Trust and Biased Memory of Transgressions in Romantic Relationships

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Abstract

Relative to people with low trust in their romantic partner, people with high trust tend to expect

that their partner will act in accordance with their interests. Consequently, we suggest, they have

the luxury of remembering the past in a way that prioritizes relationship dependence over self-

protection. In particular, they tend to exhibit relationship-promoting memory biases regarding

transgressions the partner had enacted in the past. In contrast, at the other end of the spectrum,

people with low trust in their partner tend to be uncertain about whether their partner will act in

accordance with their interests. Consequently, we suggest, they feel compelled to remember the

past in a way that prioritizes self-protection over relationship dependence. In particular, they tend

to exhibit self-protective memory biases regarding transgressions the partner had enacted in the

past. Four longitudinal studies of participants involved in established dating relationships or

fledgling romantic relationships demonstrated that the greater a person's trust in their partner, the

more positively they tend to remember the number, severity, and consequentiality of their

partner's past transgressions—controlling for their initial reports. Such trust-inspired memory bias

was partner-specific; it was more reliably evident for recall of the partner's behavior than for

recall of one's own behavior following transgressions. Furthermore, neither trust-inspired memory

bias nor its partner-specific nature was attributable to potential confounds such as relationship

commitment, relationship satisfaction, self-esteem, or attachment orientations.

        Keywords: memory bias; trust; dependence regulation; transgressions; close relationships

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*Perhaps I did not always love him so well as I do now. But in such
cases as these a good memory is unpardonable.*
– Jane Austen (1813)

Sooner or later, romantic partners will almost inevitably do something that hurts or upsets

each other (Rusbult, Hannon, Stocker, & Finkel, 2005). How might their memories of such

transgressions change over time? Although many people presumably recall prior partner

transgressions in a veridical manner, others may do so in a biased manner, remembering them as

either less or more numerous, severe, and consequential than they initially experienced them to be.

For example, they may leave out details of past transgressions that are inconsistent with their

present positive or negative feelings about their partner; assimilate their initial impressions of prior

transgressions into positive or negative mental schemas; integrate the partner's hurtful behavior

within more important partner virtues or faults; add information that softens or exacerbates

recollections of prior transgressions; or actively reconstruct memories of transgressions,

developing positively or negatively toned edits of their initial impressions (e.g., Bartlett, 1932;

Loftus, Feldman, & Dashiell, 1995; Murray & Holmes, 1999; Ross, 1989; Schacter, 1999).

What Predicts Biased Memory in Close Relationships?

The growing body of research examining biased memory of events and developments in

close relationships has failed to identify a reliable predictor of biased memory. Several studies

have investigated the link between current feelings about the relationship and biased memory of

prior feelings about the relationship (e.g., Karney & Coombs, 2000; McFarland & Ross, 1987;

Sprecher, 1999). According to the sentiment override hypothesis (Weiss, 1980), individuals'

current general feelings about their relationship tend to color their memories of relationship events

and developments. That is, one's current positive sentiment can override memories of prior

negative events and feelings, or one's current negative sentiment can override memories of prior

positive events and feelings. In an early study that supported the sentiment override hypothesis, participants whose love for their partner declined over a two-month period recalled, at the end of this period, that they had loved their partner less at the beginning than was actually the case, whereas participants whose love for their partner increased over the two-month period recalled that they had loved their partner more at the beginning than was actually the case (McFarland & Ross, 1987). That is, they remembered feeling in the past much like they felt in the present. However, two other studies did not support the sentiment override hypothesis. In the first, participants who reported the most love for their partner were the most likely to underestimate the degree to which they had been in love with their partner one year earlier, perhaps to convince themselves that their love was on an upward trajectory (Sprecher, 1999). In the second, wives who were least satisfied with their relationship were the most likely to recall larger improvements in the emotional quality of their marriages over the past decade than was observed in their prospective reports over this time period (Karney & Coombs, 2000). To summarize, participants in the study reported by McFarland and Ross (1987) projected their current sentiments onto their memories of their prior sentiments, such that those who felt the most positively in the present were the most likely to overestimate their positive feelings in the past. On the contrary, participants in the studies reported by Sprecher (1999) and Karney and Coombs (2000) did not project their current sentiments onto their memories of their prior sentiments. Instead, those who felt the most positively in the present were the most likely to *under*estimate their positive feelings in the past. Together, these studies paint an inconsistent picture of the association of positive relationship affect (i.e., satisfaction and love) with biased memories regarding the relationship.

Studies examining the association of attachment orientations with memory bias of relationship events also have yielded inconsistent findings (Feeney & Cassidy, 2003; Gentzler & Kerns, 2006; Simpson, Rholes, & Winterheld, 2010). In the first such study, adolescents

participated in conflict discussions with each of their parents, rating their perceptions of the interactions immediately following the discussions and six weeks later (Feeney & Cassidy, 2003). Adolescents with a secure (relative to insecure) attachment orientation tended to exhibit positively biased memories of those conflict discussions six weeks later, although only two-thirds of the analyses reached statistical significance. In another study, participants reported on and rated their emotional reactions to positive and negative interpersonal events soon after they occurred and approximately 10 days later (Gentzler & Kerns, 2006). As expected, participants with a nonanxious (relative to anxious) attachment orientation exhibited positively biased memories of their emotional responses to positive events. But, contrary to expectations, they exhibited negatively biased memories of their emotional responses to negative events. In a third study, romantic partners discussed an area of conflict in their relationship, rating their own supportiveness and emotional distance immediately following the discussion and one week later (Simpson et al., 2010). Once again, attachment-congruent biased memory was observed under only some circumstances. Specifically, participants with a nonavoidant (relative to avoidant) attachment orientation remembered being more supportive of their romantic partner during the conflict discussion than they reported initially, and participants with a nonanxious (relative to anxious) attachment orientation remembered being less emotionally distant than they reported initially—but only among those who were relatively distressed during the discussion. Among those who were less distressed, trends in the opposite direction emerged: More avoidant participants remembered being *more* supportive and more anxious participants remembered being *more* distant than they initially reported. In short, although there is some evidence that people tend to exhibit increasingly attachment-congruent memories of relationship events over time, it is sporadic and coexists with findings indicating the opposite pattern. Thus, the association of attachment orientations with biased memories regarding relationship events is unclear.

Trust Predicts Biased Memory in Close Relationships

In sum, people frequently exhibit biased memories of relationship events and circumstances, and relationship-relevant variables (e.g., love, satisfaction, attachment orientations) can account for some of this bias. On the other hand, this literature lacks an integrative theoretical framework for understanding why relationship-relevant memory bias occurs and, perhaps consequently, it has yielded inconsistent results. In the present article, we introduce and test a general theoretical framework for understanding memory bias regarding perhaps the most important of relationship circumstances—those involving issues relevant to self-protection versus relationship-promotion. In particular, we suggest that the risk regulation model (Murray & Holmes, 2009; Murray, Holmes, & Collins, 2006, see also Murray & Holmes, 2011) provides the missing theoretical framework for the examination of biased memory of such relationship circumstances and identifies trust as the crucial predictor of such biased memory. According to this model, the conflicting goals of relationship-promotion and self-protection are evident in the dilemma romantic partners repeatedly encounter throughout their relationship. Should they work toward establishing and maintaining a fulfilling relationship by drawing closer to and becoming more dependent on their partner, even though doing so increases their likelihood of being hurt and rejected? Or, should they protect themselves from hurt and rejection by distancing themselves from and decreasing their dependence on their partner, even though doing so preempts them from experiencing a fulfilling relationship?

This general dilemma corresponds to the more specific research question at hand: Who can afford the luxury of reinterpreting past partner transgressions in a relatively benign light? Who cannot afford this luxury and, instead, reinterprets past partner transgressions in a relatively malign light? Those with relatively high and low trust in their partner, respectively. *Trust* is the expectation that a partner can be relied upon to be responsive to one's needs and to promote one's

best interests, both now and in the future (Holmes & Rempel, 1989; Rempel, Holmes, & Zanna, 1985; for reviews of conceptualizations of trust, see Simpson, 2007a, 2007b). Past experiences with a partner play an important role in determining trust in that partner (Wieselquist, Rusbult, Foster, & Agnew, 1999; Wieselquist, 2009). However, trust represents much more than a set of rational expectations based entirely on past experiences with a given partner. Indeed, trust goes beyond the available objective data provided by prior interactions with a given partner and often requires one to go out on a limb, exhibiting a healthy dose of blind faith in the partner's trustworthiness; thus, trust plays an important role in relationships from their earliest stages onward (Holmes & Rempel, 1989).

Not all interpersonal situations are equally relevant to trust. Trust is most relevant in situations that highlight the conflicting goals of relationship-promotion and self-protection (Murray et al., 2006). This conflict is especially salient in situations in which one's partner's preferences diverge from one's own preferences and one's partner has control over one's outcomes (Kelley et al., 2003). Prototypical among such situations are *transgressions*, or incidents in which a partner behaves badly, violating relationship-specific norms. In addition, negative events tend to be more salient and impactful than positive events (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Kanouse & Hanson, 1972). As such, memories of negative events such as partner transgressions are especially threatening and might easily overwhelm one's overall image of a partner or undermine one's confidence in a relationship (Finkel, Rusbult, Kumashiro, & Hannon, 2002; McCullough, Worthington, & Rachal, 1997).

Presumably, everyone wants to feel safe and secure and is likely to think and act in ways that promote such feelings. However, people with relatively strong trust in their partner and people with relatively weak trust in their partner tend to use different means to achieve this common end. Trust signals that it is safe to be dependent on a partner (Murray & Holmes, 2009), in that the

partner can be relied upon to be responsive to one's needs and to promote one's best interests. Those with higher trust in their partner are confident that their partner has the self's interests at heart and will behave in ways that promote the self's well-being. Therefore, they tend to feel safe and relatively invulnerable and can afford to go yet further out on a limb, risking greater dependence on their partner because they are confident that their partner will act in ways that reinforce their feelings of safety and security.

In other words, more than their less trusting counterparts, trusting individuals can risk thinking and acting in ways that promote their dependence on their relationship rather than in ways that protect them from hurt or rejection (Murray et al., 2006). For example, individuals who are confident in their partner's regard tend to report idealized perceptions of their partner, greater certainty in their commitment to their partner, and more willingness to depend on their partner even in risky situations in which their partner might be tempted to be unresponsive to their needs (Murray, Holmes & Griffin, 2000; Murray, Holmes, Griffin, Bellavia, & Rose, 2001; Murray et al., 2011). Trusting individuals also defend themselves against evidence suggesting that their partner may, in fact, not be as responsive as they had assumed. That is, they tend to rate their partner's behavior more positively and attribute this positive behavior to more benevolent motives after reflecting on a negative incident with their partner than after reflecting on a positive incident or no incident in particular (Holmes & Rempel, 1989). However, none of this research examined memory biases. We propose that, because people with high (relative to low) trust tend to expect that their partner will act in accordance with their interests, they have the luxury of remembering the past in a way that prioritizes relationship dependence over self-protection. In particular, they tend to exhibit relationship-promoting memory biases regarding transgressions the partner had enacted in the past, recalling their frequency, severity, and consequentiality in a positive, prorelationship way when accounting for how they initially viewed them.

Those with less trust in their partner tend to take a different route to enhancing their feelings of safety and security. A lack of trust signals that it may not be safe to be dependent on the partner (Murray & Holmes, 2009) because one is uncertain about whether the partner can be relied upon to be responsive to one's needs and to promote one's best interests. Individuals who do not fully trust their partner experience the approach/avoidance conflict of hoping that their partner intrinsically cares for them and will behave in ways that promote the self's well-being while simultaneously fearing that their partner does not and will not (Deutsch, 1973; Holmes & Rempel, 1989). They tend to feel at risk and vulnerable and, therefore, cannot afford to exacerbate their vulnerability by risking greater dependence; instead, they feel that they must protect themselves and promote their feelings of safety and security by avoiding situations in which their partner might hurt or reject them.

