maintaining their commitment to their relationships over time. This study also provided evidence for the role of appreciation in another way, by showing that appreciation influences not just how people think and act in their relationship, but also whether they actually remain in their relationships over time. If appreciation serves as a barometer for relationships, helping people gauge when to self-protect and when to invest, then people who experience more appreciation in their relationships should be more likely to remain in their relationships over time. Indeed, we found that people who were more appreciative of their partners were significantly more likely to still be in their relationships at the 9-month follow-up.

The results of the studies we have reported thus far are limited, however, in that they all rely on the use of self-report data. Indeed, all existing research on gratitude in relationships has relied exclusively on self-report measures; an important next step in this line of work is to ensure that the overlap between appreciation and relationship outcomes is not simply due to semantic overlap between measures. In addition, our first three studies included data from only one member of a couple. Dyadic data are necessary to test the interpersonal components of our process model concerning how appreciation is communicated from one romantic partner to another. We address these limitations in Study 3.

Study 3

The primary objective of our final study was to examine whether appreciation influences behavioral responses to a partner's needs as well as expressions of commitment during dyadic interactions in the laboratory. To this end, we brought couples into the laboratory to take part in videotaped conversations about important topics in their relationships. We expected to replicate our previous findings that people who are more appreciated by their partners are more appreciative of them (Path A). We also expected to find that people who are more appreciative of their partners are seen by outside observers as more responsive and committed to their romantic partners during dyadic interactions (Path B), and that appreciative feelings mediate the link between feeling appreciated and being more responsive and committed during interactions (Path C). In addition to replicating our previous findings, we tested the last two paths in our model concerning the interpersonal transmission of appreciation. Specifically, we examined whether people feel more appreciated by partners who are seen as more responsive and committed (Path D) and whether these observed behaviors are one way in which appreciation is communicated from one partner to the other (Path E). Thus, this final study tests each of the critical paths in our model of dyadic appreciation processes in romantic relationships.

Method

Participants and procedure.   As part of a larger study of romantic couples (Impett et al., 2010), both members of 63 het-

erosexual dating couples were recruited from the San Francisco Bay Area by means of online flyers posted on Craigslist.org and paper flyers placed throughout the Bay Area. Participants comprised a diverse range of ethnic backgrounds: 52% European/European American, 20% Chinese/Chinese American, 8% African/African American, 5% Mexican/Mexican American, and 15% other races/ethnicities. On average, participants were 24 years old ($SD = 6.7$; range: 18–60) and had been dating for over 2 years ($SD = 24.4$ months; range: 2 months to 8 years). Forty-eight percent were cohabitating.

After both partners agreed to take part in the study, the participants were e-mailed a web link to a background survey to be completed before the couple arrived at the laboratory. Couples came to the laboratory, completed self-report measures, and then participated in several videotaped interactions. We experienced problems with the audio equipment during 14 of the 63 couples' laboratory sessions, limiting our final sample for observational data to 49 couples. The couples engaged in six conversations made up of three topics in which each partner took a turn being the "speaker" (one conversation) and the "listener" (a second conversation). Each member of the couple was asked to recall a time when he or she had engaged in a sacrifice for his or her partner, a time when he or she had felt a lot of love for his or her partner, and a time when he or she had experienced suffering. Each partner took turns being the speaker and the listener. The mean length of the conversations was 3 min 37 s ($SD = 1$ min 10 s; range: 51 s to 8 min 22 s). Speaking order for the conversations was randomly assigned through a coin toss. Each member of the couple was paid $20.

Couples were seated in two chairs in a private room with the chairs angled to face each other. Two cameras were mounted on the wall, with one camera pointed at each participant at an angle to allow for a full frontal recording. The cameras were visible to the couple and captured an image of the participants from the top of their heads to their laps. The cameras were controlled by research assistants in an adjacent control room who could see and hear the activities in the experiment room and communicate with the couples via an intercom.

Background measures.   Appreciation was measured with the AIR Scale on a 5-point scale (appreciative, $\alpha = .82$; appreciated, $\alpha = .86$; subscales correlated, $r = .53$, $p < .001$).[3] Relationship satisfaction was measured with five items such as "I feel satisfied with our relationship" (Rusbult et al., 1998; $\alpha = .89$) on 7-point scales.

