AN UPSIDE TO DISAPPOINTMENT IN ROMANTIC RELATIONSHIPS

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Despite considerable interest in understanding how negative emotional expressions affect close relationships, there has been scant attention to the function of disappointment. The present dissertation aims to address the gap in the literature and provide a first examination of disappointment in romantic relationships. Using qualitative free recall, quantitative self-report, and daily-diary methodologies, Chapter 2 examines the frequency of negative emotional experiences in dating individuals, and confirms that disappointment is a frequently experienced negative emotion in romantic relationships. Participants report experiencing disappointment as frequently as anger, sadness, and jealousy, which are arguably the most often studied emotions in close relationships. Therefore, studying disappointment in the context of romantic relationships possesses theoretical significance in understanding negative emotional experiences in romantic relationships. Using diverse methodologies and large samples of married participants, Chapter 3 provides a first look at the function of perceiving disappointment from romantic partners. In an exploratory phase, participants described a past event wherein their partner expressed disappointment, as well as their emotional reactions and construals of their partner's intentions and their motivation to change. Most participants reported that they experienced negative emotions in response to their partner's disappointment. However, they also reported benign construals of their partner's intentions and experiencing relationship-promoting motivations. In a theory-confirmation phase, three experiments provided strong causal evidence that perceiving

partner's disappointment boosts relationship-promoting motivations, compared to reflecting on an ordinary interaction with one's partner, and compared to perceiving partner's anger. Chapter 4 complements the findings in Chapter 3 by investigating the role of individual differences in chronic relationship quality on the downstream consequences of perceiving partner's disappointment. Participants with high-quality relationships are more likely to generate benign construals of partner's intentions, which in turn, experience enhanced relationship-promoting motivations. Finally, Chapter 5 discusses the social-functional implications of disappointment and synthesizes potential future research.

BIOGRAPHICAL SKETCH

Fangming Cui received her B.A. degrees in Psychology and Brain & Cognitive Science from the University of Rochester. Following her undergraduate studies, she became a graduate student in Psychology at Cornell University. She joined the Person and Context (PAC) lab led by Prof. Vivian Zayas, and studied emotions and motivations in the context of romantic relationships. She received her M.A. in 2020 and her Ph.D. in 2023 from Cornell University. After graduating, Fangming will join the Department of Anthropology at the University of Helsinki, Finland, where she will continue working on negative emotional experiences in close relationships and exploring the understudied negative emotion of irritation.

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Introduction

Emotions serve social functions in interpersonal relationships (Frijda & Mesquita, 1994; Lazarus, 1991). Emotional expressions in one partner influence the affective and behavioral responses of the other partners who witness the emotions (Frijda, 1986; Izard, 1993). In turn, such emotional expressions have a profound impact on relationship functioning (Zayas, Shoda, & Ayduk, 2002). Given the social-functional value of emotions, there has been a longstanding interest in the role of emotional expressions in relationship research.

Of all literature on emotional expressions in close relationships, much of past work focuses on the function of negative emotions, such as anger (Gottman & Levenson, 1992), sadness (Clark & Brissette, 2003), and jealousy (Fitness & Fletcher, 1993). But aside from discussions of the conceptualization of negative emotions, existing work has yet to examine how expressions of disappointment operate in romantic relationships. Partners in committed relationships constantly establish expectations about how each other behaves in the relationships (Berscheid, 1983). However, it is inevitable that sometimes one partner fails to meet the other partner's expectations, resulting in the other partner's disappointment. How does one react – affectively, cognitively, and motivationally – to a partner's expression of disappointment?

The present dissertation aims to provide a first examination of the function of perceiving disappointment in romantic relationships. Chapter 2 starts with a simple question: What negative emotions do people frequently experience in their relationships? Using qualitative free recall, quantitative self-report (Study 1), and daily-diary methodology (Study 2), we summarize diverse negative emotions dating participants frequently experience in their romantic relationships. Consistently, dating participants reported annoyance, sadness,

disappointment, frustration, anger, and anxiety as the most frequently experienced negative emotions in their relationships. Results in Chapter 2 confirm that disappointment is an essential component of people's emotional experiences in romantic relationships, and examining the function of disappointment possesses theoretical significance in advancing our knowledge in relationship research. In addition, Chapter 2 reveals a surprising pattern that annoyance, frustration, and disappointment are free-recalled, rated, and spontaneously reported as the most frequently experienced negative emotions in romantic relationships, even more so than anger, one of the arguably most studied negative emotions in romantic relationships. However, annoyance, frustration, and disappointment have received scant attention in relationship research.

Chapter 3 provides the first empirical examination of the affective, cognitive, and motivational consequences of perceiving disappointment in close relationships. In an exploratory phase, we used a qualitative, bottom-up approach in which participants were asked to describe a past event wherein their partner expressed disappointment, as well as their emotional reactions and construals of their partner's intentions and their motivation to change (Study 1). Most participants reported that they experienced negative emotions in response to their partner's disappointment, but interestingly they also reported benign construals of their partner's intentions and experiencing relationship-promoting motivations. A descriptive, correlational study provided quantitative evidence for the beneficial consequences of perceiving partner's disappointment (Study 2). Critically, in a theory-confirmation phase, three experiments provided strong causal evidence that perceiving partner's disappointment boosts relationship-promoting motivations, compared to reflecting on an ordinary interaction with one's partner (Study 3), and compared to perceiving partner's anger, another negative emotional expression (Studies 4 and 5). Importantly, the beneficial consequences of perceiving disappointment were explained via benign construals of partners' intentions

(Studies 4 and 5). Using diverse methodologies and large samples of married participants, the present work provides evidence that perceiving disappointment in one's romantic partner enhances relationship-promoting motivations

Chapter 4 further investigates the role of individual differences in participants' chronic relationship quality on the downstream consequences of perceiving partner's disappointment. We first explored the correlational effect of a person's chronic relationship quality on the affective, cognitive, and behavioral responses to perceiving partner's disappointment (Study 1). We found that participants with high-quality relationships were more likely to generate benign construals of partners' intentions, which in turn, elicited greater relationship-promoting motivations. To provide experimental evidence for the observed effect of chornic relationship quality, we compared perceiving partner's disappointment to perceiving partner's anger (Study 2) and an ordinary interaction (Studies 3 and 4). Consistently across Studies 2 to 4, we found robust effects that chronic relationship quality associates with benign construals of partner's intentions and relationship-promoting motivation following partner's expressions of disappointment. In addition, the relationship-promoting motivations in those with high-quality relationships were explained via benign construals of partner's intentions. However, we also found positive effects of chronic relationship quality on perceiving partner's anger, which could indicate that chronic relationship quality has a buffering effect on negative emotional experiences that may apply to all negative emotional interactions in romantic relationships.

Finally, Chapter 5 provides a synthesis for potential future research on negative emotional experiences in romantic relationships.

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CHAPTER 2

Frequently Experienced Negative Emotions in Romantic Relationships

Romantic relationships are characterized by high levels of interdependence (Kelley & Thibaut, 1978; Rusbult & van Lange, 2003), in which partners form expectancies about how each other behaves in the relationship (Berscheid, 1983; Finkel, Simpson, & Eastwick, 2017). When these expectancies are violated–a constant and inevitable process of human relationships–one can experience extensive negative emotions (Berscheid & Ammazzalorso, 2001). Therefore, it is safe to say that people experience and express negative emotions even in the most satisfying relationships.

But what kinds of negative emotions do people experience in their romantic relationships? Although extensive work has focused on the function of negative emotions in relationship research (Carstensen, Gottman, & Levenson, 1995; Clark, Fitness, & Brissette, 2001; Fischer & Manstead, 2008; Graham, Huang, Clark, & Helgeson, 2008; Lemay, Overall, & Clark, 2012; Overall, Fletcher, Simpson, & Fillo, 2015), we know little about how frequently we experience certain negative emotions because of our relationships or our partners. This is surprising because despite the longstanding interest in the role of emotions in relationship research, we lack knowledge of the diversity and relative frequency of negative emotional experiences in romantic relationships.

It is not that negative emotions are understudied in relationship research–extensive work has focused on the function of negative emotions, such as anger (Gottman & Levenson, 1992; Karney & Bradbury, 1995), sadness (Clark & Brissette, 2003), and jealousy (Fitness & Fletcher, 1993). However, when examining negative emotions in relationships, existing work tends to adopt a top-down approach, in which researchers make a-priori decisions on the emotion of interest (e.g., anger, sadness, and jealousy). In turn, researchers tend to induce emotion in experimental settings by methods such as memory recall (Cutler, Larson, &

Bunce, 1996; Thomas & Diener, 1990), hypothetical scenarios (Critcher & Zayas, 2014; Salerno & Slepian, 2022), and experience sampling of a subset of emotions (Carstensen, Pasupathi, Mayr, & Nesselroade, 2000; Zelenski & Larsen, 2000). However, unfortunately, these approaches overlook the relative frequency of the negative emotions that generally occur in romantic relationships.

To address this gap, in the current work, using free recall and self-report methodologies (Study 1), and daily-diary reports (Study 2) of dating individuals, we summarize the most frequently experienced negative emotions in dating relationships. Consistently, across two studies, we found that participants reported annoyance, sadness, frustration, disappointment, anger, and anxiety as the most frequently experienced negative emotions in their relationships. To our surprise, participants reported annoyance, disappointment, and frustration as the most frequently experienced negative emotions in their relationships, yet they have received scant attention in relationship research.

Negative Emotions in Close Relationships

People experience and express emotions in all social interactions, especially in close relationships (Berscheid & Ammazzalorso, 2001; Pennebaker, 1995). People experience and express emotions most frequently and intensely in established relationships (Clark & Taraban, 1991; Fehr, Baldwin, Collins, Patterson, & Benditt, 1999). Moreover, negative emotions, such as anger, often occur in intimate relationships (Fischer, Rodriguez, van Vianen, & Manstead, 2004). The experience and expression of negative emotions in one partner affect the other partner, ultimately having profound consequences on the functioning of the relationship (for a review, see Zayas, Shoda, & Ayduk, 2002).

Of all emotional experiences in close relationships, negative emotions may be particularly influential to relationship outcomes. Much empirical work provides evidence for a negativity bias in which negative information (vs. positive information) plays a more

critical role in shaping people's evaluations (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001; Ito, Larsen, Smith, & Cacioppo, 1998; Taylor, 1991). Compared to positive emotions, negative emotions in an interaction partner elicit greater physiological, psychological, and behavioral responses in individuals perceiving the negative emotions (for a review, please see Cacioppo & Gardner, 1999). Therefore, studying negative emotional experiences in the context of close relationships is an essential step in understanding relationship functioning.

Indeed, much relationship research focuses on the role of negative emotions. Expressions of negative emotions, such as contempt and anger in conflict discussions, predict relationship dissolution (Gottman & Levenson, 2002; Karney & Bradbury, 1995). Furthermore, high frequencies of negative emotions and high levels of negative emotional reciprocity predict declines in relationship satisfaction (Carstensen, Gottman, & Levenson, 1995). Research on emotional interdependence suggests that negative emotions in one partner can "spill over" to the other partner (Larson & Almeida, 1999; Westman, 2001), which could ultimately lead to detrimental relationship outcomes.

Among the empirical work examining the effect of negative emotions in close relationships, researchers tend to adopt two approaches in integrating emotion theory with relationship research. One approach categorizes couples' emotional experiences into dimensions, most typically emotion valence and arousal (Larsen & Diener, 1992; Russell, 1980; Posner, Russell, & Peterson, 2005). Research on emotion valence as a function of relationship outcomes tends to reflect the idea of social learning theories (Jacobson & Margolin, 1979). Specifically, positive-valence emotional interactions are expected to lead to positive outcomes (Maisel, Gable, & Strachman, 2008), whereas negative-valence emotional exchanges are expected to undermine relationship functioning (Carrere & Gottman, 1999; Kiecolt-Glaser, Bane, Glaser & Malarkey, 2003; Noller, Feeney, Bonnell, & Callan, 1994). In addition to valence, research on emotion arousal as a function of relationship outcomes

suggests that high emotion arousal coupled with negative-valence emotional expression exacerbates relationship conflict and decreases relationship satisfaction, whereas low emotion arousal mitigates the damage of negative-valence emotional expressions (Baucom, Sheng, Christensen, Georgiou, Narayanan, & Atkins, 2015; Smith, Vivian, & O'Leary, 1990). For example, during problem-solving discussions between romantic couples, greater frequency and higher intensity of negative emotional expressions negatively correlate with marital satisfaction (Smith et al., 1990).