In other words, more than their more trusting counterparts, less trusting individuals think and act in ways that protect them from hurt and rejection rather than in ways that promote their dependence on their relationship (Murray et al., 2006). For example, individuals who are not confident in their partner's regard tend to report less generous perceptions of their partner, greater uncertainty in their commitment to their partner, and more reluctance to depend on their partner (Murray et al., 2000; Murray et al., 2001; Murray et al., 2011). We propose that, because people with low (relative to high) trust tend to be uncertain about whether their partner will act in accordance with their interests, they feel compelled to remember the past in a way that prioritizes self-protection over relationship dependence. In particular, they tend to exhibit self-protective memory biases regarding transgressions the partner had enacted in the past, recalling their frequency, severity, and consequentiality in a negative, self-protective—and antirelationship— way when accounting for how they initially viewed them. This analysis that trust in the present

alters expectations about the future in a manner that colors memories of the past brings us to our

first hypothesis:

> The *Trust Hypothesis* states that, to the extent that people possess high (vs. low) trust in their
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> partner, they will recall that their partner committed fewer prior transgressions and will
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> recall prior transgressions as less severe and consequential, when controlling for their initial
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> reports.

Because high trust licenses people to be relatively unguarded, prioritizing relationship-

promotion over self-protection (Murray et al., 2006), trust is especially relevant to memories of the

partner's behavior. That is, greater trust should predict more positively biased memories of partner

behavior that reflect the relationship-promoting goal trusting individuals are more likely to adopt.

Equivalently, lower trust should predict more negatively biased memories of partner behavior that

reflect the self-protecting goal less trusting individuals are more likely to prioritize. A major

implication of the risk regulation analysis of memory bias in relationships is that trust—and its

implications for relationship-promotion and self-protection—are less relevant to memories of

one's own behavior. Therefore, one would expect trust-inspired biased memory to be partner-

specific, such that it is more reliably evident for recall of a partner's behavior than for recall of

one's own behavior. This analysis brings us to our second hypothesis:

> The *Partner Moderation Hypothesis* states that the association of trust with biased memory
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> will be stronger for recollections regarding (a) the number and severity of partner
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> transgressions than of own transgressions and (b) the partner's behavior following
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> transgressions than one's own behavior following transgressions.

To demonstrate that trust is the crucial predictor of biased memory of relationship events that

make salient the conflicting goals of relationship-promotion and self-protection, we sequentially

pit trust against the variables examined in prior investigations of biased memory in close

relationships—that is, satisfaction and attachment orientations—as well as other plausible predictors of biased memory. This brings us to our third hypothesis:

> The *Unique Variance Hypothesis* states that trust will account for unique variance in biased memory beyond variance attributable to (a) the relationship-specific variables of commitment or satisfaction; (b) the person-level traits of self-esteem, dispositional forgiveness, or attachment orientations; or (c) the socially desirable response tendencies of self-deception and impression management.

Research Overview

Across four longitudinal studies, we examined the association of trust with memories of transgressions that occurred in established dating relationships (Studies 1, 3, and 4) and in fledgling romantic relationships (Study 2). All four studies tested the Trust Hypothesis and Unique Variance Hypothesis. Studies 3 and 4 also tested the Partner Moderation Hypothesis. In all studies, participants reported on transgressions soon after their occurrence, providing initial reports of their early views of the transgressions. Subsequently, they recalled the transgressions and completed memory criterion measures of their recollections of the transgressions. That is, to test the Trust Hypothesis, we regressed the memory criterion onto both trust and the corresponding initial report—for instance, we predicted recalled severity of the partner's transgression from trust, controlling for the individual's initial rating of severity. If trust predicts the memory criterion beyond variance attributable to the corresponding initial report, we can be confident that trust predicts change in recollections of the number, severity, and consequentiality of transgressions over time.

Study 1

We designed Study 1 to address three goals. One goal was to test the Trust Hypothesis. To this end, every two weeks over the course of the six-month study, we asked members of dating

couples to report any partner transgressions that had transpired in the past two weeks. For each transgression, participants rated their perception of the severity of the partner's behavior and reported the extent of the partner's amends and their own forgiveness (initial reports). We later asked participants to recall their initial ratings of perceived severity, amends, and forgiveness (memory criteria). According to the Trust Hypothesis, trust should predict each memory criterion beyond variance attributable to the corresponding initial report.

A second goal of Study 1 was to examine memory effects involving both short- and long-term memory delays. We did this by assessing recollections of partner transgressions in two ways. First, we examined short-term, incident-specific recall: At each research occasion, we reminded participants of any partner transgressions they described two weeks earlier, and asked them to recall their initial ratings of severity, amends, and forgiveness for that particular transgression. Second, we examined long-term, aggregated recall: At the end of the study, we asked participants to recall the average of their initial ratings of all partner transgressions that transpired during the course of the six-month study, providing global ratings of severity, amends, and forgiveness.

A third goal of Study 1 was to test the Unique Variance Hypothesis. According to the Unique Variance Hypothesis, findings in support of the Trust Hypothesis should not be attributable to any of several variables with which trust or recollections might be associated.

Method

Participants. Participants were 69 undergraduates (35 women, 34 men) who took part in a six-month longitudinal study of dating relationships. We recruited participants via announcements posted on the university campus. Announcements indicated that in order to take part, participants must be: (a) first year undergraduates; (b) involved in dating relationships of at least two months in duration; (c) between 17 and 19 years of age; (d) native English speakers; and (e) the only member of a given couple to participate in the study. At the beginning of the study, most

participants were 18 years old (7% were 17, 81% were 18, 12% were 19) and most were

Caucasian (12% Asian American, 74% Caucasian, 14% other). Participants had been involved

with their partners for an average of 13.05 months. During the course of the study, 26 participants

broke up with their partners.

The data employed in analyses that examine short-term, incident-specific memory are from

the 58 participants (32 women, 26 men) who reported on one or more partner transgressions

during the course of the study. These 58 participants reported an average of 3.38 transgressions

($SD = 2.65$) over the course of the study and did not differ significantly in Time 1 trust from the

participants excluded from these analyses, $t(67) = 0.12$, $p = .90$. The data employed in analyses

that examine long-term, aggregated memory are from the 33 participants (20 women, 13 men)

who (a) reported on one or more partner transgressions during the course of the study and (b)

remained involved with that partner throughout the course of the study, such that they completed

measures of trust at the end of the study. These 33 participants reported an average of 3.66

transgressions ($SD = 3.11$) over the course of the study. As may be expected given that many of

the participants excluded from these analyses broke up with their partner over the course of the

study, these 33 participants reported greater Time 1 trust than the participants excluded from these

analyses, $t(67) = 1.95$, $p = .055$.

Procedure. Participants first completed questionnaires that were sent to them via campus

mail. Then they took part in Time 1 laboratory sessions during which they completed

questionnaires designed to measure trust and other constructs; we also reviewed instructions for

completing online questionnaires. During the six months between their Time 1 and Time 2

sessions, participants completed biweekly online questionnaires in which they (a) described any

partner transgressions that transpired during the previous two weeks, and (b) if they had described

a partner transgression in the previous questionnaire, completed a short-term, incident-specific

memory task relevant to that transgression. During Time 2 laboratory sessions that took place at the end of the six-month study, participants completed questionnaires designed to measure trust and other constructs; they also completed a long-term, aggregated memory task relevant to all transgressions they had described in their earlier questionnaires. Participants were paid $100 if they completed all components of the study, and were paid a prorated amount if they failed to complete some online questionnaires. All 69 participants completed the study; 67 participants completed at least 12 of 14 online questionnaires.

Initial reports. In each online questionnaire, participants were asked "Has your partner done anything over the past two weeks that was upsetting to you?" (yes vs. no). Participants who answered "yes" provided a written description of the incident and also rated: *Perceived Severity of Transgression* (1 item; "I experienced my partner's behavior as a betrayal"; for all items, 1 = *disagree strongly*, 7 = *agree strongly*), *Perpetrator Amends* (1 item; "My partner tried to make amends to me for this upsetting behavior"), and *Victim Forgiveness* (1 item; "I have forgiven my partner for this behavior"). Responses associated with each specific transgression served as initial reports against which to examine short-term, incident-specific recall. To develop initial reports against which to examine long-term, aggregated recall, we averaged scores for perceived severity, amends, and forgiveness across all transgressions committed by a given partner over the course of the six-month study.

Memory measures. To measure short-term, incident-specific recall, in each online questionnaire we reminded participants of any partner transgressions that they had reported two weeks earlier by presenting participants with their own verbatim description of the transgression. Participants completed a memory task using items that paralleled those employed in the initial report, providing ratings of: *Recalled Perceived Severity of Transgression* (1 item; "Two weeks ago, to what degree did you agree with the statement, 'I experienced my partner's behavior as a

betrayal?'"; for all items, 1 = *disagree strongly*, 7 = *agree strongly*), *Recalled Perpetrator Amends* (1 item; "…'My partner tried to make amends to me…'"), and *Recalled Victim Forgiveness* (1 item; "…'I have forgiven my partner…'").

To assess long-term, aggregated recall, during Time 2 sessions participants completed a memory task in which they rated all of the partner's transgressions during the previous six months. Using items that paralleled those employed in the initial reports from online questionnaires, participants provided global ratings of: *Recalled Perceived Severity of Transgressions* (1 item; "When you first reported on this person's upsetting behaviors, how much did you initially agree with the following statement, *on average*: 'I experienced my partner's behavior as a betrayal?'"; for all items, 1 = *disagree strongly*, 7 = *agree strongly*), *Recalled Perpetrator Amends* (1 item; "…'My partner tried to make amends to me…'"), and *Recalled Victim Forgiveness* (1 item; "…'I have forgiven my partner…'").

Measuring trust and potential confounds. During Time 1 and Time 2 sessions, participants completed questionnaires designed to measure trust and several potential confounds. At the Time 2 session, participants reported on their trust, commitment, satisfaction, and attachment orientations before completing the long-term, aggregated memory task. We assessed *Trust* at Times 1 and 2 using the 17-item Rempel et al. (1985) instrument (e.g., "I can rely on my partner to react in a positive way when I expose my weaknesses to him/her"; for all items 1 = *disagree strongly*, 7 = *agree strongly*; Time 1 and 2 αs = .88 and .90). During Times 1 and Time 2 laboratory sessions we also assessed: *Commitment*, using the 7-item Rusbult, Martz, and Agnew (1998) instrument (Times 1 and 2; e.g., "I am committed to maintaining my relationship with my partner"; Time 1 and 2 αs = .94 and .95); *Satisfaction*, using the 5-item Rusbult et al. (1998) instrument (Times 1 and 2; e.g., "I feel satisfied with our relationship"; Time 1 and 2 αs = .87 and .93); *Self-Esteem*, using the 10-item Rosenberg (1965) instrument (Time 1; e.g., "I feel that I am a

person of worth, at least on an equal basis with others"; α = .86); *Dispositional Forgiveness*, using

the 4-item Brown (2003) instrument (Time 1; e.g., "I have a tendency to harbor grudges" [reverse-

scored]; α = .82); *Attachment Anxiety and Avoidance*, using the 36-item Brennan, Clark, and

Shaver (1998) instrument (Times 1 and 2; e.g., for anxiety, "I need a lot of reassurance that I am

loved by romantic partners," Time 1 and 2 αs = .92 and .92; for avoidance, "I don't feel

comfortable opening up to romantic partners"; Time 1 and 2 αs = .95 and .94); and *Self-Deception*

and *Impression Management*, using a 10-item version of the Paulhus (1984) instrument (Time 1;

e.g., for self-deception, "I never regret my decisions"; for impression management, "I am a

completely rational person"; respective αs = .70 and .56). Following Paulhus' (1984) procedure,

we developed measures of self-deception and impression management by counting the number of

extreme scores (6 or 7) endorsed for the items designed to tap each variable; we developed

measures of other constructs by averaging scores for the items designed to tap each variable.

Results

  Analysis strategy. The data provided by a given participant regarding multiple

transgressions are not independent, so for short-term, incident-specific memories we used the SAS

PROC MIXED procedure to perform multilevel modeling analyses (Kenny, Kashy, & Cook,

2006; Raudenbush & Bryk, 2002), representing the several observations from a given participant

(Level 1) as nested within participant (Level 2), and allowing intercept terms to vary randomly

across participants. For long-term aggregated memories we performed ordinary least squares

analyses. We initially tested the Trust Hypothesis using analyses that included effects for

participant sex; these analyses revealed no significant sex effects, so we dropped this variable

from the analyses.