Observer ratings of responsiveness and commitment in semistructured conversations.   Two coders independently coded the listener for three aspects of responsiveness (i.e., understanding, validation, and caring) using a coding scheme developed by Maisel, Gable, and Strachman (2008). Coders indicated the extent to which listeners seem to *understand* their partners' experiences (i.e., ask clarifying questions about the experience, nod along with partner, "mmhmm"), *validate* their partners' experiences (i.e., acknowledge that it was an important experience,

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[3] Due to the nonindependent nature of our dyadic data, when calculating correlations we used the pairwise data entry method and calculated Pearson's r, adjusting the standard error to $1/\sqrt{n}$ and treating the resulting test statistic as a Z statistic (Kenny, Kashy, & Cook, 2006).

validate the partner's identity and feelings), and express *caring* toward their partners (i.e., express commitment to partner, say "I love you") on 7-point scales (1 = *not at all* to 7 = *a great deal*). The coders overlapped on one third of the conversations (intraclass correlations = .79, .70, and .77 for understanding, validation, and caring, respectively). We combined the three codes for each conversation into one overall responsiveness code for that conversation (Maisel et al., 2008), and averaged the responsiveness codes across the three conversations to yield a single responsiveness score (α = .68).

Three coders independently coded the observed commitment of both partners during all six conversations. The coders indicated the extent to which each partner is "committed to maintaining the relationship with their partner" on a 7-point scale (1 = *not at all* to 7 = *a great deal*). The coders overlapped on 100% of the conversations (average intraclass correlation = .81). We created two composite scores for each participant by averaging across the three conversations in which they were the speaker (α = .80) and the three conversations in which they were the listener (α = .76). The two composites were highly correlated (r = .93, p < .001), so we averaged them to create a single composite score of observed commitment.

Results and Discussion

Data-analytic strategy. Since this study included both members of dating couples, violating assumptions of independence, we analyzed the data using multilevel modeling with PASW 18.0 mixed models (IBM SPSS, 2009). This analysis strategy assumes that data from two members of a couple are not independent and treats the dyad rather than the individual as the unit of analysis.

Additional evidence for the validity of the AIR Scale. The collection of dyadic data in this final study allowed us to provide additional evidence for the validity of the AIR Scale by examining cross-partner associations between the AIR subscales. Results showed that the extent to which partners felt appreciative of each other were positively associated (r = .38, p < .01), but the extent to which the two partners felt appreciated by each other was not significantly correlated (r = .17, *ns*). Most critically, people who reported feeling more appreciative of their partners had partners who felt more appreciated by them, β = .50, $t(66)$ = 5.87, p < .001, and this association remained significant even when controlling for satisfaction: appreciative, β = .41, $t(62)$ = 4.37, p < .001; satisfaction, β = .09, $t(59)$ = 2.52, p < .05.[4]

We also tested whether people's appreciative feelings predicted the extent to which their partners felt appreciated beyond their partners' own appreciative feelings (Lemay & Clark, 2008; Lemay, Clark, & Feeney, 2007). We found that even when taking into account the link between one's own appreciative and appreciated feelings, one partner's appreciative feelings continued to significantly predict the other partner's feelings of being appreciated, β = .23, $t(76)$ = 2.54, p < .05, suggesting that the AIR Scale is capturing the interpersonal transmission of appreciation from one partner to the other. In short, people's feelings of being appreciated are informed by their partners' appreciative feelings.

Evidence for Paths A–E in our process model. In line with the results of our previous two studies, we received additional support for Path A: People who felt more appreciated by their partners reported being more appreciative, β = .53, $t(119)$ = 6.90,

p < .001, and this effect held when controlling for relationship satisfaction: appreciated, β = .31, $t(113)$ = 3.73; satisfaction, β = .36, $t(121)$ = 4.22, both ps < .001.