Dovetailing with the dimensional approach, the discrete approach focuses on discrete emotions as a function of relationship outcomes. A range of literature examines the effect of specific negative emotions, such as anger (Gottman & Levenson, 1992; Karney & Bradbury, 1995; Overall, Fletcher, Simpson, & Sibley, 2009), sadness (Clark & Brissette, 2003; Guerrero, La Valley, & Farinelli, 2008), jealousy (Fitness & Fletcher, 1993; Kar & O'Leary, 2013), hurt (Braithwaite, Fincham, & Lambert, 2009; Leary & Springer, 2001; Lemay, Overall, & Clark, 2012), guilt (Baumeister, Stillwell, & Heatherton, 1994; Overall, Girme, Lemay, & Hammond, 2014), and anxiety (Lemay, Lin, & Muir, 2015).

In the current work, we aimed to understand the diversity and the relative frequency of negative emotional experiences in romantic relationships. Therefore, we favor the discrete approach to examine what kinds of negative emotions people experience in their relationships. We asked participants to freely recall and describe in their own words the negative emotions they experienced in their relationships. Using this method, we plea for diversity and inclusivity of all negative emotional experiences, and as a first step, generate an overview of the negative emotional experience pattern in romantic relationships. Nevertheless, we want to eventually categorize participants' negative emotional responses to statistically analyze the frequency of negative emotions. To do so, we followed the emotion prototype by Shaver, Schwartz, Kirson, & O'Connor (1987) while consulting with the past

empirical literature on discrete negative emotions.

Categorization of Negative Emotions

The work by Shaver et al. provided an extensive overview of people's general emotional experiences. The researchers first established a prototype of emotion categories by generating a list of 213 emotional terms based on a synthesis of emotion concepts in literature. Then 112 participants rated the extent to which they thought the 213 terms were emotions, and researchers extracted a list of 135 emotions based on participants' ratings. In the following step, researchers printed each of the 135 emotions on a card, and asked 100 participants to sort the cards on a table to categorize the emotions based on how similar or different the emotions were to each other. Using a 135*135 co-occurrence matrix, researchers categorized 14 negative emotion clusters (irritation, exasperation, rage, disgust, envy, torment, suffering, sadness, disappointment, shame, neglect, sympathy, horror, and nervousness) under the three main negative emotion prototype: anger, sadness, fear.

However, one limitation of the study is that some terms for emotion clusters are infrequently used nowadays. Therefore, we consulted with recent literature to develop emotion clusters that are more appropriate for the current study. For instance, exasperation is a term that is infrequently studied in emotion literature, compared to frustration (Brennan & Shaver, 1995; Gelbrich, 2010; Linder, Crick & Collins, 2002), even though the two emotions are categorized in the same cluster. Similarly, although the emotions are categorized in the same clusters, rage is less examined compared to anger (Carrere & Gottman, 1999; Gottman & Levenson, 1992; Overall & McNulty, 2017); envy is less examined in relationship literature compared to jealousy (Fitness & Fletcher, 1993; Kar & O'Leary, 2013); suffering is less examined compared to hurt (Braithwaite et al., 2009; Lemay et al., 2012); shame is less examined compared to guilt (Baumeister et al., 1994; Overall et al., 2014); horror is less examined compared to fear (Harmon-Jones, Bastian, & Harmon-Jones, 2016; Hartley &

Phelps, 2010); and nervousness is less examined compared to anxiety (Lemay et al., 2015). Barely any work in emotion and relationship research studies the emotion of torment; thus, we excluded this emotion cluster from the list. For the emotion cluster of sympathy, previous relationship studies suggest that empathy and sympathy towards romantic partners predict greater relationship satisfaction (Cramer & Jowett, 2010; Kimmes, Bercik, Edwards, & Wetchler, 2014). Therefore, we excluded the emotion cluster of sympathy due to its positive valence and potential benign influence on relationship functioning. Finally, Shaver et al. (1987) categorized embarrassment within the cluster of neglect. However, emotion literature identifies embarrassment as a discrete emotion (Edelmann, 1987; Keltner & Anderson, 2000; Tangney, 1999). Therefore, we categorized neglect and embarrassment as two separate emotion clusters. As a result, after adapting from Shaver et al. (1984) and consulting with recent literature, we generated 12 discrete negative emotional clusters: anger, disgust, jealousy, hurt, sadness, disappointment, guilt, neglect, frustration, fear, anxiety, and annoyance.[1]

Frequently Experienced Negative Emotions in Daily Lives

Although there has been scant attention to the relative frequency of negative emotional experiences in close relationships, research on intra-individual emotional experiences provided insight into the most frequently experienced negative emotions in daily lives. However, the literature provides drastically inconsistent results.

One range of empirical work uses the self-report methodology on a limited set of negative emotions. Participants frequently mentioned happiness, followed by anger, sadness, and fear, when asked to name a most recent emotional experience in a telephone survey (Scherer & Tannenbaum, 1986). Similarly, a structured diary with employed adults

[1] Embarrassment was separated from the clusters of neglect after recruitment of the data. Therefore, the emotion list in Study 1 does not include embarrassment.

examining the experience of five basic emotions – happiness, sadness, anger, fear, and disgust – suggests that anger was the most frequent of the five emotions, followed by happiness, sadness, and disgust is the least frequently experienced emotion (Oatley & Duncan, 1994). In another study, when participants were asked to describe an emotion they experienced the previous day, for negative emotions, most participants described experiencing anger, anxiety, sadness, frustration/disappointment, stress, despair, and irritation (Scherer, Wranik, Sangsue, Tran, & Scherer, 2004).

Another range of empirical work on emotional experience in daily life uses the Experience Sampling Model (ESM) method, in which participants were asked to rate the extent to which they experience a range of emotions across multiple time points a day over a period of time. For example, with thrice-daily recordings of participants' emotions for a month, researchers found that anxiety and frustration were the most frequently reported negative emotions, followed by boredom, loneliness, sadness, anger, guilt, and fear, and disgust was the least frequently experienced negative emotions (Zelenski & Larsen, 2000). Using a more diverse sample (i.e., African American and European American participants, ages ranging from 18 to 94), researchers found that anxiety, irritation, and frustration were the most frequently experienced negative emotions, followed by boredom, sadness, disgust, anger, fear, guilt, embarrassment, and shame (Carstensen et al., 2000). More recent work using the ESM method sampling 92 undergraduate students' emotional experiences within three 4-hour intervals for ten days suggests that anxiety/fear were the most frequently experienced negative emotions, followed by anger, sadness, and loneliness, while disgust, guilt, and embarrassment/shame were the least frequently reported negative emotions (Heiy & Cheavens, 2014). Finally, using an experience sampling smartphone application, researchers concluded that anxiety was the most frequently reported emotion, followed by disgust and anger. Guilt, fear, offense, embarrassment, and contempt were the least frequent

negative emotions in daily life (Trampe, Quoidbach, & Taquet, 2015).

The previous empirical work on intra-individual emotional experiences demonstrates drastically inconsistent results. The inconsistency may arise because we did not know what participants encountered and in what situations participants experienced the negative emotions. To control for the situational factor of people's emotional experiences, in the current study, we focused on negative emotions explicitly experienced because of one's romantic partner and relationship.

The Role of Attachment and Relationship Satisfaction on Negative Emotional Experiences

Negative emotions experienced in daily life can drastically differ from those experienced in close relationships. One essential factor influencing emotional experiences in close relationships is attachment. A central tenet of attachment literature is that attachment figures can help regulate a person's physiological, psychological, and affective states (Bowlby, 1982; Mikulincer & Shaver, 2007; Sbarra & Hazan, 2008), serving as a secure base that buffers against negativities (e.g., threats) perceived from the environment (please see Selcuk, Zayas, & Hazan, 2010 for reviews). Specifically, holding hands with romantic partners attenuates the neutral activation of negative affectivities in response to electric shocks (Coan, Schaefer, & Davidson, 2006). In addition, in the face of stress from giving an extemporaneous speech, physical contact with romantic partners (e.g., hugging) leads to lower heart rate responses and cortisol levels (Ditzen, Neumann, Bodenmann, vonDawans, Turner, Ehlert, & Heinrichs, 2007), and reduced psychological responses for the stress (Ditzen, Schmidt, Strauss, Nater, Ehlert, & Heinrichs, 2008). Aside from physical contact, imagining the presence of an attachment figure can be enough to facilitate recovery from negative affective states (Selcuk, Zayas, Gunaydin, Hazan, & Kross, 2012).

Another essential factor influencing emotional experiences in close relationships is

relationship satisfaction. A key determinant of a satisfying relationship is the romantic partners' ability to regulate negative emotions (Bloch, Haase, & Levenson, 2014; Eisenberg, Hofer, & Vaughan, 2007; Levenson, Haase, Bloch, Holley, & Seider, 2014). Indeed, people in highly satisfying relationships experience and express less intense negative emotions in their relationships compared to dissatisfied couples (Bertoni & Bodenmann, 2010; Broderick & O'Leary, 1986; Gottman & Notarius, 2000; Gottman, Coan, Carrere, & Swanson, 1998). In addition, even when partners are navigating difficult aspects of relationships, satisfied individuals are more likely to generate positive attribution of partners' negative emotions and behaviors, and are motivated to maintain the quality of the relationships (Griffin & Buehler, 1993; Griffin & Ross, 1991; Murray, Bellavia, Rose, & Griffin, 2003; Murray, Holmes, & Collins, 2006; Zayas, Surenkok, & Pandey, 2017).

Overview of the Present Studies

The present research investigates the most frequently experienced negative emotions in close relationships. Based on the existing literature on intra-individual emotional experience, we adapted the free recall and self-report methodologies (Study 1), and daily-diary method (Study 2). In both studies, we asked participants to free recall and describe the negative emotions elicited explicitly by interactions with romantic partners or their behaviors using their own words. We coded and categorized participants' open-ended responses using the categorization rubric inspired by Shaver et al. and past literature. Worthy of note, in Study 1, we also provided participants with a scale consisting of the 12 emotional categories we derived from Shaver et al. and past literature to conduct quantitative analysis on the frequency of participants' negative emotional experiences.

In addition, previous literature using experience sampling models suggests that people tend to experience at least one emotion for 90% of the 24-hour assessments (Trampe et al., 2015), and tend to experience more positive emotions compared to negative emotions

(Cartensen et al., 2000; Diener, Kanazawa, Suh, & Oishi, 2015). However, the current studies only focused on negative emotions elicited within the context of romantic relationships, which could be a portion of people's general emotional experiences in everyday lives. Therefore, we believe a daily-diary design asking participants to report at least one negative emotion daily is sufficient to capture the phenomenon of interest (Study 2).

Finally, worthy of note, in the current work, we recruited participants in short-term dating relationships for an average of 19 months. We reasoned that although couples at the beginning phase of their relationships are more satisfied with their relationships (Charles & Carstensen, 2002), dating couples, compared to long-term married couples, engage in greater levels of adaptive processes with each other (e.g., learning and adapting to each other's differences; Gonzaga, Campos, & Bradbury, 2007), through which they may experience a more diverse range of negative emotions. One goal of the current work was to examine the diversity of negative emotional experience patterns in romantic relationships. We believe the sample of the current work would benefit our goal.

Study 1

Method

Participants

We recruited 105 university students from a northeast university in the United States (62.9% female; Mage = 20.64 years; 84.5% heterosexual, 4.9% homosexual, 8.7% bisexual, 2% prefer not to answer) who had been in an exclusive relationship for an average of 16.14 months. Participants were compensated with course credits for participating in the study. We excluded 2 participants who failed to complete over 80% of the study. The study protocol was approved by the Institutional Review Board (IRB) of a northeast university in the United States where the study was conducted.