  Descriptive Statistics. Table 1 (rows labeled *Study 1*) presents the means and standard

deviations of initial reports, memory criteria, and memory biases. It also presents the percent of

participants exhibiting positive, negative, and no memory bias for each memory criterion. On average, participants exhibited positive memory bias for short-term, incident-specific recall of perpetrator amends and for both short-term, incident-specific and long-term, aggregated recall of victim forgiveness. Participants did not exhibit statistically reliable memory bias for the remaining measures. Next, we examined whether trust predicted systematic deviations from these normative tendencies.

Testing the Trust Hypothesis. To examine short-term, incident-specific memories, we performed multilevel regression analyses, predicting recalled perceived severity of transgressions, perpetrator amends, and victim forgiveness from Time 1 trust, controlling for the participant's initial, incident-specific report of the variable corresponding to the criterion.[1] Each initial report was a reliable predictor of its corresponding memory criterion; that is, people's initial reports strongly predicted their memories of their initial reports (see Table 2, statistics under *Short-Term, Incident-Specific Recall*; βs = .71, .53, and .40, all *p*s < .001). Despite these large effects and consistent with the Trust Hypothesis, trust predicted recalled perceived severity and recalled forgiveness beyond the effects of the initial reports; that is, people with high (relative to low) trust in their partner remembered partner transgressions as less severe and recalled that they granted their partner greater forgiveness (see Table 2; βs = −.36 and .54, both *p*s < .03). Trust, however, did not predict short-term, incident-specific recalled amends beyond the effect of the initial report (β = .13, *p* = .453). Thus, to the extent that participants experienced greater trust in their partners, they tended to recall specific partner transgressions in a biased manner (2 of 3 associations were significant), even controlling for incident-specific, initial reports from two weeks earlier.

To examine long-term, aggregated memories, we performed ordinary least squares regression analyses, predicting recalled perceived severity of transgressions, perpetrator amends, and victim forgiveness from Time 2 trust, controlling for aggregated initial reports of the variable

corresponding to the criterion, averaged across all transgressions reported by a given participant over the course of the study. Once again, each initial report measure was a reliable predictor of its corresponding memory criterion (see Table 2, statistics under *Long-Term, Aggregated Recall*; βs = .50, .62, and .67, all *p*s < .005). Despite these large effects and consistent with the Trust Hypothesis, trust predicted recalled amends and forgiveness beyond the effects of the initial reports; that is, people with high (relative to low) trust in their partner recalled that their partner made stronger amends and that they granted their partner greater forgiveness (see Table 2; βs = .30 and .37, both *p*s < .04). Trust, however, did not predict long-term, aggregated recalled perceived severity beyond the effect of the initial report (β = −.18, *p* = .283). Thus, to the extent that participants experienced greater trust in their partners, they tended to recall partner transgressions in a biased manner (2 of 3 associations were significant), even controlling for initial reports averaged from initial reports.

Testing the Unique Variance Hypothesis. We also explored whether our findings might be attributable to variables with which trust or recollections might be associated. For the Table 2 analyses for which we observed significant associations with trust, we performed: (a) multilevel regression analyses, predicting short-term, incident-specific recalled perceived severity and forgiveness from Time 1 trust, controlling for the corresponding initial report, as well as, in turn, Time 1 measures of each of the potential confounds listed above; and (b) ordinary least squares analyses, predicting long-term, aggregated recall of amends and forgiveness from Time 2 trust, controlling for the corresponding initial report, as well as, in turn, Time 2 commitment, Time 2 satisfaction, Time 1 self-esteem, Time 1 dispositional forgiveness, Time 2 attachment anxiety and avoidance, and Time 1 self-deception and impression management. In each analysis, we entered trust, the corresponding initial report, and the potential confound simultaneously. To allow for quantitative summary of our findings, we reverse-scored memory criteria and their corresponding

initial reports as appropriate so that positive coefficients reflect stronger positive memory bias.

Results are presented in Table 3 (see rows labeled *Study 1*). As anticipated, across the full

complement of analyses, the coefficient for trust remained significant or marginal in the predicted

direction in 19 of 24 analyses (average $\beta = .36$); coefficients for the potential confounds typically

were nonsignificant (average $\beta = .03$; only 2 of 32 coefficients were significant or marginal in the

expected direction, and 1 coefficient was marginal in the opposite direction).[2] Thus, trust

accounted for unique variance in biased memory beyond variance attributable to any of these

potential confounds.

Discussion

Study 1 supported the Trust Hypothesis: To the extent that participants experienced stronger

trust in their partner, they tended to recall their initial reports of prior partner transgressions more

positively. For short-term, incident-specific recollections, trust-inspired biased memory was

evident for two of three variables—for recollections of perceived transgression severity and

victim forgiveness. It is noteworthy that memory bias was evident for short-term recall, in that on

each online questionnaire we reminded participants (verbatim) of the specific partner

transgression they described only two weeks earlier and asked them to recall their initial ratings of

the transgression. This procedure represents a conservative test of the Trust Hypothesis, in that

such explicit reminders and specific recall instructions presumably block or inhibit some methods

of memory bias. For long-term, aggregated recollections, trust-inspired biased memory was also

evident for two of three variables—for recollections of perpetrator amends and victim forgiveness.

Study 1 also supported the Unique Variance Hypothesis: The associations of trust with

memories were significant not only beyond participants' initial reports—beyond variance

attributable to initial, incident-specific ratings of each variable—but also beyond variance

attributable to diverse potential confounds including commitment, satisfaction, self-esteem,

dispositional forgiveness, attachment anxiety and avoidance, or self-deception and impression management.

Study 2

Study 1 supported the Trust Hypothesis and the Unique Variance Hypothesis in the context of relatively established dating relationships in which participants presumably have had the opportunity to develop a sense of trust in their partner on the basis of past interactions with the partner. However, as noted previously, trust is not based on prior experiences with a given partner alone; it also involves non-evidence-based faith in the partner's trustworthiness (Holmes & Rempel, 1989). This type of blind faith in the partner's goodwill toward oneself may be especially important in *fledgling relationships*—that is, in potential romantic relationships that have not yet reached anything approximating an "official" status. In such relationships, past behavior might not provide as much evidence of a partner's trustworthiness as it does in more established relationships. Furthermore, even in the earliest stages of romantic relationships, people must find a balance between self-protection and relationship-promotion. If they are too concerned with self-protection, they may never initiate a conversation or set up a date that would otherwise have led to a fulfilling relationship. At the same time, initiating a conversation or setting up a date makes oneself vulnerable to rejection. Given that both trust and dependence regulation concerns emerge at soon as—or even before—a romantic relationship begins, it makes sense to examine trust-inspired biased memory in fledgling relationships.

Study 2 began with a speed-dating event, following which participants completed questionnaires every three days for one month. In each questionnaire, they described their experiences with two types of targets: (a) their speed-dating *matches*—dyads in which both partners expressed an interest in meeting again after the event—and (b) their *write-ins*—any other people in their life toward whom they experienced romantic interest. Among other things, they

reported on any transgressions that a given match or write-in perpetrated during the previous three

days, if any, and they rated the degree to which each such incident influenced their desire for

continued involvement with that partner (initial report). In the questionnaires that participants

completed three days later, we reminded them of any partner transgressions they described in the

previous questionnaire, asking them to recall their initial ratings of the degree to which the

incident influenced their desire for continued involvement with the partner (memory criterion).

Study 2 represents a particularly challenging test of the Trust Hypothesis in that (a) it

examined trust in fledgling relationships—vulnerable dyads in which mental representations of

trust may not yet be well-established, and (b) the recollections that we examined concern very

specific reactions to very recent events—in essence, participants were asked to recall from just

three days earlier their initial ratings of desire for continued involvement with a given partner.

Method

Participants. Participants were 163 undergraduates (81 women, 82 men) who attended one

of seven speed-dating events. We recruited participants via flyers that were posted around campus

as well as via electronic mail announcements that were sent to all freshmen, sophomores, and

juniors. Participants were 19.70 years old, on average; most were Caucasian (9% Asian American,

80% Caucasian, 11% other). The data employed in the present work are from the 54 participants

(34 women, 20 men) who (a) reported on one or more transgressions during the course of the

study, and (b) completed a memory task regarding that transgression three days later (17

additional individuals reported transgressions but did not complete the memory task). These 54

participants reported an average of 2.17 transgressions ($SD = 1.41$) over the course of the study.

Procedure. Prior to the speed-dating event, participants completed online questionnaires

designed to assess several potential confounds. Approximately 10 days later, participants attended

a speed-dating event. During the event, each participant went on approximately twelve 4-min

dates with members of the opposite sex. Following each event, participants privately reported whether they would like to meet each speed-dating partner again (yes vs. no). If both people in a given pair replied "yes," they were declared a match and were given the opportunity to contact one another through the speed-dating website, presumably to set up a subsequent face-to-face meeting.

Two days following the speed-dating event, participants completed the first of 10 online questionnaires, in each of which they (a) described any transgressions committed by a given partner during the preceding days, and (b) if they had described a transgression in the previous questionnaire, completed a memory task relevant to that transgression. A crucial feature of our methodology is that each online questionnaire inquired not only about participants' experiences with speed-dating matches, but also about their experiences with their write-ins (other individuals toward whom they experienced romantic interest). Participants knew their write-ins for an average of 11.88 months, and 69% of the transgressions participants reported were committed by write-ins. As such, although a subset of the transgressions were perpetrated by partners in very new fledgling (not yet established) relationships, more than two-thirds were perpetrated by partners in longer-term fledgling relationships. Participants were paid $5 for completing the initial intake questionnaire, and were paid $3 for each online questionnaire; they received a bonus of $10 for completing at least 9 of 10 online questionnaires.

Initial report. As noted earlier, following the speed-dating event, participants completed online questionnaires every three days. For each speed-dating match and write-in that a given participant identified—that is, for each partner toward whom a given participant experienced romantic interest—the participant indicated whether the partner had committed a transgression: "Has [name of partner] done anything that was upsetting to you since [time of previous online questionnaire]?" In turn, the system inserted the name of each speed-dating match and/or write-in

that a given participant had identified, as well as the amount of time that had elapsed since the

participant completed the previous questionnaire. Participants who answered "yes" provided a

written description of the incident and also completed an initial report of *Desire for Continued*

Involvement (1 item; "As a result of this behavior, I have less desire to have any relationship with

[name of partner]" [reverse-scored]; 1 = *strongly disagree*, 7 = *strongly agree*).

Memory measure. In each online questionnaire, we reminded participants of any partner

transgressions that they had reported in the previous questionnaire by presenting participants with

their own verbatim description of the transgression. Participants completed a memory task for

each such transgression, using an item that paralleled the one employed in the initial report, rating

Recalled Desire for Continued Involvement (1 item; "When you initially reported on this incident,

to what extent did you agree with the following statement: 'As a result of this behavior, I have less

desire to have any relationship with [name of partner]'" [reverse-scored]; 1 = *strongly disagree*, 7

= *strongly agree*).

Measuring trust and potential confounds. Before completing the memory task in each

online questionnaire, participants rated *Trust* for each partner toward whom they experienced

romantic interest (1 item; "I trust [name of partner]"; for all items, 1 = *strongly disagree*, 7 =

strongly agree). In the intake questionnaire that participants completed prior to the speed-dating

event, we also assessed: *Self-Esteem*, using a 3-item instrument (e.g., I have high self-esteem"; α =

.66); *Dispositional Forgiveness*, using a 3-item version of the Brown (2003) instrument (e.g., "I

have a tendency to harbor grudges" [reverse-scored]; α = .86); and *Attachment Anxiety and*

Avoidance, using an 8-item version of the Brennan et al. (1998) instrument (e.g., for anxiety, "I

need a lot of reassurance that I am loved by romantic partners"; and for avoidance, "I get

uncomfortable when a romantic partner wants to be very close"; respective αs = .66 and .72).

Results

Analysis strategy. The data provided by a given participant about multiple partners (speed-dating matches and/or write-ins) on multiple research occasions are not independent. Therefore, we used the SAS PROC MIXED procedure to perform multilevel modeling analyses (Kenny et al., 2006; Raudenbush & Bryk, 2002), representing multiple reports about a given partner (Level 1) as nested within partner (Level 2), which in turn was nested within participant (Level 3). We allowed intercepts to vary randomly across partners and across participants. We initially tested the Trust Hypothesis using analyses that included effects for participant sex and type of relationship (speed-dating match vs. write-in); no effects involving these variables were significant, so we dropped them from the analyses.