Corroborating our previous self-report findings and providing additional support for Path B, people who were more appreciative of their partners were seen as more responsive, β = .24, $t(86)$ = 2.57, p < .05, and more committed, β = .21, $t(66)$ = 3.25, p < .01, by outside observers as they interacted with their partners in the laboratory. As in the previous studies, these effects held when controlling for satisfaction (βs > .18, ps < .05). In fact, relationship satisfaction was not a significant predictor of either observed variable when accounting for appreciative feelings (βs < .08, ps > .35).

Tests of mediation provided additional support for our hypothesis that appreciative feelings mediate the link between feeling appreciated and relationship maintenance (Path C in our process model). As in Study 2, feelings of being appreciated did not directly predict observed responsiveness and commitment. However, as shown in Table 4, we found significant indirect effects of appreciated feelings on observed responsiveness and commitment through people's own appreciative feelings. That is, people who felt more appreciated reported being more appreciative and, in turn, exhibited more responsive behaviors and were seen as more committed as they interacted with their romantic partners in the laboratory.

This final study also provides evidence for the final two paths in our model, which focus on the transmission of appreciation between romantic partners. We found strong support for Path D, that is, that one partner's responsiveness and commitment were associated with the other partner's reports of feeling appreciated. People felt more appreciated by partners who were rated by outside observers as relatively more responsive to their partner's needs, β = .45, $t(66)$ = 4.90, p < .001, and committed to their relationships, β = .44, $t(60)$ = 4.66, p < .001. Furthermore, both of these observed variables remained significant predictors when they were entered simultaneously (βs = .24, ps < .05), suggesting that behavioral displays of responsiveness and commitment uniquely influence people's feelings of being appreciated by their partners.

We also found evidence for our hypothesis that behavioral displays of relationship maintenance are a critical way in which feelings of appreciation are transmitted from one partner to another

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[4] The empathic accuracy literature shows that women tend to demonstrate greater empathic accuracy than men in judging the emotions of their interaction partners (e.g., Acitelli, 1992; Briton & Hall, 1995; Hall & Schmid Mast, 2008). In line with these findings, in Study 3 we found that gender moderated the extent to which a romantic partner's appreciative feelings predicted one's own feelings of being appreciated (β = .19, p < .05), such that the association was stronger for women (β = .75, p < .001) than for men (β = .34, p < .01). There were no other significant gender interactions in Study 3.

The degrees of freedom for our fixed effects were calculated with the Satterthwaite (1946) approximation. This method of approximation was recommended by Campbell and Kashy (2002) and yields degrees of freedom for each predictor that are somewhere between the number of dyads and the number of individuals in the study. The degrees of freedom can be fractional, and have been rounded to the nearest integer (Kenny et al., 2006).

(Path E). The link between one partner's appreciative feelings and the other partner's feelings of being appreciated were partially mediated by outside observer ratings of responsiveness and commitment: responsiveness, b path: $\beta = .34$, $t(54) = 4.06$, $p < .001$; c′ path: $\beta = .35$, $t(62) = 4.18$, $p < .001$; commitment, b path: $\beta = .30$, $t(46) = 3.62$, $p < .001$; c′ path: $\beta = .38$, $t(66) = 4.41$, $p < .001$. We used the Monte Carlo method for assessing mediation (Preacher & Selig, 2010) with 20,000 resamples to create 95% CIs for our indirect effects. Neither CI included 0, providing additional evidence of partial mediation (responsiveness, 95% CI [.02, .17]; commitment, 95% CI [.02, .12]). In other words, one of the ways in which appreciative people convey their feelings of appreciation to their partners is through behavioral displays of responsiveness and commitment. In turn, when people observe their partners as being more responsive and committed, they feel more appreciated.

In summary, the results of this final study showed that appreciation is associated with outside observer ratings of responsiveness and commitment as partners interact in the laboratory, corroborating our self-report findings from Studies 1 and 2. As in our previous studies, all our findings remained significant after controlling for relationship satisfaction. We also found evidence for the interpersonal components of our process model. Consistent with risk regulation and evolutionary analyses, people felt more appreciated by partners who were seen by outside observers as being committed and responsive to their partners' needs. Moreover, these behavioral displays were one way in which appreciation was communicated between partners. That is, when one partner felt appreciative and engaged in maintenance behaviors that transmitted his or her appreciation, the other partner felt more appreciated. Taking these findings one step further, the second partner's feelings of being appreciated should provide him or her with the sense of security needed to promote his or her own appreciative feelings. These feelings of appreciation should thus create an upward cycle whereby appreciation promotes relationship maintenance and relationship maintenance promotes appreciation.