Measures and Procedure

Free Recall of the Most Frequent Negative Emotions in Close Relationships. After obtaining consent, participants were asked to think about and write down three negative emotions that they most commonly experience in their relationships. Specifically, participants read the following instructions, "*We would like you to think about the interactions you have with your partner and to identify a/another/final negative emotion that you experience most frequently because of your partner's behaviors or interactions with your partner.*" Then participants were provided with a textbox and the instruction, "*In the textbox below, please type the negative emotion that you most frequently experience in your romantic relationship.*"

Frequency Rating for Negative Emotions in Close Relationships. Participants then were asked to rate the frequency of 12 negative emotions in their relationships, following the instructions, "*Below is a list of negative emotions that partners could experience in close relationships. For each emotion term listed below, estimate how frequently you experience the emotion because of your partner's behaviors or interactions with your partner."* Participants were asked to rate the frequency of experiencing the emotions of anger, disgust, jealousy, hurt, sadness, disappointment, guilt, neglect, frustration, fear, anxiety, and annoyance, using a scale ranging from 1 (*Never*) to 7 (*Frequently*).

Relationship Satisfaction and Attachment. Participants responded to a six-item scale by Campbell and colleagues (2010). Specifically, participants were asked to rate the extent to which they agreed with the statements: "*How satisfied are you in your relationship?*" "*How committed do you feel in your relationship?*" "*How close do you feel to your partner?*" "*How much love do you feel toward your partner?*" "*How much do you feel like your relationship will continue to develop positively?*" "*How much do you feel like your relationship is strong and secure?*" Participants answered these questions using a scale ranging from 1 (*not at all*) to 7 (*Extremely*). Participants also reported their attachment

orientations using the Experiences in Close Relationships Scale-Short Form (ECR-S; Brennan, Clark, & Shaver, 1998; Wei, Russell, Mallinckrodt, & Vogel, 2007). ECR-S comprises two 12-item subscales, one measuring attachment avoidance (e.g., "*I try to avoid getting too close to my partner*") and the other measuring attachment anxiety (e.g., "*I need a lot of reassurance that I am loved by my partner*"). The attachment avoidance subscale reflects an individual's discomfort with closeness, and the attachment anxiety subscale reflects an individual's concern about abandonment. The participants were asked to rate the items on a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*). Scores on each subscale were averaged to create attachment avoidance (α = .79) and anxiety scores (α = .74).

Results

Free Recall of the Most Frequent Negative Emotions in Close Relationships.

Participants reported three negative emotions that they experience most frequently in their relationships. Three participants reported five negative emotions. All responses were included, resulting in a total of 315 free recalled responses of the most frequently experienced negative emotions. To analyze participants' responses, we first did a preliminary coding by simply identifying all negative emotions. Specifically, an independent coder unaware of the study hypothesis did the following steps: 1) remove irrelevant responses (e.g., *N/A*), 2) exclude words and responses that were not emotions (e.g., *Inadequacy*), 3) exclude words and responses that were not explicitly negative (e.g., *Dependence*), 4) remove descriptive phrases (e.g., *during isolation*), 5) fixed all the typos (e.g., *Anciety* to *Anxiety*), and 6) convert all remaining responses to their noun forms to remove redundancy (please see Supplemental Materials Table S1for all the excluded responses). After the six steps, the coder compared their coding to the first author's (F.C.) coding, and all discrepancies were discussed and addressed. For the preliminary coding process, we adapted the list of 213 emotions developed by Shaver et. al (1987). Responses not included in the list were searched on Google Scholar

and ResearchGate to see if past empirical literature categorized the responses as emotions. If we did not find empirical literature for the responses, we consulted the Oxford English Dictionary (OED).

Overall, of the 315 total responses, 5.7% were irrelevant responses ($N = 18$), 10.5% were non-emotion responses ($N = 33$), and 2.2% were non-negative responses ($N = 7$). As a result, a total of 257 emotions were left. We then analyzed the frequency with which participants reported these emotions in their open-ended responses (Figure 1.1). Overall, participants reported 32 different negative emotions (please see supplemental materials). We found that participants reported frustration ($N = 43$), annoyance ($N = 34$), anger ($N = 32$), sadness ($N = 26$), jealousy ($N = 23$), disappointment ($N = 15$), and anxiety ($N = 11$) as some of the most frequently experienced negative emotions in their romantic relationships.

Figure 1.1

Word Cloud for Most Frequently Experienced Negative Emotions in Close Relationships as Revealed through Open-ended Prompts (Study 1)

Note. The font size of words reflects the frequency with which participants reported negative emotion in their open-ended responses (minimum frequency = 3). Larger font sizes reflect higher frequency. The graph is generated via the R package wordcloud2.

Categorization of Negative Emotions. So far, we have provided an overview of the negative emotions participants recalled that they experienced most frequently in their relationships. However, the analysis could be influenced by emotion synonymous. To ensure responses with similar meanings are not counted as two separate emotions, we categorize the 257 emotions based on a prototypical emotion catalog (Shaver et al., 1987) and past empirical literature. Specifically, participants' emotions were assigned to the 13 clusters as mentioned earlier (i.e., Anger, Disgust, Jealousy, Hurt, Sadness, Disappointment, Guilt, Neglect, Frustration, Fear, Anxiety, Annoyance, and Embarrassment). Emotions that cannot be assigned to any cluster were viewed as individual clusters. We identified three new clusters: Boredom, Confusion, and Doubt. Table 1.1 reports the categorization process.

Table 1.1

Categorization of Negative Emotions (Study 1)

Anger	Anger, Resentment
Disgust	Disgust
Jealousy	Envy, Jealousy
Hurt	Hurt
Sadness	Depression, Misery, Sadness
Disappointment	Disappointment, Displeasure
Guilt	Guilt, Shame
Neglect	Insecurity, Loneliness, Neglect
Frustration	Frustration
Fear	Fear, Shock
Anxiety	Anxiety, Apprehension, Distraughtness*, Stress*, Worry
Annoyance	Annoyance, Impatience*, Irritation
Embarrassment	Awkwardness*, Embarrassment
Boredom	Boredom*
Confusion	Confusion*
Doubt	Doubt*

Note. Categorization of emotions based on emotion prototype (Shaver et al., 1987). Clusters that are not included in the emotion prototype are italic and bold. Asterisks indicate emotions that are not mentioned in the pre-developed prototypical catalog.

Overall, of the 257 emotions participants reported they experience most commonly in their relationships, 16.7% were frustration-related emotions ($N = 43$), 16.3% were annoyance-related emotions ($N = 42$), 13.2% were anger-related emotions ($N = 34$), 10.9% were sadness-related emotions ($N = 28$), 9.3% were jealousy-related emotions ($N = 24$), 6.1% were disappointment-related emotions ($N = 16$), 6.2% were anxiety-related emotions ($N = 16$), 5.1% were neglect-related emotions ($N = 13$), 3.9% were fear-related emotions ($N = 10$), 2.3% were doubt-related emotions ($N = 6$), 1.9% were hurt-related, embarrassment-related, and guilt-related emotions ($Ns = 5$), 1.5% were boredom-related and confusion-related emotions ($Ns = 4$), and finally, disgust-related emotions only accounted for 0.4% of the overall emotions ($N = 1$).

Frequency Rating of Negative Emotions in Close Relationships. In addition to free recall, participants also rated the frequency of 12 emotional categories (i.e., anger, disgust, jealousy, hurt, sadness, disappointment, guilt, neglect, frustration, fear, anxiety, and annoyance). Table 1.2 reports descriptive statistics (*M, SD*) for all the negative emotions and Bonferroni-adjusted *p*-values for all pairwise comparisons using t-tests with pooled standard deviations.

The pattern of participants' self-report frequency ratings of negative emotions was similar to that observed via open-ended free recall. Specifically, participants rated annoyance, anxiety, frustration, disappointment, hurt, sadness, anger, and jealousy were rated as (comparably) the most frequently experienced negative emotions in their relationships. Importantly, we found that participants reported experiencing annoyance most frequently and experiencing disgust least frequently in their relationships.

Table 1.2

Study 1: Summary of the Frequency Ratings Results.

	Anger	**Disgust**	**Jealousy**	**Hurt**	**Sadness**	**Disappointment**	**Guilt**	**Neglect**	**Frustration**	**Fear**	**Anxiety**	**Annoyance**
				Descriptive Statistics								
M	2.83	1.56	2.91	2.68	2.81	2.72	2.2	2.1	2.83	2.19	3.09	3.84
SD	1.53	1.03	1.65	1.5	1.41	1.4	1.59	1.26	1.32	1.53	1.84	1.71
				Bonferroni adjusted *p*-values for pairwise comparisons								
Disgust	**<.001**	-	-	-	-	-	-	-	-	-	-	-
Jealousy	1.00	**<.001**	-	-	-	-	-	-	-	-	-	-
Hurt	1.00	**<.001**	1.00	-	-	-	-	-	-	-	-	-
Sadness	1.00	**<.001**	1.00	1.00	-	-	-	-	-	-	-	-
Disappointment	1.00	**<.001**	1.00	1.00	1.00	-	-	-	-	-	-	-
Guilt	.101	.083	**.028**	.562	.121	.367	-	-	-	-	-	-
Neglect	**.021**	.303	**.004**	.157	**.028**	.101	1.00	-	-	-	-	-
Frustration	1.00	**<.001**	1.00	1.00	1.00	1.00	0.101	**0.021**	-	-	-	-
Fear	.095	.095	.024	.517	.108	.334	1.00	1.00	0.095	-	-	-
Anxiety	1.00	**<.001**	1.00	1.00	1.00	1.00	**0.001**	**<.001**	1.00	**<.001**	-	-
Annoyance	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**	**<.001**	**0.013**	-

Attachment and Relationship Satisfaction on Frequency of Experiencing Negative Emotions. Finally, we used multivariate linear regression to examine how participants' relationship satisfaction and attachment styles influence the frequency of negative emotional experiences. We found that high attachment anxiety predicts a greater frequency of anger, jealousy, hurt, sadness, neglect, fear, and anxiety. High relationship satisfaction negatively predicts the frequency of experiencing disgust and sadness. Attachment avoidance does not predict the frequency of any negative emotions. Interestingly, we found that neither relationship satisfaction nor attachment styles significantly predict the emotion of disappointment, guilt, frustration, and annoyance (Table 1.3).

Table 1.3

Effects of Attachment and Relationship Satisfaction on Frequency of Experiencing Negative Emotions in Close Relationships (Study 1)

	Attachment-Anxiety				**Attachment-Avoidance**				**Relationship Satisfaction**			
	B	95% CI	*t*	*p*	*B*	95% CI	*t*	*p*	*B*	95% CI	*t*	*p*
Anger	.05	[0.00, 0.09]	2.039	.044	-.02	[-0.09, 0.05]	-.548	.585	-.05	[-0.38, 0.27]	-.308	.759
Disgust	-.01	[-0.03, 0.02]	-.457	.649	.03	[-0.01, 0.07]	1.523	.131	**-.23**	**[-0.43, -0.03]**	**-2.254**	**.026**
Jealousy	**.10**	**[0.05, 0.15]**	**4.255**	**<.001**	-.01	[-0.07, 0.06]	-.211	.833	.12	[-0.21, 0.44]	.708	.481
Hurt	**.09**	**[0.05, 0.13]**	**4.113**	**<.001**	.00	[-0.06, 0.06]	-.090	.928	-.09	[-0.39, 0.21]	-.611	.542
Sadness	**.08**	**[0.04, 0.12]**	**4.231**	**<.001**	-.02	[-0.08, 0.03]	-.766	.446	**-.28**	**[-0.56, -0.01]**	**-2.055**	**.043**
Disappointment	.04	[0.00, 0.08]	1.984	.050	.03	[-0.03, 0.08]	.870	.387	-.21	[-0.49, 0.07]	-1.471	.144
Guilt	.04	[-0.01, 0.08]	1.542	.126	.01	[-0.06, 0.07]	.168	.867	-.21	[-0.54, 0.13]	-1.236	.219
Neglect	**.08**	**[0.05, 0.11]**	**4.550**	**<.001**	-.02	[-0.07, 0.03]	-.851	.397	-.14	[-0.38, 0.11]	-1.088	.279
Frustration	.04	[0.00, 0.07]	1.876	.064	.03	[-0.03, 0.08]	.913	.364	-.22	[-0.49, 0.04]	-1.658	.100
Fear	**.08**	**[0.04, 0.13]**	**3.881**	**<.001**	.04	[-0.02, 0.10]	1.245	.216	-.03	[-0.33, 0.27]	-.199	.843
Anxiety	**.12**	**[0.07, 0.17]**	**4.853**	**<.001**	.02	[-0.05, 0.09]	.554	.581	-.09	[-0.45, 0.26]	-.532	.596
Annoyance	.05	[0.00, 0.10]	1.935	.056	.02	[-0.06, 0.09]	.427	.670	-.14	[-0.50, 0.22]	-.788	.433

In addition, we examined if gender moderates the predictability of relationship satisfaction and attachment styles on the frequency of experiencing the 12 negative emotions. We first looked at gender as an independent predictor of the frequency of experiencing negative emotions. We found no significant effect of gender in predicting the frequency of any negative emotions. We then added the interaction terms between gender and relationship satisfaction, gender and attachment anxiety, and gender and attachment avoidance in the multivariate linear regression. After including the interaction terms, we found a statistically significant main effect of gender in predicting disgust ($b = 3.51$, $p = .047$, 95% CI [.05, 6.97]) and anxiety ($b = -6.24$, $p = .044$, 95% CI [-12.30, -0.18]). Specifically, after including the interaction terms, women, compared to men, were more likely to experience disgust in greater frequency and experience anxiety less frequently. However, we found a significant interaction between gender and relationship satisfaction on the frequency of disgust ($b = -.430$, $p = .040$, 95% CI [-.84, -.02]) and anxiety ($b = .79$, $p = .030$, 95% CI [.08, 1.51]), in which the gender differences were negated by high relationship satisfaction.