Descriptive Statistics. Table 1 (rows labeled *Study 2*) presents the means and standard deviations of the initial report, memory criterion, and memory bias. It also presents the percent of participants exhibiting positive, negative, and no memory bias. On average, participants exhibited a marginally significant positive memory bias for recalled desire for continued involvement. Next, we examined whether trust predicted systematic deviations from this normative tendency.

Testing the Trust Hypothesis. To test the Trust Hypothesis, we performed a multilevel regression analysis, predicting recalled desire for continued involvement with a given partner from concurrent reports of trust in that partner, controlling for the participant's initial, incident-specific report of desire for continued involvement. The initial report was a reliable predictor of the memory criterion, $\beta = .54$, $t(28) = 6.58$, $p < .001$. Despite this large effect and consistent with the Trust Hypothesis, trust predicted recalled desire for involvement beyond the effect of the initial report, $\beta = -.21$, $t(28) = -2.50$, $p < .019$. That is, to the extent that participants experienced greater trust in a given partner, they tended to recall that the partner's transgression exerted a less harmful effect on their desire for continued involvement, even controlling for the initial report from three days earlier.

Testing the Unique Variance Hypothesis. We also explored whether our findings might be attributable to any of three traits with which trust or recollections might be associated. We performed multilevel regression analyses, regressing recalled desire for continued involvement onto trust, controlling for the participant's initial report of desire for continued involvement, and controlling for, in turn, self-esteem, dispositional forgiveness, and attachment anxiety and avoidance. In each analysis, we entered trust, the initial report of desire for continued involvement, and the potential confound simultaneously. Results are presented in Table 3 (see row labeled *Study 2*). The coefficient for trust remained significant in the predicted direction in all three analyses (average β = .20); coefficients for the control variables consistently were nonsignificant (average β = .03). Thus, trust accounted for unique variance in biased memory beyond variance attributable to self-esteem, dispositional tendencies toward forgiveness, or attachment orientations.

Discussion

Like Study 1, Study 2 supported the Trust Hypothesis: To the extent that participants experienced stronger trust in their partner, they tended to recall their initial reports of partner transgressions more positively. Indeed, trust-inspired memory bias was evident over the course of brief, three-day time periods. Study 2 also supported the Unique Variance Hypothesis: The association of trust with memory was significant not only beyond participants' initial reports but also beyond variance attributable to self-esteem, dispositional forgiveness, or attachment orientations. Our Study 2 findings also demonstrate that trust-inspired memory bias is evident not only in relatively established relationships, but also in fledgling relationships.

Study 3

Studies 1 and 2 revealed that trust-inspired memory bias was evident in both dating and fledgling relationships, and for both short- and long-term memory delays. Moreover, the observed

biased memory was not attributable to a variety of other variables. However, thus far we have examined only recollections regarding partner transgressions. The Partner Moderation Hypothesis predicts that the association of trust with biased memory will be stronger for recollections regarding (a) the number and severity of partner transgressions than of own transgressions and (b) the partner's behavior following transgressions than one's own behavior following transgressions. Therefore, a major goal of Study 3 was to test the Partner Moderation Hypothesis. Predictions regarding the number and perceived severity of transgressions committed by the self and partner are straightforward: Trust should more strongly predict recalled number of and perceived severity of partner transgressions than of own transgressions. Likewise, because the partner makes amends for partner transgressions and the self makes amends for one's own transgressions, trust should more strongly predict recalled perpetrator amends of partner transgressions than of own transgressions. However, predictions regarding victim forgiveness of transgressions committed by the self and partner are a bit more complex. Because the partner forgives one's own transgressions and the self forgives partner transgressions, trust should more strongly predict recalled victim forgiveness of own transgressions than of partner transgressions—the opposite pattern than expected for the other memory criteria. Support for the Partner Moderation Hypothesis would suggest that trust in a given partner—and not general relationship positivity or any other variable that would be expected to predict memory bias of both own and partner behavior—predicts biased memory of transgressions.

A second goal of Study 3 was to examine a more concrete memory criterion and corresponding initial report than those used in Studies 1 and 2. The measures used in Studies 1 and 2 assessed memory bias in participants' perception of the impact of the reported transgressions on the relationship, but did not assess memory bias in participants' reports of the transgressions themselves. In order to examine memory bias in reports of transgressions

themselves, at the conclusion of Study 3 we asked participants to recall how many transgressions they reported during the course of the study and compared this number to the actual number of transgressions participants reported.

A third goal of Study 3 was to employ improved initial reports. Although the initial report measures employed in Studies 1 and 2 were obtained close to the time that transgressions actually transpired, in Study 3 we sought to further minimize the gap between the time at which a transgression transpired and the time at which participants initially rated the transgression. To this end, we conducted an event-contingent diary study, asking people to provide immediate descriptions of all transgressions that transpired in their relationships during a two-week period (cf. Reis & Wheeler, 1991). Participants were instructed to carry diary records with them at all times. Immediately following a transgression committed by either the self or the partner, they used a diary record to describe the incident, rating perceived transgression severity, perpetrator amends, and victim forgiveness. At the end of the study, participants completed an aggregated memory task, recalling the number of transgressions committed by the self and partner during the preceding two-week period and providing global ratings of recalled severity, amends, and forgiveness for all transgressions that transpired, separately for their own and the partner's transgressions.

Method

Participants. Participants were 78 undergraduates (58 women, 20 men) who volunteered to take part in the study in partial fulfillment of the requirements for introductory psychology courses. Inclusion criteria required that participants must be involved in a dating relationship of at least one month in duration and must interact with their partners almost every day, either on the telephone or in person. Participants were 18.93 years old, on average; most were Caucasian (13% African American, 81% Caucasian, 7% other). Participants had been involved with their partners

for an average of 15.58 months, and most described their relationships as exclusive (96% reported

that neither partner dated others, 4% reported that both partners dated others). During the course

of the two-week study, 54 participants reported on one or more of their own transgressions (38

women, 16 men); these 54 participants reported less trust than the remaining 24 participants who

were excluded from analyses examining own transgressions, $t(73) = -1.97$, $p = .053$. Sixty-four

participants reported on one or more partner transgressions (46 women, 18 men); these 64

participants reported less trust than the remaining 14 participants who were excluded from

analyses examining partner transgressions, $t(73) = -2.38$, $p = .02$.

Procedure. Each participant attended two laboratory sessions—one at the beginning of the

two-week study, and a second at the end. During Time 1 sessions participants completed

questionnaires designed to assess several potential confounds; we also distributed materials for the

upcoming, 14-day event-contingent diary procedure, and reviewed instructions for completing

diary records. During Time 2 laboratory sessions participants completed questionnaires designed

to assess trust and commitment; they also completed a memory task regarding the transgressions

they had described in their diary records, along with a questionnaire designed to assess the

validity of their diary responses (e.g., did they complete a record for each transgression, how soon

after the transgression did they complete forms?). During the 14 days between their Time 1 and

Time 2 laboratory sessions, participants were instructed to carry diary records with them at all

times, using these forms to describe each transgression committed by the self or the partner. We

asked participants to complete records as soon as possible following each incident, and to turn in

their booklets every Monday, Wednesday, and Friday (we reminded them by telephone the night

before). At Time 2 sessions, in the questionnaire that participants completed regarding the validity

of their diary responses, they reported that they completed diary records for nearly all of the

transgressions that transpired during the study (91%), that they did so shortly after each

transgression transpired (76% completed records within an hour of the time of the incident), and

that their records represented an accurate description of the events that transpired over the course

of the 14-day period (93%). At the end of Time 2 sessions, participants were debriefed and

thanked for their assistance.

Initial reports. As noted earlier, participants were instructed to carry diary record forms

with them for a two-week period, using these forms to describe all transgressions committed by

the self or the partner. We asked participants to "use one record sheet to record each incident in

which your partner made you feel upset, angry or hurt… no matter how small or big the incident

is… For example: your partner may tell a friend something that you believe should have remained

private; your partner may do something that is hurtful behind you back; your partner may flirt with

someone else at a party; or your partner may forget to call you when your partner said he/she

would" (instructions and items for own transgressions included suitable changes in language). We

asked participants to record all such incidents, even if an incident was quite brief, and even if they

felt fine by the end of the incident. If the same sort of interaction occurred later during the course

of the study, participants were to complete a separate record.

These instructions were summarized on the cover of each diary booklet. The remaining

sheets in the booklet were diary record forms; booklets included separate, parallel forms for own

and partner transgressions. For each transgression, participants (a) recorded the date and time at

which the incident occurred, (b) recorded the date and time at which they completed the record

form, (c) recorded the duration of the incident, (d) provided a description of the incident, and (e)

answered several questions about the incident. For each transgression, participants provided

ratings of: *Perceived Severity of Transgression* (2 items; e.g., "I thought this incident had the

potential to seriously harm our relationship"; for all items, 1 = *do not agree at all*, 7 = *agree*

completely; for own and partner transgressions, αs = .74 and .76), *Perpetrator Amends* (4 items;

e.g., "My partner showed real remorse about the incident"; for own and partner transgressions, αs = .85 and .92), and *Victim Forgiveness* (5 items; e.g., "I forgive my partner"; for own and partner transgressions, αs = .76 and .59). To develop initial report measures, we averaged scores for rated perceived severity, amends, and forgiveness across all transgressions that transpired during the 14-day period, separately for transgressions committed by the self and the partner. In addition, we calculated *Number of Transgressions*, counting the number of transgressions committed by the self and by the partner. Participants reported an average of 1.23 own transgressions ($SD = 0.91$) and 2.26 partner transgressions ($SD = 1.73$) over the course of the study.

Memory measures. During Time 2 sessions participants completed a memory task, reporting on their own and the partner's transgressions during the prior two-week period. First, we assessed *Recalled Number of Transgressions* during the two-week period, separately for the self and the partner ("How many times during the past two weeks did your partner make you feel upset, angry, hurt, etc.? During the past two weeks, my partner upset me _____ times [please fill in the number]"; the item for own transgressions was identical except for suitable changes in language). In addition, using items that paralleled those employed in the diary records, separately for transgressions committed by the self and the partner, participants provided global ratings of: *Recalled Perceived Severity of Transgressions* (2 items; e.g., "I thought these incidents had the potential to seriously harm our relationship"; for all items, 1 = *do not agree at all*, 7 = *agree completely*; for own and partner transgressions, αs = .80 and .72), *Recalled Perpetrator Amends* (4 items; e.g., "My partner showed real remorse about the incidents"; for own and partner transgressions, αs = .91 and .90), and *Recalled Victim Forgiveness* (5 items; e.g., "I forgave my partner for the incidents"; for own and partner transgressions, αs = .74 and .63).

Measuring trust and potential confounds. During Time 1 and Time 2 laboratory sessions, participants completed questionnaires designed to measure trust and several potential confounds.

At the Time 2 session, participants reported on their trust and commitment before completing the memory task. *Trust* was assessed at Time 2 using a 12-item version of the Rempel et al. (1985) instrument (e.g., "I can rely on my partner to keep the promises he/she makes to me"; for all items, 1 = *do not agree at all*, 7 = *agree completely*; α = .89). During laboratory sessions we also assessed: *Commitment*, using an elaborated, 15-item version of the Rusbult et al. (1998) instrument (Time 2; e.g., "I am committed to maintaining my relationship with my partner"; α = .93); *Satisfaction*, using the 5-item Rusbult et al. (1998) instrument (Time 1; e.g., "I feel satisfied with our relationship"; α = .92); *Self-Esteem*, using the 10-item Rosenberg (1965) instrument (Time 1; e.g., "I feel that I am a person of worth, at least on an equal basis with others"; α = .88); *Dispositional Forgiveness*, using the 15-item Mauger et al. (1992) instrument (Time 1; e.g., "I have grudges which I have held on to for months or years" [reverse-scored]; α = .79); *Attachment Anxiety and Avoidance*, using the 17-item Simpson, Rholes, and Phillips (1996) Adult Attachment Questionnaire (Time 1; e.g., for anxiety, "I often worry that my partner[s] don't really love me"; for avoidance, "I am somewhat uncomfortable being too close to others"; anxiety and avoidance αs = .81 and .79); and *Self-Deception* and *Impression Management*, using the full, 40-item Paulhus (1984) instrument (Time 1; respective αs = .75 and .69).