General Discussion

In this multimethod investigation of romantic couples, we created a new measure of appreciation in relationships and provided evidence that two interrelated aspects of appreciation—feeling appreciated by one's partner and being appreciative of one's partner—are critical for relationship maintenance. Our findings extend recent research on close relationships that shows that cultivating a sense of thankfulness and gratitude for a partner and his or her kind deeds is vital for maintaining happy relationships over time (e.g., Algoe et al., 2010; Gordon et al., 2011; Kubacka et al., 2010). Drawing upon the risk regulation literature (Murray & Holmes, 2009; Murray et al., 2006), we proposed a model of appreciation and relationship maintenance whereby feeling appreciated by one's partner provides people with a sense of security that enables them to focus on their own appreciative feelings. In turn, being appreciative of one's partner helps people recognize the value in their relationships and promotes a desire to maintain one's relationship over time. We also proposed that relationship maintenance behaviors are one way in which appreciation is communicated between partners.

Studies 1–3 provided evidence for our proposed model. People who felt more appreciated by their partners were more appreciative of them in general, and from one day to the next. People who were more appreciative of their partners became more responsive (Study 1) and committed (Study 2) over time, and were seen as more responsive and committed as they interacted with their partners in the laboratory (Study 3). Most notably, people who felt more appreciative of their partners were more likely to still be in their relationships 9 months later, as compared with those who felt less appreciative (Study 2). Across Studies 1–3, appreciative feelings mediated the link between feeling appreciated by one's partner and maintaining one's relationship, suggesting that feeling appreciated helps people with relationship maintenance by giving them the security they need to recognize they have a valuable relationship worth maintaining.

We also found evidence for the interpersonal components of our model. We predicted that people feel most appreciated by partners who engaged in relationship maintenance behaviors, such as being more responsive, and that these behaviors are one way in which appreciation is communicated between romantic partners. Providing evidence for these paths in our model, we found that people felt more appreciated by partners who were rated by outside observers as being responsive and committed during dyadic interactions in the laboratory, relative to partners who were seen as less responsive and committed (Study 3). Moreover, these behavioral displays of responsiveness and commitment mediated the link between one partner's appreciative feelings and the other partner's reports of feeling appreciated, suggesting that maintenance behaviors such as these are a critical way in which appreciation is signaled between romantic partners.

Beyond Relationship Satisfaction

Our studies provide support for our model whereby appreciation influences relationship maintenance. However, there are alternative explanations for our findings. One main alternative explanation is that our measures of appreciation may have simply been tapping into people's satisfaction with their relationships. In other words, feeling appreciated by a partner could promote relationship maintenance not through enhanced appreciative feelings but through more general feelings of satisfaction with one's relationship. Indeed, in our creation and validation of the AIR Scale, we found that both the extent to which people felt appreciated by their partners and the extent to which they were appreciative of their partners were highly correlated with relationship satisfaction. To rule out this alternative explanation, in Studies 1–3 we reran all our analyses controlling for relationship satisfaction. Across studies, appreciation was associated with measures of relationship maintenance above and beyond relationship satisfaction. In fact, when accounting for appreciation, relationship satisfaction had very little impact on relationship maintenance. Why might this be? Research has shown that global beliefs about relationships do not always foretell whether relationships will last (Neff & Karney, 2005); instead, more specific evaluations about a partner's qualities are better predictors of later marital adjustment. Perhaps, then, people's appreciative feelings are a better predictor of the extent to which people are willing to engage in relationship maintenance, since appreciation is based on specific cognitions and behaviors, whereas satisfaction is a global evaluation. If this is the case, then

our research adds to a growing body of work by Neff and others highlighting the importance of taking into account the level of specificity when evaluating people's feelings about their relationships (Lee, Rogge, & Reis, 2010; Neff & Karney, 2005).