Discussion

Study 1 serves as a first step in exploring the most frequent negative emotions in close relationships. Using diverse methodologies (qualitative free-recall, quantitative self-reports), we found that consistently, participants named annoyance, anxiety, frustration, disappointment, hurt, sadness, anger, and jealousy as some of the most frequent negative emotions. Although attachment styles and relationship satisfaction predict the frequency of various negative emotions, none significantly predict the emotion of disappointment, guilt, frustration, and annoyance.

Still, one limitation of Study 1 is that participants were asked to free recall only the three most frequently experienced negative emotions in their relationships and that the frequency rating only applied to 12 negative emotions. Although such methods help clarify

emotion categorization, the type and pattern of negative emotions people experience in day-to-day life may differ from the limited free recall. Therefore, in Study 2, we used a daily-diary approach to examine the most frequent negative emotions in close relationships.

Study 2

As a first step to examine what negative emotions dating individuals experience most frequently in romantic relationships, we utilized qualitative free-recall and quantitative self-report in which participants came up with the three most commonly experienced negative emotions in their relationships and rated the frequency of 12 negative emotional categories. We found that annoyance, anxiety, frustration, disappointment, hurt, sadness, anger, and jealousy are reported and rated as the most frequently experienced negative emotions in dating relationships.

However, the frequency pattern of the limited free recall and self-report may differ from the negative emotions people spontaneously experience daily. Therefore, in Study 2, we aimed to further examine what negative emotions dating participants frequently experience in their relationships using a daily-diary approach. Specifically, on each day of 14 days, we asked participants to think about and write down a negative thing their partner did in the past 24 hours and the corresponding negative emotions that arose from the partner's negative behavior. With this method, we can examine dating individuals' spontaneous negative emotional experiences in their romantic relationships in two weeks.

Method

The present study is part of a larger project investigating evaluations of romantic relationships. Here, we summarize information relevant to the current study.

Participants

We recruited 131 participants undergraduate students from a northeast university in the United States who were in an exclusive heterosexual romantic relationship (77.10%

female; Mage =21.21; 81.1% heterosexual, 15.4% homosexual, 1.4% bisexual, 1.4% pansexual, .7% prefer not to answer), who had been in an exclusive relationship for an average of 21.79 months. Participants who completed all parts of the project received $40 in compensation. Again, the study protocol was approved by the Institutional Review Board (IRB) of a northeast university in the United States where the study was conducted.

Materials and Procedure

Participants first completed an online survey in which they reported their attachment styles and relationship satisfaction using the same measurements as in Study 1. Participants then completed an online 14-day daily diary study. An e-mail containing the link to the daily diary survey was sent to participants at 7 pm every day of the study. Participants had until midnight to complete the survey for that day. On average, participants completed daily diaries for 13.44 days out of 14 days, with a response rate of 96.29%. In each daily diary survey, participants were first asked to write one negative thing their partner did within the last 24 hours. Then they were asked to write down the emotion that best described their feelings in response to their partner's negative behavior. In addition, participants reported their daily relationship satisfaction for that given day on a 7-point Likert scale (1 = not at all, 7 = extremely). Scores on each item were averaged to create the daily relationship quality score.

Results

Spontaneous Reports of the Most Frequent Negative Emotions in Daily Interactions. Spontaneous Reports of the Most Frequent Negative Emotions in Daily Interactions. Participants spontaneously reported a negative emotion arising from their partners' negative behaviors every day for two weeks. To examine the spontaneous reports of negative emotions, we first synthesized participants' responses across two weeks to generate an overview of the negative emotional patterns. We synthesized all responses in the analysis,

including 18 responses that describe more than 1 emotion, resulting in 1697 spontaneous emotional responses to partners' negative behaviors in daily lives. Then, an independent coder unaware of the study hypothesis followed the preliminary coding plan established in Study 1. To reiterate, we 1) removed irrelevant responses, 2) excluded words and responses that were not explicitly emotion-related, 3) excluded words and responses that were not explicitly negative, 4) removed descriptive phrases, 5) fixed typos, and 6) converted all responses to noun forms (please see Supplemental Materials Table S2a – c for the coding process). Again, after the six steps, the coder compared their coding to the first author's (F.C.) coding, and all discrepancies were discussed and addressed. Worthy of note, for responses that do not have a noun form (e.g., *Grossed, Miffed*), we converted them to emotions with the closest meaning (e.g., disgust, annoyance) based on the Oxford English Dictionary (OED). However, we excluded four responses – *Bummed* ($N = 1$), *Unloved* ($N = 2$), and *Vexed* ($N = 1$). Although these responses represent an emotion state, we could not convert these responses to an emotion that best represent these responses' meaning.

Overall, of the 1697 total responses, 7% were irrelevant responses ($N = 120$), 13.3% were non-emotional responses ($N = 226$), and 8.8% were non-negative responses ($N = 149$). As a result, a total of 1198 negative emotions were left. We then analyzed the frequency of participants' spontaneous reports of negative emotions in their daily lives (Figure 1.2). We found that participants reported annoyance ($N = 294$), sadness ($N = 222$), disappointment ($N = 99$), frustration ($N = 87$), loneliness ($N = 65$), neglect ($N = 64$), anger ($N = 47$), and irritation ($N = 44$) as some of the most frequently experienced negative emotions in daily interactions.

Figure 1.2

Word Cloud for Most Frequently Experienced Negative Emotions in Daily-Diary Revealed through Open-ended Prompts (Study 2)

Note. The font size of words reflects the frequency with which participants spontaneously mentioned feeling the emotion in their daily interactions with romantic partners (minimum frequency = 5). Larger font sizes reflect higher frequency. The graph is generated via the R package wordcloud2.

Categorization of Negative Emotions. The preliminary analysis provided an overview of the daily experiences of negative emotions in romantic relationships. Because we wanted first to show a raw synthesis of negative emotions that participants spontaneously reported in their daily lives, we did not code and categorize participants' responses. But again, emotion synonyms can easily influence the pattern observed. Therefore, as in Study 1, we categorized the emotions based on the prototypical emotion catalog. Participants' emotions were assigned to 12 established clusters (i.e., *Anger*, *Disgust*, *Jealousy*, *Hurt*, *Sadness*, *Disappointment*, *Guilt*, *Neglect*, *Frustration*, *Fear*, *Anxiety*, *Annoyance,* *Embarrassment*), and three new clusters discovered in Study 1 (i.e., *Boredom*, *Confusion*, *Doubt*). We identified two additional clusters in this study, *Exhaustion*, and *Indifference*. Table 1.4 reports the categorization process.

Table 1.4

Categorization of Negative Emotions (Study 2)

Anger	Anger, Fury, Resentment, Indignation*
Disgust	Disgust
Jealousy	Jealousy
Hurt	Hurt
Sadness	Dejection, Depression, Desperation, Hopelessness, Sadness, Unhappiness, Discouragement*
Disappointment	Disappointment
Guilt	Guilt, Regret, Shame
Neglect	Defeat, Insecurity, Loneliness, Neglect, Rejection
Frustration	Exasperation, Frustration
Fear	Fright, Shock, Scare*
Anxiety	Anxiety, Apprehension, Distress, Nervousness, Worry, Concern*, Stress*
Annoyance	Agitation, Annoyance, Grumpiness, Irritation, Impatience*
Boredom	Boredom*
Confusion	Confusion*
Exhaustion	Exhaustion*
Indifference	Apathy*, Indifference*
Embarrassment	Awkwardness*, Embarrassment, Humiliation
Offense	Offense*, Insult

Note. Categorization of emotions based on emotion prototype (Shaver et al., 1987). Clusters that are not included in the emotion prototype are italic and bold. Asterisks indicate emotions that are not mentioned in the prototypical catalog.

Of the 1198 daily negative emotions, 29.5% were annoyance-related emotions (N = 353), 19.4% were sadness-related emotions (N = 232), 11.4% were neglect-related emotions (N = 136), 8.3% were disappointment-related emotions (N = 99), 7.8% were frustration-related emotions (N = 94), 7.6% were anxiety-related emotions (N = 91), 4.3% were anger-related emotions (N = 51), 4.1% were indifference-related emotions (N = 49), 1.4% were guilt-related emotions (N = 17), 1.3% were hurt-related emotions (N = 16), 1.1% were boredom-related and confusion-related emotions (Ns = 13), and finally, disgust-related (N = 8), embarrassment-related (N = 7), offense-related (N = 6), fear-related (N = 6), exhaustion-related (N = 4), and jealousy-related emotions (N = 3) each account for less than 1% of the

total negative emotions. No participants reported doubt-related emotions in the daily-diary reports.

Taking Account of Individual Differences. So far, we synthesized participants' negative emotional experiences during the two weeks and generated an overview of the most common negative emotions in close relationships. However, the observed pattern could be influenced by individual differences. Some participants might experience one type of negative emotion (e.g., annoyance), thus frequently reporting the one negative emotion in the two weeks (e.g., being annoyed daily). Other participants might experience diverse negative emotions (e.g., annoyance on the first day, anger on the second day, and sadness on the third day). These individual differences could influence the overall pattern of the negative emotions commonly experienced in close relationships.

Therefore, in the next step, we focused on the 18 identified clusters of negative emotions (i.e., anger, disgust, jealousy, hurt, sadness, disappointment, guilt, neglect, frustration, fear, anxiety, annoyance, boredom, confusion, exhaustion, indifference, embarrassment, and offense) and examined how many participants reported experiencing these negative emotions. To do so, we generated a binary coding for whether participants reported experiencing the 18 clusters of negative emotions during the two weeks, with 1 indicating participants experienced the emotions at least once and 0 indicating participants never experienced the emotion during the two weeks. For example, if a participant reported experiencing anger at least once during the two weeks, we coded this participant's anger response as 1; if this participant never reported experiencing anger, then this participant's anger response was 0.

We found that out of 131 participants, 76.3% of participants spontaneously reported experiencing annoyance-related emotions at least once during the two weeks (N = 100), 67.2% of participants reported experiencing sadness-related emotions (N = 88), 48.9% of

participants reported experiencing neglect-related emotions (N = 64), 41.2% of participants reported experiencing frustration-related emotions (N = 54), 35.9% of participants reported experiencing disappointment-related emotions (N = 47), 35.1% of participants reported experiencing anxiety-related emotions (N = 46), 29.8% of participants reported experiencing anger-related emotions (N = 39), and 22.9% of participants reported experiencing indifference-related emotions (N = 30). Less than 10% of participants reported experiencing confusion (N = 13), guilt (N = 13), hurt (N = 12), boredom (N = 12), disgust (N = 8), fear (N = 6), embarrassment (N = 6), offense (N = 4), jealousy (N = 3), and exhaustion-related emotions (N = 3) at least once during the two-week period.