Results

Analysis strategy. We performed ordinary least squares analyses, regressing each Time 2 memory criterion onto Time 2 trust, controlling for initial diary reports of the corresponding criterion. Initially, we performed separate analyses for own and partner transgressions; in later analyses we represented actor (own vs. partner transgressions) as a factor in mixed-model analyses. We initially tested the Trust and Partner Moderation Hypotheses using analyses that included effects for participant sex; only 2 of the 13 effects involving sex were significant, so we dropped this variable from the analyses.[3]

Descriptive Statistics. Table 1 (rows labeled *Study 3*) presents the means and standard deviations of initial reports, memory criteria, and memory biases. It also presents the percent of participants exhibiting positive, negative, and no memory bias for each memory criterion. On average, participants exhibited negative memory bias for recalled number of partner and own transgressions. They also exhibited positive memory bias for recalled perpetrator amends and victim forgiveness for partner and own transgressions. Participants did not exhibit statistically reliable memory bias for recalled perceived severity of partner or own transgressions. Next, we examined whether trust predicted systematic deviations from these normative tendencies.

Testing the Trust Hypothesis. Separately for partner and own transgressions, we regressed recalled number of transgressions, perceived severity of transgressions, perpetrator amends, and victim forgiveness onto Time 2 trust, controlling for initial, diary reports of the corresponding criterion. Each initial report was a reliable predictor of its corresponding memory criterion (see Table 4; all ps < .001). Despite these large effects and consistent with the Trust Hypothesis, trust predicted seven of the eight memory criteria beyond the effects of the initial reports (see Table 4, rows labeled *Trust*). For partner transgressions, in all four instances trust predicted recollections beyond variance attributable to initial diary reports; that is, people with high (relative to low) trust in their partner remembered fewer partner transgressions, remembered partner transgressions as less severe, recalled that their partner made stronger amends, and recalled that they granted their partner greater forgiveness, controlling for their initial reports (see statistics under *Partner Transgressions*; all ps < .04). For own transgressions, in three of four instances trust significantly or marginally predicted recollections beyond variance attributable to initial diary reports of each criterion; that is, people with high (relative to low) trust in their partner remembered their own transgressions as less severe, recalled that they made stronger amends, and recalled that their

partner granted them greater forgiveness, controlling for their initial reports (see Table 4, statistics

under *Own Transgressions*; all three *p*s < .07).

  Testing the Partner Moderation Hypothesis. To test the Partner Moderation Hypothesis

we performed mixed-model analyses, predicting each memory criterion from the actor effect (own

vs. partner transgressions), Time 2 trust, and the trust × actor interaction, in addition to controlling

for initial diary reports of the corresponding criterion. The trust × actor interaction was significant

for recalled number of transgressions and for recalled victim forgiveness (βs = .25 and .24, both *ps*

< .03): As hypothesized, for recalled number of transgressions, trust-inspired biased memory was

stronger for partner transgressions than for own transgressions (see Table 4, statistics under *Own*

Transgressions vs. *Partner Transgressions*). Also as hypothesized, for recalled victim

forgiveness, trust-inspired biased memory was stronger for own transgressions (for which the

partner was the forgiver) than for partner transgressions (for which the self was the forgiver).

  Testing the Unique Variance Hypothesis. To explore whether the findings in support of

the Trust Hypothesis might be attributable to any of several variables with which trust or

recollections might be associated, we replicated the seven analyses from Table 4 for which we

observed significant or marginal trust effects, predicting recollections from trust, initial diary

ratings of each criterion, and, in turn, Time 2 commitment, Time 1 satisfaction, Time 1 self-

esteem, Time 1 dispositional forgiveness, Time 1 attachment anxiety and avoidance, and Time 1

self-deception and impression management. In each analysis, we entered trust, the corresponding

initial report, and the potential confound simultaneously. To allow for quantitative summary of

our findings, we reverse-scored memory criteria and their corresponding initial reports as

appropriate so that positive coefficients reflect stronger positive memory bias. Results are

presented in Table 3 (see rows labeled *Study 3*). Across the full complement of confound analyses,

the coefficient for trust remained significant or marginal in the predicted direction in 35 of 42

analyses (average $\beta = .26$); coefficients for the potential confounds typically were nonsignificant (average $\beta = -.01$; only 4 of 56 coefficients were significant or marginal in the expected direction, and 4 coefficients were significant or marginal in the opposite direction). Thus, trust accounted for unique variance in biased memory beyond variance attributable to any of these potential confounds.

To explore whether the findings in support of the Partner Moderation Hypothesis might be attributable to commitment, satisfaction, self-esteem, dispositional forgiveness, attachment orientations, or socially desirable response tendencies, we replicated the two mixed-model analyses for which we observed significant trust × actor interactions controlling, in turn, for each potential confound variable and the potential confound × actor interaction. In each analysis, we entered the trust × actor interaction and the potential confound × actor interaction simultaneously. Results are presented in Table 5 (see rows labeled *Study 3*). The trust × actor interaction remained significant or marginal in 10 of 12 analyses (average $\beta = .24$); none of the 16 potential confound × actor interaction coefficients was significant (average $\beta = -.01$).

Discussion

Like Studies 1 and 2, Study 3 supported the Trust Hypothesis: To the extent that participants experienced stronger trust in their partners, they tended to recall prior relationship transgressions as less numerous, severe, and consequential than they initially reported. These findings are noteworthy because the associations of trust with biased memories were evident not only for variables assessing participants' perception of the impact of reported transgressions but also for the number of partner transgressions—a more concrete variable about the transgressions themselves. Study 3 also supported the Partner Moderation Hypothesis for 2 of 4 memory criteria. Trust-inspired biased memory was stronger for number of partner transgressions than number of one's own transgressions and for partner forgiveness of one's own transgressions than one's own

forgiveness of partner transgressions. The Study 3 findings also supported the Unique Variance

Hypothesis. Neither trust-inspired biased memory nor its partner-specific nature was attributable

to any of several potential confounds.

Study 4

Studies 1 through 3 supported the Trust Hypothesis and the Unique Variance Hypothesis;

Study 3 also provided initial support for the Partner Moderation Hypothesis. Study 4 was a

replication and extension of Study 3, providing a second opportunity to test the Partner

Moderation Hypothesis. Like Study 3, Study 4 was an event-contingent diary study that obtained

initial reports close to the time that transgressions transpired. Like Study 3, we examined

recollections of transgressions committed by both the self and the partner. Also like Study 3, two

of our memory measures were recalled number of transgressions and perceived severity of

transgressions. The primary difference between Studies 3 and 4 concerned the remaining memory

indices. Study 3—as well as Studies 1 and 2—examined memories of not only number of

transgressions and their perceived severity, but also memories of behaviors (or behavioral

intentions; e.g., forgiveness, amends, intent to continue a relationship). In Study 4, we examined

not only recalled number and perceived severity of transgressions, but also memories of emotional

responses—recollections of experienced anger, sadness, and anxiety in response to transgressions.

According to the Partner Moderation Hypothesis, trust should more strongly predict all five

memory criteria for partner transgressions than for own transgressions.

Method

Participants. Participants were 75 undergraduates (54 women, 21 men) who volunteered to

take part in the study in partial fulfillment of the requirements for introductory psychology

courses. In order to take part, participants must be involved in a dating relationship of at least one

month in duration. Participants were 18.78 years old, on average; most were Caucasian (15%

African American, 77% Caucasian, 8% other). Participants had been involved with their partners

for an average of 14.85 months, and most described their relationships as exclusive (97% reported

that neither partner dated others, 3% reported that both partners dated others). During the course

of the two-week study, 44 participants reported on one or more of their own transgressions (29

women, 15 men); these 44 participants did not differ significantly in reported trust from the

remaining 31 participants who were excluded from analyses examining own transgressions, $t(71)$

$= 1.21$, $p = .23$. Fifty-eight participants reported on one or more partner transgressions (41

women, 17 men); these 58 participants reported marginally less trust than the remaining 17

participants who were excluded from analyses examining partner transgressions, $t(71) = -1.82$, p

$= .07$.

     Procedure. As in Study 3, each participant attended two laboratory sessions. During Time 1

sessions participants completed questionnaires designed to assess several potential confounds; we

also distributed materials for the diary procedure, and reviewed instructions for completing diary

records. During Time 2 sessions participants completed questionnaires designed to assess trust

and commitment; they also completed a memory task relevant to the transgressions they had

described in their diary records, along with a questionnaire designed to assess the validity of their

diary responses. During the 14 days between their Time 1 and Time 2 laboratory sessions,

participants were instructed to carry diary records with them at all times, using these forms to

describe each transgression that they or the partner committed. We asked participants to complete

records as soon as possible following each incident, and to turn in their booklets every Monday,

Wednesday, and Friday. At Time 2 sessions, in the questionnaire that participants completed

regarding the validity of their diary responses, they reported that they completed diary records for

nearly all of the transgressions that transpired during the study (90%), that they completed records

shortly after each transgression transpired (59% completed records within an hour of the time of

the incident), and that their records were accurate ($M = 5.78$; "I accurately followed instructions for completing interaction records"; 1 = *do not agree at all*, 7 = *agree completely*). At the end of Time 2 sessions, participants were debriefed and thanked for their assistance.

Initial reports. As noted earlier, participants were instructed to carry interaction record forms with them for a two-week period, using these forms to describe all transgressions committed by the self or the partner. We asked participants to use a sheet to record each incident in which the partner made them feel "distressed, unhappy, or irritated… no matter how mild or extreme the incident is… For example: your partner may do something unpleasant or thoughtless, act in a selfish manner, say something rude or inconsiderate, do something mean, snap at you, or ignore you" (instructions and items for own transgressions included suitable changes in language). We asked participants to record all such incidents, even if an incident was quite brief, and even if the partners felt fine by the end of the incident.

Diary booklets included separate sections for own and partner transgressions. For each transgression, participants (a) recorded the date and time at which the incident occurred, (b) recorded the date and time at which they completed the record form, (c) recorded the duration of the incident, (d) provided a description of the incident, and (e) answered several questions about the incident. For each transgression, participants provided ratings of: *Perceived Severity of Transgression* (1 item; e.g., "My actions had a negative impact on our relationship"/"My partner's actions had a negative impact on our relationship"; for all items, 1 = *do not agree at all*, 7 = *agree completely*), *Anger* (2 items; e.g., "My partner's actions made me angry"; for own and partner transgressions, αs = .73 and .66), *Sadness* (2 items; e.g., "My partner's actions made me sad"; for own and partner transgressions, αs = .76 and .73), and *Anxiety* (2 items; e.g., "My partner's actions made me anxious"; for own and partner transgressions, αs = .74 and .78). To develop initial report measures for each construct, we averaged scores for rated severity, anger, sadness,

and anxiety across all transgressions that transpired during the 14-day period, separately for transgressions committed by the self and the partner. In addition, we calculated *Number of Transgressions*, counting the number of transgressions committed by the self and the partner. Participants reported an average of 1.38 own transgressions ($SD = 0.74$) and 2.40 partner transgressions ($SD = 2.78$) over the course of the study.

Memory measures. During Time 2 sessions participants completed a memory task, reporting on their own and the partner's transgressions during the prior two-week period. First, we assessed *Recalled Number of Transgressions* during the two-week period, asking participants to list all of the transgressions that transpired during the previous two weeks, separately for the partner and the self; we counted the number of incidents recalled for both the partner and for the self. In addition, using items that paralleled those employed in the diary records, separately for transgressions committed by the self and the partner, participants reported on their global memories of the incidents that transpired during the previous two weeks, rating: *Recalled Perceived Severity of Transgressions* (1 item; "My partner's actions had a negative impact on our relationship"; for all items, 1 = *do not agree at all*, 7 = *agree completely*), *Recalled Anger* (2 items; e.g., "My partner's actions made me angry"; for own and partner transgressions, αs = .75 and .69), *Recalled Sadness* (2 items; e.g., "My partner's actions made me sad"; for own and partner transgressions, αs = .89 and .81), and *Recalled Anxiety* (2 items; e.g., "My partner's actions made me anxious"; for own and partner transgressions, αs = .79 and .88).