Extending the Gratitude Literature

Researchers have made broad strides in elucidating the central role of gratitude in promoting and maintaining high-quality romantic bonds (Algoe et al., 2010; Gordon et al., 2011; Kubacka et al., 2011). This work is grounded in earlier theorizing positing that gratitude is a moral affect that enables individuals to track the levels of generosity in relations with nonkin, to signal their cooperative intent to others, and to motivate committed behavior (McCullough et al., 2001). The current package of studies builds upon this rich vein of theory and provides both theoretical and methodological extensions to this growing body of work. In particular, we drew upon the advances made in studies of risk regulation to understand the dyadic processes by which feeling appreciated by one's partner and being appreciative of one's partner contribute to the maintenance of ongoing romantic relationships. Previous research on gratitude in relationships has primarily focused on the extent to which people feel a sense of gratitude or thankfulness for their partners and, in particular, their partners' kind and thoughtful deeds (e.g., Algoe et al., 2010). None of this work, however, has taken into account the other side of this dyadic experience, that is, the extent to which people feel appreciated by a romantic partner. Our work also considers the interpersonal process by which feelings of appreciation are transmitted or communicated from one partner to another in dyadic relationships. These findings extend the prior literature by showing that not only do appreciative feelings promote relationship maintenance behaviors, but relationship maintenance behaviors promote feelings of being appreciated in turn. At the dyadic level, appreciation may promote a positive upward cycle of mutual growth (Wieselquist et al., 1999), whereby each partner feels confident that he or she is in a relationship with a good, valuable partner and is thus more willing to engage in relationship maintenance. This type of upward cycle may eventually lead couples who experience more appreciation into more stable, happy relationships. Indeed, our results showing that appreciative feelings predict commitment and relationship stability 9 months down the road suggest that this upward cycle may have long-term effects.

The current work also makes methodological contributions to the growing literature on gratitude in close relationships. First, previous research in this area has focused exclusively on self-reported relationship quality and relationship maintenance (e.g., Algoe et al., 2010; Gordon et al., 2011; Kubacka et al., 2011). In the current research, we extend the literature by corroborating our self-report findings with results linking appreciation to observed indicators of relationship maintenance including responsiveness to a partner's needs and commitment to the relationship. By gathering observational data, we were able to show that people who are more appreciative of their partners behave in distinct and meaningful ways that distinguish them from those who are less appreciative, such as being more responsive listeners.

A second methodological contribution of the current article to the gratitude literature concerns our measures of relationship maintenance. To date, only one study has directly examined the link between appreciation and relationship maintenance in romantic relationships (Kubacka et al., 2011), and this study focused on the link between gratitude and self-reported relationship maintenance behaviors. We expanded on these findings by examining whether appreciation was associated with a host of unexplored cognitions and behaviors that help people maintain their relationships, including self-reported and observed responsiveness, commitment, and relationship stability. In particular, our finding linking appreciation to a behavioral outcome, whether or not a relationship persists, provides critical support for the notion that appreciation plays an important role in the maintenance of close bonds.

Extending the Risk Regulation Literature

The current work also makes important contributions to the literature on risk regulation. Risk regulation theory emphasizes the importance of feeling confident in a partner's regard before risking potential rejection by investing in a romantic relationship (Murray & Holmes, 2009; Murray et al., 2006). A number of studies provide support for this theory, showing that perceived regard is associated with more positive perceptions of one's partner and greater relationship quality (Murray et al., 2000, 2001, 2011). We extend this work by showing that the risk regulation model is relevant in a new domain—gratitude—and provide additional empirical evidence to show that people risk engaging in relationship maintenance when they feel appreciated by a valuable partner. We also expand on the previous research by showing that people who are more appreciative of their partners not only report experiencing higher quality relationships (Murray et al., 2001) but also think and act in a variety of ways that promote the successful maintenance of relationships over time. Our observational and behavioral findings also make important contributions to this literature, since, as with the literature on gratitude, the findings in the literature on risk regulation have relied primarily on self-report measures.