For those who reported experiencing the 18 clusters of negative emotions, we then examined how often during the two weeks, participants reported experiencing these negative emotions. To do so, we calculated the average percentages of the negative emotions participants reported experiencing during the two weeks. We found that annoyance-related emotions accounted for 26.8% of the overall responses during the two weeks, indicating that participants who reported experiencing annoyance-related emotions experienced the emotions for an average of 1.88 days per week. We found sadness-related emotions account for 19.8% of responses during two weeks (average of 1.39 days per week), neglect-related emotions account for 17.2% of responses during two weeks (average of 1.20 days per week), disappointment-related emotions account for 16% of responses during two weeks (average of 1.12 days per week), and anxiety-related emotions account for 15.3% of responses during two weeks (average of 1.07 days per week).

Overall, after taking account of the potential effect of individual differences in negative emotional experience, we found a broadly similar pattern that annoyance, sadness, neglect, disappointment, anxiety, frustration, and anger are some of the (relatively) frequently experienced negative emotions in day-to-day interactions with romantic partners.

Attachment and Relationship Satisfaction on Frequency of Experiencing Negative Emotions.

To assess how participants' attachment styles and relationship satisfaction affect negative emotional experiences, we first conducted logistic regressions with attachment avoidance, attachment anxiety, and relationship satisfaction as the predictor variable and the binary coding of whether participants reported experiencing the 14 negative emotions during the two weeks as the outcome variable. We found that attachment anxiety significantly predicts the occurrence of anger ($b = .355$, $p = .040$, 95% CI [0.02, 0.70]) and lower frequency of guilt during the two weeks ($b = -.755$, $p = .028$, 95% CI [-1.49, -0.14]). Attachment avoidance significantly predicts the occurrence of guilt ($b = .719$, $p = .045$, 95% CI [0.02, 1.45]). Relationship satisfaction did not significantly predict the occurrence of any negative emotions.

Then we examined how attachment anxiety, attachment avoidance, and relationship satisfaction predict the relative frequency of participants reported experiencing negative emotions. A multivariate linear regression revealed that attachment anxiety predicts greater frequency of anger ($b = 1.676$, $p = .002$, 95% CI [0.63, 2.72]) and sadness ($b = 2.666$, $p = .035$, 95% CI [0.20, 5.13]), and lower frequency of guilt ($b = -.514$, $p = .033$, 95% CI [-0.99, -0.04]). Attachment avoidance and relationship satisfaction did not significantly predict the frequency of any negative emotions.

Discussion

Overall, Study 2 revealed a similar frequency pattern of dating participants' negative emotional experiences using the daily-diary method. Specifically, participants spontaneously reported experiencing annoyance, sadness, neglect, disappointment, anxiety, frustration, and anger most frequently during the two weeks. We found that attachment anxiety positively predicts the frequency of anger and negatively predicts the frequency of guilt. Again, we found that neither attachment style nor relationship satisfaction significantly predicts

disappointment, guilt, frustration, and annoyance. However, we did observe one discrepancy between the frequency pattern of negative emotions observed in Study 1 and Study 2: the frequency of jealousy. In Study 1, participants free recalled and rated jealousy as one of the most experienced negative emotions. However, in daily assessment, very few participants reported experiencing jealousy. We will further discuss this discrepancy in the general discussion.

General Discussion

In romantic relationships, people inevitably experience negative emotions because of the other partner. Although negative emotional experiences profoundly impact relationship functioning, the field knows little about what negative emotions people frequently experience in their romantic relationships. Using free recall, self-report, and daily-diary methodologies, the current work provides a first examination of the diversity and relative frequency of dating individuals' negative emotional experiences in romantic relationships.

In Study 1, dating participants completed qualitative free-recall and quantitative self-reports for the most commonly experienced negative emotions in their relationships. Consistently, participants named and rated annoyance, anxiety, frustration, disappointment, hurt, sadness, anger, and jealousy as some of the most frequently experienced negative emotions. Although high attachment anxiety predicts a greater frequency of anger, jealousy, hurt, sadness, neglect, fear, and anxiety, and high relationship satisfaction negatively predicts the frequency of experiencing disgust and sadness, we found that none significantly predict the frequency of disappointment, guilt, frustration, and annoyance.

In Study 2, using a 14-day daily-diary method in which participants report a negative emotion in response to their partner's negative behavior each day, we found a broadly similar pattern that annoyance, sadness, neglect, disappointment, anxiety, frustration, and anger are the most spontaneously experienced negative emotions in daily lives. Attachment anxiety

positively predicts the frequency of anger and sadness, and negatively predicts the frequency of guilt. Neither attachment nor relationship satisfaction significantly predict the frequency of negative emotional experiences.

Understudied Negative Emotions in Romantic Relationships

As mentioned before, when examining negative emotions within the context of romantic relationships, prior work has primarily focused on anger (Gottman & Levenson, 1992; Karney & Bradbury, 1995; Overall et al., 2009), sadness (Clark & Brissette, 2003; Guerrero et al., 2008), jealousy (Fitness & Fletcher, 1993; Kar & O'Leary, 2013), hurt (Braithwaite et al., 2009; Leary & Springer, 2001; Lemay et al., 2012), guilt (Baumeister et al., 1994; Overall et al., 2014), and anxiety (Lemay et al., 2015). When studying the experiences of specific negative emotions in romantic relationships, past research tends to adopt a top-down approach in which experimenters induce the experience of the negative emotion of interest using memory recalls, hypothetical scenarios, in-lab discussions, or daily-diaries. However, such an approach overlooks the relative frequency of negative emotional experiences in romantic relationships.

The present work provided a first examine of the relative frequency of diverse negative emotions in romantic relationships. Indeed, consistent with past work, dating participants reported anger, sadness, hurt, and anxiety as negative emotions they frequently experience because of their romantic partners. To our surprise, annoyance, frustration, and disappointment are free-recalled, rated, and spontaneously reported as the most frequently experienced negative emotions (sometimes even more so than anger, one of the arguably most studied negative emotions in romantic relationships). However, they have received scant attention in relationship research.

One of our current projects in the lab provided the first empirical examination of perceiving disappointment in romantic relationships. We found that perceiving a partner's

disappointment leads to negative emotional responses. However, people generate benign construals of their partner's intentions, leading to relationship-promoting motivation. Although our work looked at the emotion of disappointment, to our knowledge, no work has looked at the role of annoyance and frustration within the context of romantic relationships. Future research is needed to examine when, why, and how people experience and perceive the emotions of annoyance and frustration in their romantic relationships.

Attachment and Relationship Satisfaction

In Study 1, we found that attachment anxiety positively predicts the self-reported frequency ratings of anger, jealousy, hurt, sadness, neglect, fear, and anxiety, and in Study 2, attachment anxiety positively predicts the spontaneous experience of anger and sadness. The general pattern we observed with attachment anxiety is consistent with past work suggesting that individuals high in attachment anxiety are more sensitive to potential threats in romantic relationships (Campbell, Simpson, Boldry, & Kashy, 2005), in which they tend to maximize the negativity of their feelings and experience more intense and pronounced negative emotions in response to partner's negative behaviors (Feeney, 2005; Simpson, Ickes, & Grich, 1999; Overall & Sibley, 2009). In addition, in Studies 1 and 2, we did not find attachment avoidance positively predicts the frequency of negative emotions (except for guilt in Study 2)[2]. This pattern is also consistent with past work suggesting that individuals high in attachment avoidance tend to minimize and overlook the negative emotional experiences in relationships (Mikulincer, 1998).

For the effect of relationship satisfaction on the frequency of diverse negative emotions, in Study 1, we found that relationship satisfaction negatively predicts the frequency of experiencing disgust and sadness in romantic relationships. In Study 2, we did

[2] Guilt as an emotion arises from perceived negative behavior of the self and motivates individuals to apologize and mitigate the negative influence (Baumeister, Stillwell, & Heatherton, 1994; Kugler & Jones, 1992). It is an emotional reaction not to partner's negative behavior, but to one's own negative behavior. Therefore, the pattern we observe in the relationship between attachment avoidance and the emotion of guilt still fits in past research.

not find relationship satisfaction significantly predicts spontaneous experience of any negative emotion. Prior work suggests that people in highly satisfying relationships tend to experience and express less intense and less negative emotions than people in dissatisfied relationships (Broderick & O'Leary, 1986; Gottman & Notarius, 2000). We were surprised that, at least in our sample of dating participants, we did not find much evidence that relationship satisfaction predicts a lower frequency of negative emotions. Why is it that in the current work, relationship satisfaction did not associate with a lower frequency of participants' negative emotional experiences? In the current studies, we recruited short-term dating participants who had been in an exclusive relationship for an average of 19 months. It is possible that people in the beginning phases of relationships tend to engage in more adaptive processes in which they adjust to each other's differences, through which they experience negative emotions because of the other partner, regardless of their relationship satisfaction. Future work is needed to test the viability of this prediction.

Interestingly, we found that consistently across two studies, neither attachment nor relationship satisfaction significantly predicts the emotion of annoyance, disappointment, and frustration, which are the most frequently experienced negative emotions reported by participants in our studies. This pattern may indicate the possibility that feelings of annoyance, disappointment, and frustration occur in romantic relationships, regardless of how attached and satisfied one is with their romantic partner. However, the field lacks an understanding of the function of annoyance, disappointment, and frustration; it is an assumption that needs to be examined in future studies.

Intensity vs. Frequency of Negative Emotions

Using qualitative free recall and quantitative self-report (Study 1) and daily-diary method (Study 2), both studies provide consistent results that annoyance, sadness, disappointment, anxiety, frustration, and anger are some of the most frequently experienced

negative emotions in romantic relationships. However, one discrepancy we observed between Study 1 and Study 2 was the emotion of jealousy. Why was jealousy recalled and rated as one of the most frequent negative emotions, but few participants in Study 2 spontaneously experienced jealousy within the two weeks? One possibility is that participants in Study 2 happened to not experience jealousy in the 2-week period in which we collected the data. Future studies with more extended period daily-diary design are required to test such assumptions.

But the more likely, second possibility is that because jealousy may be an intense emotional experience, especially in the context of romantic relationships, participants perceive to frequently experience jealousy even though the relative frequency of this emotion is low. Jealousy is an emotion that signals threats to the stability of romantic relationships wherein an alternative rival may lead to potentially negative outcomes (e.g., infidelity and abandonment; Buss & Haselton, 2005; Fitness & Fletcher, 1993; Pfeiffer & Wong, 1989; White, 1981). Therefore, the emotion of jealousy can be an intense experience that profoundly impacts relationship functioning (Harris & Christenfeld, 1996). Because such emotional experiences are intense, when asked to recall and rate frequently experienced negative emotions, participants might have been more likely to reflect on the intense negative experience of feeling jealous, even though they may not spontaneously experience jealousy frequently in their day-to-day lives. Moreover, it may also be possible that because the intense experience of jealousy relates to feelings of vulnerability (Scheinkman & Werneck, 2010; Senior, Helmer, & Chenhall, 2017), participants might have been unwilling to report experiencing such emotion in their daily-diary reports of negative emotions..

Because of the discrepancy we observed in the emotion of jealousy, one may wonder how frequency is associated with intensity in people's negative emotional experiences in romantic relationships. Past work suggests that differentiating the intensity and frequency of

emotion can provide a more precise understanding of people's emotional experience patterns (Eckland, Sperry, Castro, & Berenbaum, 2022; Schimmack & Diener, 1997). Intensity represents the severity of emotional experience (e.g., a little angry vs. very angry), whereas frequency refers to how often emotion is experienced regardless of intensity (Eckland et al., 2022). In the current work, we aimed to investigate what negative emotions people frequently experience in their relationships and how frequently they experience them. Therefore, we focused on the relative frequency of negative emotional experiences and did not include measures for intensity. Future work looking at negative emotional experiences in romantic relationships can benefit from examining both emotion frequency and intensity.