Measuring trust and potential confounds. During Time 1 and Time 2 laboratory sessions, participants completed questionnaires designed to measure trust and several potential confounds. At the Time 2 session, participants reported on their trust and commitment before completing the memory task. *Trust* was assessed at Time 2 using a 12-item version of the Rempel et al. (1985) instrument (e.g., "I can rely on my partner to keep the promises he/she makes to me"; for all

items, 1 = *do not agree at all*, 8 = *agree completely*; α = .88). During laboratory sessions we also

assessed: *Commitment*, using the 7-item Rusbult et al. (1998) instrument (Time 2; e.g., "I am

committed to maintaining my relationship with my partner"; α = .90); *Satisfaction*, using the 5-

item Rusbult et al. (1998) instrument (Time 1; e.g., "I feel satisfied with our relationship"; α =

.91); *Self-Esteem*, using the 10-item Rosenberg (1965) instrument (Time 1; e.g., "I take a positive

attitude toward myself"; α = .87); *Attachment Security, Anxiety, and Avoidance*, using the three-

paragraph Hazan and Shaver (1987) instrument (Time 1; for security, "I find it relatively easy to

get close to others and am comfortable depending on them…"; for anxiety, "I find that others are

reluctant to get as close as I would like; I often worry that my partner doesn't really love me or

won't want to stay with me…"; for avoidance, "I am somewhat uncomfortable being close to

others; I find it difficult to trust them completely, difficult to allow myself to depend on them…");

and *Self-Deception* and *Impression Management*, using the 40-item Paulhus (1984) instrument

that we employed in Study 3 (Time 1; respective αs = .61 and .71).

Results

   Analysis strategy. We performed ordinary least squares analyses, regressing each Time 2

memory criterion onto Time 2 trust, controlling for initial diary reports of the corresponding

criterion. Initially, we performed separate analyses for own and partner transgressions; in later

analyses we represented actor (own vs. partner transgressions) as a factor in mixed-model

analyses. We initially tested the Trust and Partner Moderation Hypotheses using analyses that

included effects for participant sex; these analyses revealed no significant sex effects, so we

dropped this variable from the analyses.

   Descriptive Statistics. Table 1 (rows labeled *Study 4*) presents the means and standard

deviations of initial reports, memory criteria, and memory biases. It also presents the percent of

participants exhibiting positive, negative, and no memory bias for each memory criterion. On

average, participants exhibited positive memory bias for recalled number of partner

transgressions. They also exhibited negative memory bias for recalled perceived severity, sadness,

and anxiety for partner transgressions and for recalled perceived severity and anxiety for own

transgressions. Participants did not exhibit statistically reliable memory bias for the remaining

measures. Next, we examined whether trust predicted systematic deviations from these normative

tendencies.

  Testing the Trust Hypothesis. Separately for partner and own transgressions, we regressed

Time 2 recalled number of transgressions, perceived severity of transgressions, anger, sadness,

and anxiety onto Time 2 trust, controlling for initial diary reports of the corresponding criterion.

Each initial report was a reliable predictor of its corresponding memory criterion (see Table 6; one

$p = .071$, remaining nine ps < .03). Despite these large effects and consistent with the Trust

Hypothesis in combination with the Partner Moderation Hypothesis, trust predicted all five

memory criteria for partner transgressions beyond the effects of the initial reports (see Table 6,

statistics under *Partner Transgressions*; all ps < .05) but none of the memory criteria for own

transgressions (see Table 6, statistics under *Own Transgressions*; all ps > .19). That is, people

with high (relative to low) trust in their partner remembered fewer partner transgressions,

remembered partner transgressions as less severe, and recalled experiencing less anger, sadness,

and anxiety in response to partner transgressions, controlling for their initial reports.

  Testing the Partner Moderation Hypothesis. To test the Partner Moderation Hypothesis,

we performed mixed-model analyses, predicting each memory criterion from the actor effect (own

vs. partner transgressions), trust, and the trust × actor interaction, in addition to controlling for

initial diary reports of the corresponding criterion. The trust × actor interaction was significant or

marginal for four of five memory measures—for recalled number of transgressions, perceived

severity of transgressions, sadness, and anxiety (βs = .41, .39, .70, and .57, all ps < .09). As

anticipated, in each instance, the pattern of the interaction was that trust-inspired biased memory was stronger for partner transgressions (see the solid lines in Figure 1) than for own transgressions (see the dotted lines). Figure 1 also illustrates that the well-established tendency for people to view others' transgressions against them as more severe than their own transgressions against others (e.g., Baumesiter, Stillwell, & Wotman, 1990) is evident among those with relatively low trust in their partner (see the left side of each panel; all $ps < .05$) but disappears among those with relatively high trust in their partner (see the right side of each panel; all $ps > .31$).

Testing the Unique Variance Hypothesis. To explore whether the findings in support of the Trust Hypothesis might be attributable to any of several variables with which trust or recollections might be associated, we replicated the five partner transgression analyses from Table 6, predicting recollections from trust, initial diary ratings of each criterion, and, in turn, Time 2 commitment, Time 1 satisfaction, Time 1 self-esteem, Time 1 attachment security and anxiety and avoidance, and Time 1 self-deception and impression management. In each analysis, we entered trust, the corresponding initial report, and the potential confound simultaneously. To allow for quantitative summary of our findings, we reverse-scored memory criteria and their corresponding initial reports as appropriate so that positive coefficients reflect stronger positive memory bias. Results are presented in Table 3 (see rows labeled *Study 4*). Across the full complement of confound analyses, the coefficient for trust remained significant or marginal in the predicted direction in 20 of 25 analyses (average $\beta = .28$); coefficients for the potential confounds typically were nonsignificant (average $\beta = -.01$; only 4 of 40 coefficients were significant or marginal). Thus, trust accounted for unique variance in biased memory beyond variance attributable to any of these potential confounds.

To explore whether the findings in support of the Partner Moderation Hypothesis might be attributable to commitment, satisfaction, self-esteem, dispositional forgiveness, attachment

orientations, or socially desirable response tendencies, we replicated the four mixed-model analyses for which we observed significant or marginal trust × actor interactions controlling, in turn, for each potential confound variable and the potential confound × actor interaction. In each analysis, we entered the trust × actor interaction and the potential confound × actor interaction simultaneously. Results are presented in Table 5 (see rows labeled *Study 4*). The trust × actor interaction remained significant or marginal in 16 of 20 analyses (average β = .51); coefficients for the potential confound × actor interaction typically were nonsignificant (average β = .07; only 2 of 32 coefficients were significant or marginal).

Discussion

Like Studies 1 through 3, Study 4 supported the Trust Hypothesis: To the extent that participants experienced stronger trust in their partners, they tended to recall partner transgressions as less numerous, severe, and consequential than they initially reported. Study 4 also supported the Partner Moderation Hypothesis for 4 of 5 memory criteria. Trust-inspired biased memory was stronger for memories regarding the partner's transgressions than for memories regarding one's own transgressions, not only for recalled number of transgressions, but also for recalled perceived severity of transgressions, sadness, and anxiety. These results lend credence to the assertion that trust—and not any other variable that would be expected to predict memory bias of both own and partner behavior—predicts biased memory of transgressions in romantic relationships. Our Study 4 findings also supported the Unique Variance Hypothesis. As in previous studies, neither trust-inspired biased memory nor its partner-specific nature was attributable to any of several potential confounds.

General Discussion

The present work tested the idea that one's trust in one's romantic partner predicts whether one will remember the past in a way that prioritizes relationship-promotion or self-protection,

leading to benevolent or malevolent memories of partner transgressions, respectively. Findings from four longitudinal studies demonstrated that trust predicts people's recollections of transgressions in romantic relationships and that this phenomenon is partner-specific, such that trust-inspired biased memory is stronger for recollections of one's partner's behavior than for recollections of one's own behavior following transgressions. Moreover, these findings were not attributable to any of a large array of potential confounds.

Trust Hypothesis

We reasoned that, because people with high (relative to low) trust tend to expect that their partner will act in accordance with their interests, they have the luxury of remembering the past in a way that prioritizes relationship dependence over self-protection. That is, they tend to exhibit relationship-promoting memory biases regarding transgressions the partner had enacted in the past, recalling them in a positive, prorelationship way when accounting for how they initially viewed them. Equivalently, because people with low (relative to high) trust tend to be uncertain about whether their partner will act in accordance with their interests, they feel compelled to remember the past in a way that prioritizes self-protection over relationship dependence. That is, they tend to exhibit self-protective memory biases regarding transgressions the partner had enacted in the past, recalling them in a negative, self-protective—and antirelationship—way when accounting for how they initially viewed them. Thus, our Trust Hypothesis predicted that, to the extent that people possess high (vs. low) trust in their partner, they will recall that their partner committed fewer prior transgressions and will recall prior transgressions as less severe and consequential than they initially reported. We observed strong support for the Trust Hypothesis across all four studies. In each study, we obtained initial reports to demonstrate that trust predicts the character of people's present memories beyond variance attributable to the manner in which they originally reported the transgressions, close to the time the behaviors transpired. Across the

full complement of analyses that controlled for relevant initial reports, we observed significant associations of trust with recollections of partner transgressions in 14 of 16 instances. These results emerged despite the fact that some degree of memory bias likely already transpired by the time we obtained our initial reports. Moreover, we observed support for the Trust Hypothesis in analyses that examined both (a) incident-specific recall, or memories regarding specific prior partner behaviors (Studies 1 and 2), and (b) aggregated recall, or global memories regarding all partner behaviors that transpired during a given time period (Studies 1, 3, and 4). As such, our findings provide strong support for the Trust Hypothesis.

Of course, despite the existence of memory bias, recollections are not completely out of touch with reality. In every analysis that examined the association of trust with recollections, memory criteria were associated not only with trust, but also with the corresponding initial report, an index of the manner in which a given transgression was experienced at the time it transpired. Indeed, coefficients for initial reports were uniformly higher than coefficients for trust. Thus, trust does not render initial perceptions of a partner's actions irrelevant. Rather, it predicts significant variance in the part of participants' memory that does not correspond to their initial reports—that is, the part of their perceptions that changed from the time they initially reported on the transgressions to the time they reported on their memories of the transgressions.

Partner Moderation Hypothesis. We reasoned that, because high trust licenses people to be relatively unguarded and prioritize relationship-promotion over self-protection—and because low trust requires people to be more cautious and prioritize self-protection over relationship-promotion (Murray et al., 2006)—trust is especially relevant to memories of the partner's behavior. That is, trust-inspired biased memory should be partner-specific. Thus, our Partner Moderation Hypothesis predicted that the association of trust with biased memory would be stronger for recollections regarding (a) the number and severity of partner transgressions than of

own transgressions and (b) the partner's behavior following transgressions than one's own

behavior following transgressions. We observed moderate support for the Partner Moderation

Hypothesis in Study 3 and strong support for it in Study 4. Across the full complement of analyses

that compared partner and own behavior, the association of trust with biased memories was

significantly or marginally stronger for partner than own behavior in 6 of 9 instances. These

results provide support for the conclusion that the association of trust and biased memories is not

attributable to general relationship positivity because, if it were, one would expect trust-inspired

memory bias to be evident to a similar degree for both partner and own behavior. These findings

represent an important extension to prior work examining memory biases in relationships; no

other work has compared biases in memories of one's own behavior to biases in memories of

one's partner's behavior.

Unique Variance Hypothesis

To establish that these effects were driven by trust per se, rather than by some other variable,

we sought to demonstrate that neither the association of trust with memory nor its partner-specific

nature was attributable to previously identified predictors and other plausible predictors of

memory bias in relationships. Across the four studies, we sequentially pit trust against several

potential confounds, exploring whether partner-specific trust predicted memory bias of

transgressions more powerfully than: (a) the relationship-specific variables of commitment or

satisfaction; (b) the person-level traits of self-esteem, dispositional forgiveness, or attachment

orientations; or (c) the socially desirable response tendencies of self-deception and impression

management. As shown in Table 3, trust was the clear winner in each of the head-to-head battles.

We also performed a meta-analysis of our findings, calculating average coefficients and *t*-values

for trust and each potential confound against which it was pitted, reverse-scoring criteria where

appropriate such that positive values represent positive memory bias, and weighting statistics by the sample size for each study. The results of this meta-analysis are displayed in Table 7.