Another way in which our findings extend the literature on risk regulation is by showing that feeling appreciated by one's partner indirectly influences relationship maintenance through enhanced appreciative feelings. Upon first glance, this specific finding might appear to diverge from existing findings by Murray et al. (2001) that show that feeling loved by a partner and perceiving a partner positively have independent effects on people's satisfaction and optimism in their relationships. However, we do not believe that our findings are in contradiction with these results. Indeed, in validating the AIR Scale, we found that both feeling appreciated by one's partner and being appreciative of one's partner were associated with greater relationship satisfaction. Feeling appreciated by one's partner is a positive relationship experience and is likely to directly influence people's global evaluations of their relationships. People who do not feel appreciated by their partners are not likely to be very happy in their relationships. Thus, the extent to which people feel appreciated by their partners should directly impact their feelings of relationship satisfaction. In contrast, relationship maintenance thoughts and behaviors are focused on the desire to maintain one's relationship over time. Although people should be more likely to want to maintain a relationship when they have a partner who appreciates them, they should only think or behave in such a way to the extent that they also perceive their partner as someone who has long-term potential.

Limitations and Future Directions

The majority of participants in our studies were college students in relatively new relationships. Although we documented in national samples that appreciation is important even in longer term relationships (up to 33 years in length), and previous research suggests that not feeling appreciated is a top reason for divorce (Gigy & Kelly, 1992), there may be differences in the experience of appreciation in long-term marriages versus fledgling relationships. For example, relative to people in new relationships, partners who have made life-long commitments are likely to have stronger expectations that their partners will support them for better or worse (Mills & Clark, 1994), possibly leading them to feel less desire or pressure to express feelings of appreciation to their partners. Future research would benefit from a careful examination of the unique roles of appreciative and appreciated feelings in encouraging the maintenance of relationships that vary in both duration and degree of commitment.

The current research does not enable us to address the question of whether appreciation causes increases in relationship maintenance. We reason that many of the links between appreciation and relationship maintenance are likely to be reciprocal. For example, feeling appreciative of one's partner may promote greater commitment, but in turn, increased commitment may motivate people to see and find the good in their partners (Rusbult, Van Lange, Wildschut, Yovetich, & Verette, 2000). Our lagged-day and longitudinal analyses provide strong evidence for a directional link, but an experimental study is ultimately needed to more definitively establish causality.

Uncovering some of the dispositional and situational factors that influence feelings of appreciation will also help us better understand their role in promoting the maintenance of relationships. For example, we expect that people who are high in approach goals (Gable, 2006; Impett et al., 2010), and thus focused on the rewards that their relationships have to offer, may be particularly likely to notice the good in their partners. Aspects of a romantic partner should also influence people's feelings of appreciation. For example, people should be more appreciative of partners who have characteristics that are valuable in a mate (e.g., attractiveness, interpersonal skills). Future research is certainly needed to understand the host of factors that promote appreciation.

Finally, our research demonstrates some of the benefits of appreciation in the context of relatively healthy relationships. However, appreciation may not play the same beneficial role in relationships that are characterized by serious problems such as physical or emotional abuse. We are not suggesting that all people under all circumstances should try to find the best in their partners. In relationships in which one partner is experiencing abuse at the hands of the other, focusing on feeling appreciative would be incredibly harmful, if not dangerous. People are more likely to stay in abusive relationships to the extent that they idealize their partners and feel committed to their relationships (Lloyd, 1991; Rusbult & Martz, 1995), and future research is needed to examine whether unwarranted appreciation for a partner may help explain why some people choose to remain in dissatisfying or abusive relationships.

Conclusion

Whereas existing research suggests that appreciation is particularly important in the formation of relationships (Bar-Tal et al., 1977; McCullough et al., 2008), our research suggests that appreciation is beneficial for the health and maintenance of intimate romantic bonds. In this article, four studies with multiple methods provide converging evidence that appreciation influences relationship maintenance in daily life, in dyadic interactions, and over the course of time. Our research suggests that Adam Smith was certainly on to something when he commented on the central importance of gratitude in our lives; cultivating appreciation may be just what we need to hold onto healthy, happy relationships that thrive.

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