Future Directions

We acknowledged that there are limitations to the studies. First, as mentioned in the previous section, in the current work, we focused on the relative frequency of negative emotional experiences in romantic relationships. We did not include measures for the intensity of these emotional expressions. Multiple participants in the daily-diary study provided responses such as slightly angry, a little bit disappointed, or a bit annoyed. In the current study, we excluded these descriptive phrases from the coding process. However, emotion intensity and emotion frequency are inherently entangled concepts. Specifically, emotion intensity can moderate the mean level of a person's emotional experience (Eckland et al., 2021). Future work is needed to tackle the pattern of negative emotional experiences in romantic relationships by accounting for both emotion frequency and intensity.

Second, people's reports of negative emotional experiences may differ depending on the reference period. That is, how people recall and report their experience of emotions for the past hours, days, months, and years may be different (Kihlstrom, Eich, Sandbrand & Tobias, 1999). For instance, when people are asked to recall the frequency of experiencing anger in the short period (i.e., how often do you get angry during a typical week), compared

to the long period (i.e., how often do you get angry during a typical year), people infer the question targets anger experiences with less intensity and seriousness, and greater frequency (Winkielman, Knäuper & Schwarz, 1998). In the present research, Study 1 focuses on three negative emotions participants most frequently experience in general, whereas Study 2 focuses on negative emotions experienced the previous day. Future research can examine the impact of different reference periods on the relative frequency of negative emotional experiences in romantic relationships.

Finally, in Study 2, the daily-diary study design may only capture the lower limit frequency of the negative emotional experience. Because we asked participants to report one negative emotion that day, it is possible that the negative emotions participants commonly experience in their relationships just happened not to exist in the two weeks we ran the study. Therefore, future work may benefit from more extensive, longer-period daily-diary design.

Regarding the generalizability of the findings, the current research targets young adults in dating relationships. However, the pattern of negative emotional experiences in short-term dating relationships may be different from long-term marital relationships. Specifically, long-term marital relationships are characterized by high mutual commitment (Swensen & Trahaug, 1985), in which married individuals may adapt more to each other's negative behaviors and experience different types of negative emotions because of the partner's negative behaviors. Future research should examine what negative emotions married partners frequently experience in their relationships compared to those in dating relationships.

Concluding Remarks

Despite the extensive research on the function of diverse emotions on relationship functioning, the field knows little about what negative emotions people frequently experience in their romantic relationships. The current work serves as a first exploration of the relative

frequency of diverse negative emotional experiences. Using diverse methodologies (qualitative free recall, quantitative self-report, daily-diary), dating participants reported annoyance, sadness, disappointment, anxiety, frustration, and anger as the most frequently experienced negative emotions in their relationships. Although extensive work has examined the function of anger, sadness, jealousy, and anxiety in romantic relationships, scant attention has focused on the emotion of annoyance, disappointment, and frustration.

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CHAPTER 3

An Upside to Disappointment in Close Relationships: Evidence for a Motivational, Relationship-Promoting Role

People have expectations about their relationships—beliefs about how each individual in the relationship will behave, as well as expectations about the relationship more broadly (Lemay & Venaglia, 2016). Indeed, in an age-long tradition, couples about to embark in marriage explicitly express their expectations for one another, vowing their love, respect, commitment, honesty, and support "till death do us part." But couples also have much more mundane expectations for one another, such as how to handle household chores and financial responsibilities (Baucom, Epstein, Rankin, & Burnett, 1996). Importantly, despite well-meaning intentions, the sobering reality is that expectations cannot always be met. In day to day interactions, partners frequently fail to meet expectations (Lavner, Karney, & Bradbury, 2013; Simpson, Fletcher, & Campbell, 2001).

The most common emotional response to unmet expectations is disappointment (Bell, 1985; Frijda, 1986; Loomes & Sugden, 1986; Van Kleef & Van Lange, 2008; Weiner, Russell, & Lerman, 1979). Although disappointment has been studied in organizational settings as well as parent-child relationships (Krevans & Gibbs, 1996; Patrick & Gibbs, 2007; Van Kleef, De Dreu, & Manstead, 2006), surprisingly, it has received less attention in the context of romantic relationships. In the present work, we aimed to address this gap in the literature. Specifically, the current studies address the following questions: How does a person respond emotionally when their partner expresses disappointment in them? How does the person then construe the intentions underlying their partner's disappointment? And, finally, how does perceiving partner's disappointment affect downstream consequences, such as motivations to engage in relationship-promoting changes? Given that disappointment is a negative emotional expression (Bell, 1985), we reason that perceiving a partner's

disappointment elicits initial negative emotional responses (Bradbury & Karney, 1993). Nonetheless, instead of perceiving the partner as intending to be hurtful, we reason that one is likely to generate benign construals of partner's intentions, for example, viewing partner's disappointment as justified and serving a positive purpose. Consequently, we hypothesize that because people likely to construe partner's disappointment as reflecting benign intentions, perceiving partner's disappointment is expected to enhance relationship-promoting motivations—i.e., motivating individuals to engage in behaviors aimed at improving the relationship. In an exploratory phase, using a mixed methods approach combining qualitative and quantitative methods, we provide initial evidence affective, cognitive, and motivational consequences of perceiving disappointment in close relationships. Then, in a theory-confirmation phase, using different comparison conditions and methods for manipulating disappointment, we provide evidence for the causal role of perceiving disappointment in enhancing relationship-promoting motivations.

The Influence of Negative Emotions in Close Relationships

A central tenet of various theoretical perspectives is that emotions serve social functions, providing information that facilitates the coordination of behaviors and goals in dynamically changing social interactions (Frijda & Mesquita, 1994; Keltner & Haidt, 1999; Lazarus & Lazarus, 1991; Tooby & Cosmides, 1990). From this perspective, emotions have both *intra* and *inter*personal consequences. Intrapersonally, emotions give rise to subjective experience, physiology, and behaviors (Bell, 1985; Frijda, 1986). Interpersonally, the emotion experienced and expressed in one person affects the affective, cognitive, and behavioral responses of those who witness the emotion, whether as interaction partners or observers (Frijda, 1993; Izard, 1993; Izard, 2013).

Given the social-functional value of emotions, not surprisingly, there has been considerable interest in understanding how different emotional expressions affect close

romantic relationships (Berscheid & Ammazzalorso, 2001; Clark, Fitness, & Brissette, 2001; Clark & Taraban, 1991; Fehr, Baldwin, Collins, Patterson, & Benditt, 1999). Much of this past work has focused on the experience and expression of negative emotions, such as anger (Gottman & Levenson, 1992; Karney & Bradbury, 1995; Overall, Fletcher, Simpson, & Sibley, 2009), sadness (Clark & Brissette, 2003; Guerrero, La Valley, & Farinelli, 2008), and jealousy (Fitness & Fletcher, 1993; Kar & O'Leary, 2013). The focus on negative emotions reflects the influence of social learning theories (Jacobson & Margolin, 1979). Rewarding relationship exchanges are expected to lead to positive marital outcomes. For example, communicating understanding and acceptance predicts greater relationship satisfaction (Maisel, Gable, & Strachman, 2008). In contrast, negative exchanges are expected to undermine relationship functioning. For example, in classic studies of married couples, displays of negative emotions, such as anger and contempt, during conflict predict future relationship dissolution (Carrere & Gottman, 1999; Kiecolt-Glaser, Bane, Glaser & Malarkey, 2003). Similarly, negative communication, such as being demanding and defensive, has been shown to predict declines in relationship satisfaction (Noller, Feeney, Bonnell, & Callan, 1994). Thus, from this perspective, traditionally, negative emotions have been viewed as a marker of dysfunctional relationship patterns.

Still, there is a growing appreciation that negative emotions are not always deleterious to relationships. Indeed, recent work and theorizing provides a more nuanced view of the consequences of negative communication (Overall, Fletcher, Simpson, & Sibley, 2009; Overall & McNulty, 2017). From this perspective, although negative communication, such as directly expressing anger and irritation, can initially elicit negative reactions in partners and dampen relationship satisfaction, negative communication may be beneficial in the long term. A review of the literature suggests several routes by which negative emotions can strengthen relationships. First, expressing negative emotions communicates to one's partner an issue that

needs to be addressed, which can in turn lead to efforts to address the issue (Cohan & Bradbury, 1997; McNulty & Russell, 2010; Overall et. al, 2009), ultimately benefiting long-term relationship functioning (Gottman & Krokoff, 1989; Graham, Huang, Clark, & Helgeson, 2008; Karney & Bradbury, 1997). For instance, wives' expressions of anger and disagreement were found to boost constructive solutions to marital problems, which in turn benefited long-term relationship quality (Cohan & Bradbury, 1997; Gottman & Krokoff, 1989). Second, expressing negative emotions signals that one's partner is committed to the relationship, which improves the quality of the relationship over time (Heavey, Layne, & Christensen, 1993). For example, in a study of married, cohabitating, and dating couples who engaged in discussions about their relationship problems, negative-direct communication (e.g., anger) from a partner wanting changes in the other partner was perceived as reflecting greater partner commitment, and improved the quality of the relationship over time (Overall, 2018).

The Potential Role of Disappointment in Romantic Relationships

Emotions' impact on romantic relationships is a longstanding interest, but the specific emotion of disappointment remains understudied. Below, we first provide a brief summary distinguishing disappointment from other commonly studied negative emotions. Then, we describe research that informs our central proposition that disappointment may be particularly well-suited for eliciting motivating relationship-promoting behaviors.

According to various theories, discrete emotions arise from a person's appraisal of an event as positive or negative in relation to one's concerns or goals (Frijda, 1986). Although disappointment is a negative emotion, like anger, sadness, and jealousy, it is conceptually different from these other commonly studied negative emotions. Anger is a negative, but approach-oriented emotion that is elicited by a perceived wrong (Frijda, Kuipers, & Ter Schure, 1989) or when one's desired goal is hindered by outside circumstances (Panksepp,

1998). Behaviorally, experiencing anger can lead to active, sometimes even aggressive, behaviors to resolve the problem (Berkowitz & Harmon-Jones, 2004; Harmon-Jones & Allen, 1998; Roseman, Wiest, & Swartz, 1994; Williams, 2017). Sadness is a negative, but avoidance-oriented emotion that is elicited when one perceives a loss without the ability to change the situation (Frijda, 1987; Levine, 1996). Behaviorally, sadness leads to withdrawal behaviors such as avoidance and isolation (Guerrero et al., 2008; Lazarus, 1991). Finally, jealousy is a negative emotion that is elicited when one perceives a potential threat to a valued relationship (Clanton, 1981). Behaviorally, jealousy is associated with dominance and control (Dijkstra & Buunk, 1998), and at times partner aggression (O'Leary, Slep, & O'Leary, 2007). Although disappointment is also a negative emotion, in contrast to anger, sadness, and jealousy, disappointment is elicited when one perceives the absence of having attained desired outcomes or that progress toward the desired outcome is below expectations, rather than the presence of negative outcomes or that progress is hindered or threatened (Bell, 1985; Frijda, 1986; Van Dijk, Zeelenberg, & Van der Pligt, 1999). Experiencing disappointment signals that action is needed to continue to progress towards the desired outcome (Van Dijk & Van der Pligt, 1997), thus, behaviorally, it can motivate goal pursuit.

As previously stated, the role of anger, sadness, and jealousy on romantic relationship functioning has been well studied. But surprisingly, little attention has been given to how expressions of disappointment operate in romantic relationships. Given that disappointment is expressed when expectations are not met (Bell, 1985), it is likely to play an important role in romantic relationships. That is, close relationships involve a high degree of interdependence and mutual influence (Kelley & Thibaut, 1978; Rusbult & van Lange, 2003). Partners in committed relationships depend on each other, such that a partner's behaviors, including emotional expressions, decision making, and goal pursuits, are highly influenced by the other partner (Finkel & Simpson, 2015; Fitzsimons & Finkel, 2015; Reis & Rusbult, 2004; Sels,

Cabrieto, Butler, Reis, Ceulemans, & Kuppens, 2020; Thibaut & Kelley, 1986). Indeed, effective relationship functioning requires coordination of both partner's behaviors, which allows couples to pursue simple daily goals (e.g., selecting a restaurant for dinner; Moore, Fitzsimons, & Fitzsimons, 2020), as well as more significant life goals (e.g., living together; Finkel, Simpson, & Eastwick, 2017).