As anticipated, trust reliably predicted memory bias beyond variance attributable to the potential confounds that we examined—five of six meta-analytic coefficients were significant and the remaining coefficient was marginal (average $\beta = .28$). And, importantly, despite the plausibility of each of these variables as alternative explanations of the trust-memory association, meta-analytic coefficients for the potential confounds were in no case even marginally significant (average $\beta = .01$, all ps > .542). These findings demonstrate that trust is the dominant factor in predicting memory bias of partner transgressions in romantic relationships, even relative to related constructs like satisfaction, commitment, self-esteem, and attachment security.

These findings represent a second important extension beyond prior work because, of the six previously published reports examining memory biases in relationships reviewed in the Introduction, five did not control for any potential confounds (Feeney & Cassidy, 2003; Gentzler & Kerns, 2006; Karney & Coombs, 2000; McFarland & Ross, 1987; Sprecher, 1999). The remaining report controlled for neuroticism and, because it examined memories of a laboratory-based conflict discussion, how much participants talked with their partners about the discussion (Simpson et al., 2010). Relative to previous studies, then, the present study did considerably more to identify which specific variable is most crucial in predicting memory bias in relationships, at least regarding transgressions. The results were quite clear in demonstrating not only that trust reliably predicts unique variance in biased memory of transgressions beyond the effects of the six potential confounds, but also that those potential confounds fail to reliably predict unique variance in memory bias beyond the effects of trust (see Table 7). According to our theoretical analysis, which builds on the risk regulation model (Murray et al., 2006), trust is the most important predictor of biased memory of transgressions because, more than any other construct, it reflects

expectations regarding a partner's future treatment of the self. Trusting expectations of positive

treatment allow one to focus on promoting one's dependence on the relationship and to view past

partner transgression in a benign light. Uncertainty or expectations of negative treatment compels

one to prioritize protecting oneself and to view past partner transgressions in a malign light.

Broader Implications and Future Directions

The current investigation underscores the importance of trust in romantic relationships. Trust

has long been identified as one of the most important variables in the relationships literature,

predicting many positive outcomes (for reviews, see Simpson, 2007a, 2007b). For example,

people with high (relative to low) trust in their partner are more willing to become highly

dependent on their partner (e.g., Murray & Holmes, 2008, 2009; Wieselquist et al., 1999) and are

more likely to be securely attached (e.g., Mikulincer, 1998; Simpson, 1990). Complementing

these previously established benefits of trust, the current work identified an important new

correlate of trust in relationships. Because trusting individuals have faith in their partner's future

benevolence toward the self, they are more likely than less trusting individuals to be able to afford

not to recall every instance and negative consequence of their partner's transgressions. However,

because less trusting individuals do not share this faith in their partner's benevolence toward the

self, they are more likely than more trusting individuals to protect themselves by recalling their

partner's transgressions as more numerous, severe, and consequential than they initially reported.

By identifying a new role of trust in relationships, the current work suggests that the importance

of trust may still be underappreciated.

Our theoretical analysis and findings indicate that biased memory of partner transgressions

is based on current levels of trust. An intriguing direction for future research is to test whether

memories regarding a specific past transgression fluctuate over time as one's current trust in the

partner fluctuates. For example, imagine someone whose spouse acted in a disrespectful manner

last month but who currently experiences strong trust in that spouse. Right now, this person would likely underestimate how severe this transgression seemed shortly after it transpired. Now imagine that this person's trust eroded over the next few weeks, perhaps for independent reasons. How severe would this person recall the spouse's disrespectful behavior next month, when he or she experiences little trust in the spouse? Future research could examine such intraindividual changes in trust and memories over time.

Although the goal of the present report was to examine whether trust predicts biased memory of transgressions in romantic relationships rather than to explore possible mechanisms underlying this association, we note that there are at least two ways in which trust may lead to biased memories. First, trust may act as a schema, and schemas are known to bias memory in a schema-consistent manner (e.g., Higgins & Bargh, 1987; Hirt, McDonald, & Markman, 1998; Srull & Wyer, 1989). As such, strong trust may lead individuals to remember partner transgressions in a positively biased manner over time, whereas weak trust may lead them to do the opposite. Second, when rating their partner's behavior and motives, people with strong trust in their partner make attributions that enhance their partner and emphasize the positive aspects of their relationship, but people with weak trust make unfavorable attributions (Miller & Rempel, 2004; Rempel, Ross, & Holmes, 2001). Attributing a partner's misdeeds to external, unstable causes, for instance, may well bolster one's trust and buttress one's expectations of one's partner treating the self positively in the future, whereas attributing a partner's misdeeds to internal, stable causes may do the opposite. Moreover, memories tend to become less accurate each time they are retrieved because at each retrieval occurrence, recall is based on prior retrievals to a greater extent and on the original event to a lesser extent (Bridge & Paller, 2012). Thus, to the extent that people retrieve memories of partner transgressions repeatedly, biased memory is likely to compound over time.

Future research could fruitfully examine these possible mechanisms underlying trust-inspired biased memory.

Limitations and Strengths

Before closing, we acknowledge several limitations of the present work. First, we did not experimentally manipulate trust in the present work (which was also the case in all previous studies of memory bias in relationships), so we cannot form confident conclusions regarding cause and effect. Second, as noted earlier, we studied memory bias in the context of just one type of relational event—transgressions. To be sure, memory bias of transgressions is important because transgressions are high-impact events that highlight the conflicting goals of relationship-promotion and self-protection. Indeed, according to our theoretical analysis, which builds on the risk regulation model (Murray et al., 2006), a person's trust in their partner determines which of these two goals he or she prioritizes and the prioritized goal directs biased memories of partner transgressions. Nonetheless, examining memories of other types of relational events, especially positive events, is an important direction for future research. Third, when testing our Partner Moderation Hypothesis, we compared memories of partner transgressions to memories of own transgressions. This comparison presented a conservative test of the Partner Moderation Hypothesis in conjunction with the Unique Variance Hypothesis because one would expect other variables such as general relationship positivity to yield biased memory of both partner and own behavior. Nonetheless, future research could compare memories of partner transgressions to memories of transgressions committed by another person.

We also observe several strengths of the present work. First, our theoretical analysis, which builds on the risk regulation model (Murray et al., 2006), provides a more sophistical theoretical analysis of biased memories in relationships than the sentiment override hypothesis (Weiss, 1980) upon which the majority of past research on this topic has been built and which has yielded

inconsistent results. Second, we employed rigorous methods to test our hypotheses: We conducted four longitudinal studies examining both established dating and fledgling romantic relationships and we employed residualized-lagged analyses to examine change in memories of transgressions over time (all previous articles of memory bias in relationships included only one or two studies). Third, as already noted, we extended prior work examining biased memory in close relationships in two important ways. Previous research did little to rule out alternative explanations of biased memory in relationships; we controlled for many potential confounds and found that trust-inspired biased memory of transgressions is not attributable to commitment, satisfaction, self-esteem, dispositional forgiveness, attachment orientations, or socially desirable response tendencies. In addition, previous research did not compare biases in memories of one's own behavior and biases in memories of one's partner's behavior; we did and found that trust-inspired biased memory is stronger for partner behavior than own behavior. Fourth, we examined two types of memory bias, exploring both (a) incident-specific recall, or memories regarding specific transgressions; and (b) aggregated recall, or global memories regarding all transgressions that transpired during a given time period. And fifth, we examined diverse memories, including recalled number of transgressions, recalled perceived severity of transgressions, recalled victim forgiveness and perpetrator amends, recalled desire for continued involvement, and recalled affective responses.

Conclusions

The present work examined a type of cognitive bias about which we knew relatively little—the tendency toward biased recall of transgressions in romantic relationships. Almost inevitably, close partners will do something that hurts or upsets each other at some point. Once they experience a transgression, how might partners' perceptions of transgressions change over time and what might motivate such change? We demonstrated that the greater a person's trust in their partner, the more benevolently they tend to remember the number, severity, and consequentiality

of their partner's past transgressions. These findings are reminiscent of the memories Elizabeth Bennet—the protagonist of Jane Austen's (1813) *Pride and Prejudice*—has of Mr. Darcy's behavior. Because of a series of misunderstandings, Elizabeth long harbored a deep distrust for Mr. Darcy. Then, she learned of Darcy's goodwill toward her and others, causing a complete reversal of her trust in him. Her newfound trust afforded her the opportunity to benefit from a poor memory of Darcy's past behavior, recalling his actions in a positive light relative to her initial views. And "in such cases as these a good memory is unpardonable."

Footnotes

[1] Because our theoretical analysis suggests that the experience of trust at the moment people recall past transgression is the source of biased memory, we assessed trust concurrently with the memory reports. For example, in the present study we examined the association of long-term, aggregated memories with the measure of trust obtained during Time 2 sessions. However, we examined short-term, incident-specific memories using Time 1 measures of trust because (a) it was the only measure available for the 38% of our sample who broke up with their partner before the end of the study and (b) it was frequently more temporally proximal to the memory report.

[2] There were more coefficients for potential confounds than for trust in this and subsequent studies because analyses controlling for attachment orientations (anxiety and avoidance in Studies 1-3; security, anxiety, and avoidance in Study 4) and socially desirable response tendencies (self-deception and impression management) included more than one potential confound variable per analysis.

[3] Specifically, participant sex moderated the effect of trust and the trust $\times$ actor interaction term on recalled number of partner transgressions. In each case, the effect was stronger among women than among men.

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Table 1
Descriptive Statistics of Initial Reports, Memory Criteria, Memory Biases, and Percent of Participants Exhibiting Positive, Negative, and No Memory Bias, All Four Studies

	Initial Report		Memory Criterion		Memory Bias[a]		% Exhibiting Type of Memory Bias[b]		
	M	*SD*	*M*	*SD*	*M*	*SD*	Pos.	None	Neg.
Study 1									
Short-term, incident-specific recall									
Perceived severity	2.73	1.92	2.75	1.95	-0.01	1.28	22	53	25
Perpetrator amends	4.86	2.00	5.16	1.71	0.30*	1.51	36	41	24
Victim forgiveness	5.49	1.63	5.66	1.45	0.17†	1.31	29	47	24
Long-term, aggregated recall									
Perceived severity	2.53	1.59	2.70	1.86	-0.16	1.60	39	27	33
Perpetrator amends	5.12	1.56	5.49	1.60	0.36	1.37	54	18	27
Victim forgiveness	5.66	1.30	6.09	1.04	0.43**	0.86	64	21	15
Study 2									
Desire for continued involvement	4.18	2.02	3.88	2.00	0.30†	1.74	35	40	24
Study 3									
Partner transgressions									
Number of transgressions	2.26	1.73	3.26	3.33	-1.00***	2.03	6	46	48
Perceived severity	2.87	1.40	2.87	1.56	0.00	1.09	45	13	42
Perpetrator amends	3.65	1.72	4.63	1.62	0.99***	1.19	77	8	15
Victim forgiveness	5.14	0.91	5.62	0.91	0.49***	0.65	72	8	20
Own transgressions									
Number of transgressions	1.23	0.91	1.76	1.60	-0.52***	1.18	8	55	37
Perceived severity	2.56	1.50	2.53	1.67	0.03	1.09	32	30	38
Perpetrator amends	4.22	1.50	4.84	1.59	0.62**	1.51	58	14	28
Victim forgiveness	5.01	1.18	5.37	1.09	0.36**	0.83	66	10	24
Study 4									
Partner transgressions									
Number of transgressions	2.40	2.78	1.69	1.48	0.71*	2.13	41	52	7
Perceived severity	1.91	1.66	2.91	2.06	-0.99***	1.51	15	26	59
Anger	3.71	1.38	4.06	1.94	-0.35	1.87	33	15	52
Sadness	3.44	1.61	3.95	1.99	-0.51*	1.74	28	11	60
Anxiety	2.53	1.45	3.06	1.86	-0.53*	1.64	20	15	65
Own transgressions									
Number of transgressions	1.38	0.74	1.32	1.01	0.06	0.95	27	56	18
Perceived severity	1.16	1.44	1.70	1.68	-0.54*	1.37	23	27	50
Anger	2.55	1.64	2.97	2.01	-0.42	2.10	43	10	47
Sadness	2.27	1.62	2.75	2.19	-0.48	1.62	30	17	53
Anxiety	1.71	1.51	2.28	1.61	-0.58*	1.32	23	30	47

Note. Except for number of transgressions, all reports were made on 1-7 scales.
†$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$.
[a] Memory bias scores were calculated so that positive numbers indicate positive memory bias (i.e., memory criterion minus initial report for positively valenced items; initial report minus memory criterion for negatively valenced items).
[b] This column compares the initial report to the memory criterion for each person and reports the number of people whose memory criterion was more positive than the initial report ("Pos."), exactly equal to the initial report ("None"), or more negative than the initial report ("Neg.").

Table 2

Memory Regarding Partner Transgressions: Recalled Perceived Severity of Transgressions, Perpetrator Amends, and Victim Forgiveness, Study 1

	Short-Term, Incident-Specific Recall			Long-Term, Aggregated Recall		
	β	*t*	*p*	β	*t*	*p*
Recalled Perceived Severity of Transgressions						
Trust	−.36	−2.34	.021	−.18	−1.09	.283
Perceived Severity, Initial Reports	.71	12.32	<.001	.50	3.11	.004
Recalled Perpetrator Amends						
Trust	.13	0.75	.453	.30	2.27	.030
Perpetrator Amends, Initial Reports	.53	10.45	<.001	.62	4.72	<.001
Recalled Victim Forgiveness						
Trust	.54	3.29	.001	.37	3.64	.001
Victim Forgiveness, Initial Reports	.40	7.55	<.001	.67	6.55	<.001

Note. Statistics for short-term, incident-specific recall are from multilevel regression analyses based on data from 55 to 56 individuals; *n* varies across analyses due to missing data for some variables. Statistics for long-term, aggregated recall are from ordinary least squares regression analyses based on data from 33 individuals.

Table 3

Pitting Trust Against Alternative Variables as Predictors of Biased Memory: Results of Confound Analyses Conducted for Each Result in Support of the Trust Hypothesis, All Four Studies. Table Values are Standardized Regression Coefficients.

	Trust vs. Commitment		Trust vs. Satisfaction		Trust vs. Self-Esteem		Trust vs. Dispositional Forgiveness		Trust vs. Attachment Orientations				Trust vs. Socially Desirable Responding		
	Trust	Com	Trust	Sat	Trust	SE	Trust	Forg	Trust	Anx	Avd	Sec	Trust	SDec	IMan
Study 1															
Short-term, incident-specific recall															
Perceived severity	.37*	.00	.08	.29	.34*	.09	.40*	.12	.31†	-.03	-.16		.33*	.06	.05
Victim forgiveness	.45*	.16	.60*	-.06	.53**	.02	.48**	.16†	.68**	.21	-.08		.57***	-.03	.09
Long-term, aggregated recall															
Perpetrator amends	.23	.11	.24	.07	.30*	-.01	.30*	-.24†a	.20	-.09	-.23		.30*	-.02	.08
Victim forgiveness	.31*	.10	.21	.20	.38**	.08	.37**	.00	.36**	-.01	-.04		.38***	-.14	.25*
Study 2															
Desire for continued involvement					.20*	.04	.21*	.09	.18*	.05	-.05				
Study 3															
Partner transgressions															
Number of transgressions	.24*	-.07	.19*	.00	.21**	-.07	.19**	.01	.19**	-.03	.03		.17*	-.05	.07
Perceived severity	.26*	-.11	.29*	-.13	.21*	-.05	.20*	-.03	.21*	.15	-.12		.28**	.04	-.24*a
Perpetrator amends	.21*	.06	.12	.19	.26**	-.05	.23*	.06	.24*	-.06	.03		.28**	-.15	.05
Victim forgiveness	.36**	-.26*a	.34*	-.20	.18†	.03	.17†	.14	.18†	-.01	-.01		.16	.16	-.02
Own transgressions															
Perceived severity	.07	.16	.07	.14	.18†	-.02	.14	.09	.10	.00	-.19†		.23*	.00	-.14
Perpetrator amends	.26†	.16	.11	.35*	.35**	.00	.46***	-.25*a	.37**	.11	-.03		.41**	-.33*a	.03
Victim forgiveness	.46***	-.06	.54***	-.17	.44***	-.07	.36***	.17†	.43***	.01	.01		.36***	-.01	.17†
Study 4															
Partner transgressions															
Number of transgressions	.33**	-.04	.32*	.00	.32**	.11			.27*	-.17	-.14	-.04	.33**	.04	-.08
Perceived severity	.31*	-.01	.30*	.01	.30**	.00			.24*	-.24*	-.04	.11	.31**	.14	-.09
Anger	.18	.23†	.12	.24	.28*	.14			.22	-.18	-.10	.00	.27†	-.07	.04
Sadness	.25*	.00	.22	.05	.26*	-.02			.23†	-.06	-.06	.10	.23†	-.03	.10
Anxiety	.34**	.07	.22	.26†	.37**	.04			.34**	-.22†	-.06	-.15	.35**	.04	.07

Note. Com = commitment, Sat = satisfaction, SE = self-esteem, Forg = dispositional forgiveness, Anx = anxious attachment, Avd = avoidant attachment, Sec = secure attachment, SDec = self-deception, IMan = impression management. We conducted each analysis by regressing a given memory criterion simultaneously onto trust and one or more potential confounds, controlling for the corresponding initial report. Analyses examining attachment orientations and socially desirable responding included two or three potential confounds in each analysis (e.g., both self-deception and impression management, along with trust). We reverse-scored memory criteria and their corresponding initial reports as appropriate so that positive coefficients reflect stronger positive memory bias. Empty cells indicate that the potential confound was not assessed in the corresponding study.

†*p* < .10, *p* < .05, **p* < .01, ***p* < .001.
[a] The coefficient was marginal or significant in the opposite-than-expected direction.

Table 4

Memory Regarding Partner and Own Transgressions: Recalled Number of Transgressions, Perceived Severity of Transgressions, Perpetrator Amends, and Victim Forgiveness, Study 3

	Partner Transgressions			Own Transgressions		
	β	t	p	β	t	p
Recalled Number of Transgressions						
Trust	−.19	−3.04	.003	−.03	−0.30	.765
Number of Transgressions, Diary Reports	.81	12.85	<.001	.68	7.26	<.001
Recalled Perceived Severity of Transgressions						
Trust	−.20	−2.17	.034	−.17	−1.87	.067
Perceived Severity, Diary Reports	.68	7.58	<.001	.73	8.01	<.001
Recalled Perpetrator Amends						
Trust	.25	2.73	.008	.35	3.01	.004
Perpetrator Amends, Diary Reports	.64	7.07	<.001	.47	4.10	<.001
Recalled Victim Forgiveness						
Trust	.19	2.14	.037	.42	5.19	<.001
Victim Forgiveness, Diary Reports	.69	7.75	<.001	.64	7.95	<.001

Note. Statistics are from ordinary least squares analyses based on data from 50 to 54 individuals for analyses examining own transgressions, and from 60 to 64 individuals for analyses examining partner transgressions; *n* varies across analyses due to missing data for some variables.

Table 5

Pitting Trust Against Alternative Variables as Predictors of Partner-Specific Biased Memory: Results of Confound Analyses Conducted for Each Result in Support of the Partner Moderation Hypothesis, Studies 3 and 4. Table Values are Standardized Regression Coefficients.

	Trust vs. Commitment		Trust vs. Satisfaction		Trust vs. Self-Esteem		Trust vs. Dispositional Forgiveness		Trust vs. Attachment Orientations				Trust vs. Socially Desirable Responding		
	Trust	Com	Trust	Sat	Trust	SE	Trust	Forg	Trust	Anx	Avd	Sec	Trust	SDec	IMan
Study 3															
Number of transgressions	.37**	-.16	.30*	-.06	.26**	-.02	.23*	.07	.22*	-.06	-.01		.24*	-.07	.10
Victim forgiveness	.14	.14	.23	.01	.27*	-.11	.20†	.04	.25*	.02	.02		.20†	-.13	.17
Study 4															
Number of transgressions	.42*	.02	.43†	-.01	.41†	-.02			.37	.02	.25	.04	.38†	-.21	.10
Perceived severity	.40†	-.08	.30	.36	.42†	.02			.41	.31	.43	.46	.53*	-.12	-.19
Sadness	.72*	-.07	.61*	.28	.72*	.03			.61*	.10	.64*	.50	.73*	-.12	-.09
Anxiety	.57*	.00	.43	.49	.58*	-.15			.48†	.26	.54*	.23	.58*	-.02	.01

Note. Com = commitment, Sat = satisfaction, SE = self-esteem, Forg = dispositional forgiveness, Anx = anxious attachment, Avd = avoidant attachment, Sec = secure attachment, SDec = self-deception, IMan = impression management. We conducted each mixed-model analysis by predicting a given memory criterion simultaneously from the actor effect (own vs. partner transgressions), trust, the trust × actor interaction, one or more potential confounds, and the potential confound(s) × actor interaction, controlling for the corresponding initial report. Analyses examining attachment orientations and socially desirable responding included two or three potential confounds in each analysis (e.g., both self-deception and impression management, along with trust). Positive coefficients reflect stronger memory bias regarding partner behavior than regarding own behavior. Empty cells indicate that the potential confound was not assessed in the corresponding study.
†$p < .10$, *$p < .05$, **$p < .01$, ***$p < .001$.

Table 6

Memory Regarding Partner and Own Transgressions: Recalled Number of Transgressions, Perceived Severity of Transgressions, Anger, Sadness, and Anxiety, Study 4

	Partner Transgressions			Own Transgressions		
	β	*t*	*p*	β	*t*	*p*
Recalled Number of Transgressions						
Trust	−.32	−2.95	.005	−.05	−0.29	.773
Number of Transgressions, Diary Reports	.51	4.72	<.001	.45	2.74	.010
Recalled Perceived Severity of Transgressions						
Trust	−.30	−2.76	.008	.00	0.00	.999
Perceived Severity, Diary Reports	.53	4.84	<.001	.63	4.19	<.001
Recalled Anger						
Trust	−.27	−2.05	.046	−.02	−0.13	.894
Anger, Diary Reports	.31	2.36	.022	.35	1.88	.071
Recalled Sadness						
Trust	−.25	−2.21	.031	.09	0.62	.541
Sadness, Diary Reports	.50	4.41	<.001	.67	4.75	<.001
Recalled Anxiety						
Trust	−.37	−3.41	.001	.20	1.34	.191
Anxiety, Diary Reports	.47	4.30	<.001	.60	4.10	<.001

Note. Statistics are from ordinary least squares analyses based on data from 30 to 44 individuals for analyses examining own transgressions, and from 53 to 58 individuals for analyses examining partner transgressions; *n* varies across analyses due to missing data for some variables.

Table 7
Pitting Trust Against Alternative Variables as Predictors of Biased Memory: Meta-Analysis of Confound Analyses

Predictors in Model:	Trust			Potential Confound		
	β	t	p	β	t	p
Commitment vs. Trust						
(Studies 1, 3, and 4)	.30	2.31	.022	.04	0.23	.818
Satisfaction vs. Trust						
(Studies 1, 3, and 4)	.25	1.69	.093	.08	0.49	.625
Self-Esteem vs. Trust						
(all studies)	.29	2.68	.008	.02	0.05	.960
Dispositional Forgiveness vs. Trust						
(Studies 1, 2, and 3)	.28	2.67	.008	.02	0.61	.543
Attachment Orientations vs. Trust						
Anxious Attachment (all studies)	.27	2.30	.022	−.03	−0.14	.889
Avoidant Attachment (all studies)				−.06	−0.56	.576
Secure Attachment (only Study 4)				.00	0.05	.960
Socially Desirable Responding vs. Trust						
(Studies 1, 3, and 4)						
Self-Deception	.32	2.76	.006	−.02	−0.12	.901
Impression Management				.02	0.18	.857

Note. Within-studies, statistics were averaged across all memory criteria for which significant or marginal associations with trust were evident; across studies, meta-analytic averages were weighted by the sample size for each study. Each discrete analysis entailed regressing a given memory criterion simultaneously onto trust and one or more potential confounds, controlling for the relevant initial report. Analyses examining attachment orientations and socially desirable responding included two or three potential confounds in each analysis (e.g., both self-deception and impression management, along with trust).

Figure 1

Study 4: Predicting recalled number of transgressions (Panel A), recalled perceived severity of transgressions (Panel B), recalled anger (Panel C), recalled sadness (Panel D), and recalled anxiety (Panel E) from trust and actor (partner vs. self). Each panel presents model implied levels of the memory criterion controlling for the mean value of the corresponding initial report. The memory criteria presented in panels B-E were assessed on a 0-6 scale.