Given the high level of interdependence, partners establish expectations about how each other would or should behave in the relationship (Berscheid, 1983). Unfortunately, it is inevitable that one partner will at some point fail to meet the other partner's expectations, resulting in the other partner's disappointment. Indeed, recent work (Cui, Sakman, & Zayas, in prep) finds that disappointment is a commonly experienced emotion in romantic relationships. For example, in a daily diary study, over a third of participants spontaneously (via open-ended prompts) mentioned experiencing disappointment at least once in a two-week period. Similarly, in a self-report survey of commonly experienced emotions, participants reported experiencing disappointment as frequently as the emotions of anger, sadness, and jealousy, which are arguably the most often studied emotions in close relationships (Clark & Brissette, 2003; Fitness & Fletcher, 1993; Gottman & Levenson, 1992).

How does one react—emotionally, cognitively, and behaviorally—to a partner's expression of disappointment? Although research has examined the effect of interdependence (high vs. low) on relational outcomes, such as emotional connection (Sels et al., 2020), well-being (Wrzus, Wagner, & Neyer, 2012), and commitment (Sabatelli & Cecil-Pigo, 1985), less attention has been given to the emotional consequences of failing to meet expectations. Thus, to date, the field knows little about how such expressions of disappointment are perceived and interpreted, and ultimately, how they might affect relationship functioning.

Despite the lack of attention to the role of disappointment in romantic relationships,

two neighboring research areas provide circumstantial evidence for our primary hypothesis that perceiving that one's romantic partner is disappointed in their actions may have beneficial relationship-enhancing effects. First, research in organizational behavior finds that, in negotiation contexts, those who perceive that they have disappointed their interaction partners are more likely to engage in prosocial behaviors. For example, in a computer-mediated negotiation task, people who perceived disappointment (vs. guilt) in their partner were more likely to compromise or concede to resolve the disagreement (Van Kleef et al., 2006). Similarly, using a similar negotiation paradigm, people who perceived disappointment (vs. anger) in their partner showed a greater willingness to cooperate in the future (Lelieveld, Van Dijk, Van Beest, Steinel, & Van Kleef, 2011; Wubben, De Cremer, & Van Dijk, 2009). Furthermore, when receiving failure feedback, people who perceived a supervisor expressing disappointment (vs. anger) were more likely to engage in positive social behaviors (e.g., apologizing and accepting responsibility), less likely to engage in negative social behaviors (e.g., making excuses and shifting blame), and more likely to construe the feedback as helpful (Johnson & Connelly, 2014). Second, studies in developmental psychology on parent-child relationships also highlight the beneficial consequences of expressing disappointment. Correlational studies have shown that parents' self-reported frequency of expressing disappointment (vs. other parental discipline strategies, such as withdrawal of love) is related to children's greater prosocial behaviors, as assessed by parents' and teachers' reports (Krevans & Gibbs, 1996), and children's moral identity (Patrick & Gibbs, 2007). Thus, evidence from adjacent fields provides evidence that perceiving disappointment in another elicits prosocial behaviors, leading to beneficial effects in interpersonal interactions.

Why Might Disappointment Exert a Beneficial Influence on Relationships? From an emotion theoretical perspective, emotions exert their interpersonal effects in part through how perceivers make sense of the expresser's emotion (Van Kleef, 2009). That is, people

make sense of another person's negative emotion by inferring their intentions, including the cause, meaning, and implications of the emotional expression (Fincham & Bradbury, 1992).

Dovetailing with this perspective, theories in the relationship research have long emphasized the importance of benign construals of partner's intentions—also referred to as benign attributions (Fincham, Beach, & Baucom, 1987) or benign appraisals (Menzies-Toman & Lydon, 2005)—especially in how two partners navigate difficult aspects of relationships (Griffin & Buehler, 1993; Griffin & Ross, 1991; Murray, Holmes, & Collins, 2006; Rusbult & Verette, 1991; Zayas, Surenkok, & Pandey, 2017). For example, if Terry and Pat are married, and Terry expresses anger, Pat might construe Terry's intentions negatively, such as inferring that the anger expression reflects Terry's selfishness and desire to be hurtful. This, in turn, may lead Pat to feel that the anger is unjustified and may reciprocate in kind. Alternatively, Pat might construe Terry's intentions positively, such as inferring that the anger expression reflects that Terry is committed to the relationship. This, in turn, may motivate Terry to address the issues that led to Pat's anger. In support of these ideas, benign construals of an interaction partner's intentions are associated with positive responses toward the partner, both emotionally and behaviorally (Cislak & Wojciszke, 2008; Fiske, Cuddy, & Glick, 2007; Weiner, 1985). Moreover, in the context of close romantic relationships, benign construals of a partner's transgression (e.g., deception) are more likely to elicit empathy (Fincham, Paleari, & Regalia, 2002) and promote forgiveness (Fincham, 2000).

Building on this past literature, we reason that perceiving partner's disappointment may enhance one's motivation to engage in relationship-promoting behaviors, in part, because one is more likely to construe their partner's expression as reflecting benign intentions. The findings from the child-parent relationships literature provide circumstantial evidence. For example, children report more benign construals of their parents'

disappointment, perceiving it as more justified and fairer, as compared to other parental strategies (Patrick & Gibbs, 2012).

Overview of the Present Studies

The present research investigated the effect of perceiving disappointment in one's romantic partner. Specifically, we focused on whether perceiving partners' expressions of disappointment increases individuals' motivation to engage in relationship-promoting changes. Based on the existing literature, we predicted that perceiving partner's disappointment initially elicits negative emotional responses. Nonetheless, we proposed that perceiving partner's disappointment is likely to lead to benign construals of the partner's intentions. That is, instead of construing partner's disappointment as reflecting malintent, individuals are likely to perceive their partner's disappointment as being justified and serving a positive purpose. These benign construals, in turn, are expected to enhance motivation to engage in relationship-promoting changes.

Although neighboring areas provide circumstantial evidence for our primary hypothesis, the extant findings applicability to romantic relationships is limited in several ways. First, although studies on disappointment in negotiation settings provide causal evidence that perceiving disappointment increases prosocial motivations, the studies exclusively focused on interactions between strangers, not individuals in established relationships. Given that emotion is inherently dyadic (Frijda, 1993; Izard, 2013; Zayas, Shoda, & Ayduk, 2002), various aspects of emotion, including emotional experience, expression, recognition, and regulation, all crucially depend on the nature of the relationship (Van Kleef & Côté, 2018). People experience emotions most frequently and intensely in close relationships (Ekman & Davidson, 1994), react more strongly to significant others' emotional expressions (Clark, Pataki, & Carver, 1996), and are more willing to express emotions to significant others versus acquaintances or strangers (Clark & Taraban, 1991).

Therefore, findings examining experimentally-induced disappointment between strangers may have limited applicability for understanding the role of disappointment in romantic relationships. Indeed, in negotiations, perceiving a partner's disappointment is a signal that the partner was hoping for more, thus, indicating that one has been successful in bargaining (Thompson, Valley, & Kramer, 1995). In contrast, in close relationships, when one's goals are intricately intertwined with one's partner, perceiving a partner's disappointment is unlikely to be a signal of success. Rather, it may be a signal that one has failed to meet a relational expectation. Additionally, although developmental work has examined expressions of disappointment in parent-child relationships, these studies are correlational; the lack of experimental control precludes drawing causal conclusions about the function of disappointment. Moreover, although parent-child relationships are among the most intimate of human relationships, they qualitatively differ from romantic relationships (Hazan & Shaver, 1994; Weiss, 1982). Thus, findings examining responses to naturally-occurring disappointment expressions in parent-child relationships may too have limited applicability for understanding disappointment in romantic relationships.

In the current research, we chose to examine the effect of perceiving disappointment in participants who were married with an average marital length of 11.89 years. We reasoned that relationship status (married vs. dating) and relationship length (long-term vs. short-term) could serve as confound variables in interpreting how partners express and construe disappointment in romantic relationships. That is, past work has shown that couples at different phases of relationships tend to vary on relationship satisfaction (Charles & Carstensen, 2002); compared with long-term married couples, couples at the beginning phase of their relationships are more satisfied with their relationships and are less likely to engage in negative communications. As such, the intensity and frequency of disappointment expressions in dating (vs. long-term married) samples could be lower, potentially making it

easier for dating couples to generate benign construal and relationship-promoting motivation. Therefore, in the present work, we recruited married participants to ensure that the motivational effects of disappointment were not due to differences in relationship status or length.

To activate an instance of partner's disappointment, participants were asked to either recall a past event (Study 1-4) or imagine a future event (Study 5) in which their partner expressed disappointment in them. Study 1 was an exploratory, qualitative study where participants were asked to describe a time in which their partner expressed disappointment and then describe their emotions to and construals of the event, as well as any motivation to change. Study 2 was a descriptive, correlational study aiming to provide initial quantitative evidence of disappointment's relationship-enhancing consequences. Building on the results from these two exploratory studies, we aimed to provide causal evidence for key assumptions of our theoretical framework. Specifically, Study 3 compared a partner's expression of disappointment to an ordinary event, and Study 4 and Study 5 (both of which were preregistered) compared a partner's expression of disappointment to an anger expression. We report all studies, including manipulations, measures, sample size, and data. All studies are approved by Cornell IRB board.

Study 1

There has been remarkably little work on the role of disappointment in close relationships. Thus, as a first step, we used a bottom-up, phenomenological approach to assess how people perceive, react, and subsequently behave in response to a partner's expression of disappointment (Creswell & Poth, 2017; Giorgi, 2009; Moustakas, 1994; van Manen, 1990; Wertz, 2005). In contrast to a top-down approach wherein the researcher uses existing theory and research to specify all aspects of the research design, including what measures to administer, a bottom-up approach uses of qualitative methods to identify themes

important to a given individual. Critically, this provides an understanding of the role of disappointment from the perspective of the individual perceiving their partner's disappointment, rather than from the researcher's perspective.

Thus, our goal for Study 1 was to use a qualitative, bottom-up approach to establish a general description of the emotional, cognitive, and behavioral consequences of perceiving partner's disappointment by identifying important features in individuals' open-ended responses (Creswell & Poth, 2017). Accordingly, in Study 1, participants answered four open-ended prompts wherein they were asked to write about a time in which their partners had expressed disappointment in them, how they felt in response to this event, how they construed their partner's intentions, and finally, whether they changed their behavior afterwards. In this way, we used participants' experiences described in their own words—uncircumscribed by preexisting conceptions—to understand the emotional, cognitive, and behavioral consequences of perceiving their partner's disappointment.

Method

Participants

For bottom-up, phenomenological research, the recommended sample size needed to explore a phenomenon of interest ranges from 5 to 15 participants (Creswell & Poth, 2017). In the current study, we used Amazon's Mechanical Turk to recruit 30 participants (16 females; M_{age} = 42.1 years; 93.4% straight, 3.3% homosexual, 3.3% prefer not to answer), who had been married for an average of 11.07 years (range from 0.5 to 31). Participants completed a survey titled "*Disappointment Interactions in Romantic Relationships*" in exchange for modest payment. We did not exclude any participants.

Measures and Procedure

Overview. After obtaining consent, participants were instructed to recall and write about a past event in which their romantic partner was disappointed in something they did.

Then, participants were prompted to reflect on their emotional responses following the event, their construals of their partner's intentions, and whether they were motivated to change their own behaviors. Finally, participants completed measures to assess chronic relationship quality and demographic information.[3]

Partner's Disappointment Recall. Participants were asked to take at least 30 seconds to think about a specific event in which their romantic partners were disappointed in them. Specifically, participants read the following instructions, "*We would like you to think of a specific past event in which your romantic partner expressed disappointment in you. Try to select an event that you remember vividly. Once you've brought to mind this event, please press the continue button to proceed.*" Then, participants were instructed to write about the event. Specifically, they read the following instructions: "*In a few sentences, please describe the specific event. Why did your romantic partner express disappointment in you? What did your romantic partner say or do to indicate his/her disappointment?*"

Emotional Responses to Disappointment. Participants were asked to describe all the emotions they experienced at the time of the disappointment event and to explain why they experienced these emotions. Specifically, participants read the following instructions: "*In a few sentences, describe how you felt after your partner's expression of disappointment. Please write down all the emotions you experienced, and explain why you experienced these emotions.*"

Construal of Partner's Intentions. Participants responded to two open-ended questions to assess how they construed their partners' expression of disappointment: "*Do you think your partner's disappointment was justified? Why?*" and "*Do you think your partner's expression of disappointment served a purpose? If so, what purpose?*"

[3]In all studies, we assessed chronic relationship quality. We report the results involving individual differences in response to disappointment as a function of relationship quality elsewhere (Cui & Zayas, in prep).

Motivation for Change. Participants answered one question about their motivations to change their behavior: "*Were you motivated to change whatever you did that made your partner upset, after his/her expression of disappointment?*"

Coding of Open-Ended Responses. To obtain a better understanding of participants' experiences, we followed guidelines for identifying themes in qualitative responses (Creswell & Poth, 2017). Specifically, the first author conducted a preliminary review of participants' responses and identified coding themes (Crouch & McKenzie, 2006). Then, an independent coder, unaware of the study aims, coded participants' responses based on the identified coding themes. We describe the identified coding themes and the results of the independent coder's coding in the results section.

Results

Emotional Responses Elicited by Partner's Expressions of Disappointment

Emotional Responses to Disappointment. Participants described the emotions they experienced in response to their partners' expression of disappointment. To analyze participants' responses, an independent coder who was unaware of the study aims identified all emotion-related words (e.g., angry, sad, guilt) based on a list of 213 emotions (Shaver, Schwartz, Kirson, & O'Connor, 1987). Words that were not explicitly emotion-related (e.g., icky, salty) were excluded. We then analyzed the frequency with which participants reported emotion-related words in their open-ended responses (Figure 2.1).

Overall, participants reported experiencing various negative emotions in response to partners' disappointment: guilty (13.7%), upset (11.8%), ashamed (11.8%), angry (7.8%), disappointed (7.8%), sad (7.8%), embarrassed (7.8%), frustrated (5.9%), annoyed (3.9%), foolish (3.9%), defensive (3.9%), dejected (3.9%), worthless (3.9%), heartbroken (2%), lonely (2%), and isolated (2%). On average, each participant reported 1.5 negative emotion-

related words (Min = 0, Max = 6).[4] None of the participants reported experiencing positive emotions.

Overwhelming participants reported experiencing negative emotions in response to partners' disappointment. But emotion theories assume that emotions are directed toward a specific stimulus—person, event, or object (Ekman & Davidson, 1994). Indeed, a visual inspection revealed that the negative emotions reported by participants varied in the extent to which the emotion was directed at the self or their partner (Smith & Ellsworth, 1985; Manstead & Tetlock, 1989). Thus, we coded the emotion-related words into one of three dimensions: *negative self-directed emotions* reflect that the negative emotion is directed towards the self (i.e., ashamed, embarrassed, guilty, worthless, disappointed, foolish); *negative partner-directed emotions* reflect that the negative emotion is directed toward the partner (i.e., angry, annoyed, frustrated, defensive); and *dejected-related emotions* reflect dejected feelings without a clear target (i.e., sad, dejected, upset, heartbroken, lonely, isolated). We found that 33% of participants mentioned experiencing dejected-related emotions, 47% of participants mentioned experiencing negative self-directed emotions, and 23% of participants mentioned experiencing negative partner-directed emotions (Figure 2.1; Panel b).

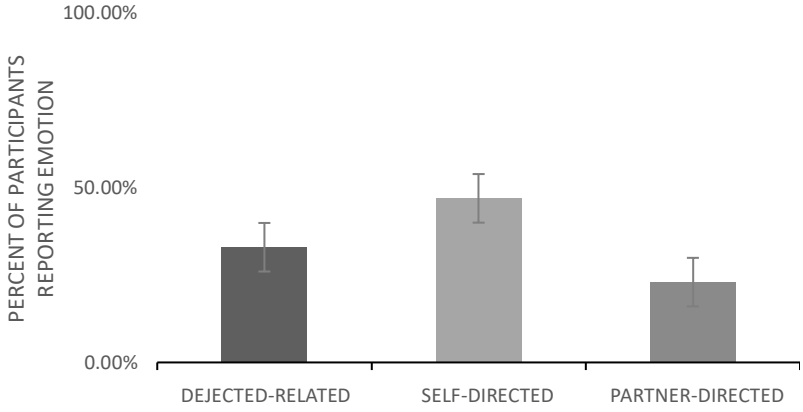
[4] All participants provided responses to the emotional response prompt. However, two participants' responses could not be categorized with our emotion coding scheme. Therefore, no emotion-related words were identified for these two participants.

Figure 2.1

Word Cloud and Bar Graph for Initial Emotional Responses to Partners' Disappointment as Revealed through an Open-ended Prompt (Study 1)

Panel a

Panel b



Note. The font size of words (Panel a) reflects the frequency with which participants spontaneously mentioned feeling the emotion in their open-ended responses. Larger font sizes reflect higher frequency. The graph is generated via the online Wordcloud generator at wordclouds.com. The bar graph (Panel b) represents the percentage of participants who spontaneously mentioned negative self-directed emotions, negative partner-directed emotions, and dejected-related emotions in their responses.

Construal of Partners' Intentions

Justified. To examine how participants construed their partners' expressions of disappointment, an independent coder first categorized participants' perceived justification of partners' expressions using a binary theme – justified vs. unjustified. The majority of participants (70%) reported perceiving their partners' disappointment as justified (vs. unjustified). For example, one participant wrote, "*She is justified in being disappointed because she is correct that she does most of the work around the house*."[5]

Purpose. To assess perceptions of their partner's purpose, the coder first categorized participants' responses using a binary theme – positive purpose vs. negative purpose. We found that 66.7% of participants reported that their partner's expression of disappointment served a positive purpose. An example of a positive purpose response is, "*She stopped me from being insensitive I guess. She cares about how I behave and she essentially helped me see why my behavior was wrong.*" An example of a negative purpose response is, "*To make me know how much she is disappointed in me, and make me feel worthless.*" A closer examination of the open-ended responses revealed four unique types of purposes. Two types had a positive connotation: "*to make me a better person,*" and "*to improve the relationship.*" Two types of purposes had a negative connotation: "*to hurt me,*" and "*there was no purpose.*" We categorized "*there was no purpose*" as negative because perceiving that one's partner expresses negative emotions for no apparent reason indicates that one thinks the partner has negative intentions.[6] In addition to the four types purposes, a few participants ($N = 4$) mentioned that their partner's expression of disappointment was to make themselves (i.e., the partner) feel better. This explanation is ambiguous with respect to whether it reflects positively or negatively on the partner; although it might reflect that participants viewed their

[5]The coder also examined the reasons why participants perceived their partners' disappointment as justified/unjustified. However, we could not detect a discernable pattern.

[6]Indeed, in Study 2, "*there was no purpose*" positively correlated with "*to be hurtful*" ($r = .394$), but negatively correlated with "*to make me a better person"* ($r = -.437$) and "*to improve the relationship*" ($r = -.454$).

partner behaving selfishly, it might also reflect that participants thought that their partner may have needed to resolve internal conflicts or issues. Given this ambiguity, we did not examine these construals further.

Motivation for Change

Finally, an independent coder examined participants' motivation to change whatever they did that made their partner upset using a binary theme – motivated vs. unmotivated. We found that 76.7% of participants expressed that they were motivated to change in response to their partners' expressed disappointment. For example, one participant wrote, "*I was motivated to make it right*" and "*I knew she was right so I knew it was time to make a change.*" This indicated that the majority of participants were motivated by their partners' expressions of disappointment to engage in desired change.

Discussion

Using a bottom-up, phenomenological approach, Study 1 serves as a first step in understanding how people respond to situations in which their partners express disappointment. Individuals reported negative emotional responses as a result of perceiving partners' expressions of disappointment. Importantly, however, the majority of participants generated positive construals of partners' expressions, perceiving that their partners' disappointment was justified and served a good purpose. Ultimately, the majority of participants expressed being motivated to change their behaviors, despite their initial negative reactions.

Given the relatively sparse work on the role of disappointment in close relationships, the present work provides initial support for the beneficial role of perceiving disappointment among romantic partners. Moreover, by using a bottom-up approach, a strength of the work is that it allowed participants to use their own words to report on their past experiences, compared to top-down approaches wherein participants' responses are constrained to the

questions and response options available. Thus, our approach identified themes that might have been overlooked if we had taken a top-down approach and selected measures *a priori*.

Still, one limitation of Study 1 is that our understanding of disappointment's role in close relationships is based on the experiences of 30 individuals. Although such a sample size may be fruitful for identifying important themes (e.g., types of emotions experienced, types of construals generated), the small sample size does not allow us to make generalizations to the larger population. Additionally, Study 1 did not allow us to use quantitative analytic techniques, which typically require larger sample sizes, to more formally examine the role of disappointment in close relationships. Thus, in Study 2, we aimed to develop quantitative methods informed by participants' responses in Study 1 to assess the role of disappointment in a larger sample of married participants.

Study 2

Study 1 utilized an open-ended, qualitative approach and provides initial evidence about the role of disappointment in established relationships. In Study 2, we aimed to build on these findings by examining the effects of perceiving partners' disappointment in romantic relationships in a more systematic, quantitative manner, using measures derived from Study 1, and with a larger sample size.

As in Study 1, we had participants recall a past event in which their partners had expressed disappointment in them. However, instead of answering open-ended questions, in Study 2, participants completed self-report measures to assess their immediate emotional responses. That is, in response to their partner's disappointment, participants were asked to report the extent to which they had they experienced negative self-directed emotions (e.g., guilty), negative partner-directed emotions (e.g., annoyed), and dejected-related emotions (e.g., sad). Additionally, we assessed participants' construal of their partner's intentions. Specifically, we asked participants whether their partner's expression was justified, served a

positive purpose, was meant to be hurtful, and served no purpose. Finally, we asked participants to indicate to what extent they had been motivated to change the behavior that led to their partner's original expression of disappointment.

Method

Participants

Participants ($N = 217$), all of whom reported being married, were recruited via Amazon Mechanical Turk to participate in a study titled "*Disappointment Expressions in Close Relationships."* We excluded no participants. On average, our sample of participants (144 females, 73 males; $M_{age} = 37.89$ years; 80% White, 7.8% Black, 7.8% Asian, 4.4% Other; 88% straight, 7% homosexual, 5% bisexual) had been married for 12.31 years.[7] The purpose of Study 2 was to provide descriptive evidence of the beneficial role of disappointment. Still, we planned to gauge how people, on average, experienced partners' expressions of disappointment. Because our Likert scales used to assess participants' responses used a meaningful midpoint, it was possible for us to estimate the means for our key dependent variables and compare each to the scales' midpoint. For example, participants indicated whether their partner's disappointment was justified using a 9-point Likert scale ranging from 1 (*extremely unjustified*) to *9* (*extremely justified*), with the mid-point 5 (*neither justified nor unjustified*). A mean value significantly above the midpoint would reflect that individuals, as a whole, perceived the partners' disappointment as justified. Accordingly, we conducted one-sample *t*-tests, comparing each mean to the midpoint, for all our key dependent variables. A power analysis for one-sample *t*-tests indicates that with the present sample size, we achieved 83% statistical power to detect a small effect size (Cohen's $d = .20$).

[7]Given that gender can affect the type and frequency of emotional expression and perception, we tested for whether participants' self-reported gender identity moderated any of our key hypotheses across Studies 2-5. We found no statistically significant evidence that gender moderated key results.

Measures and Procedure

Overview. After obtaining consent, similar to Study 1, participants were given 30 seconds to think and write about a specific event in which their romantic partner was disappointed in them. We then assessed, using Likert scales, participants' immediate emotional responses to their partners' disappointment,[8] their construals of their partner's intentions, and their motivation to change their behavior.

Emotional Responses. We assessed participants' immediate emotional responses to their partners' expressions of disappointment with the following prompt: "*How did you immediately feel in response to your partner's expression of disappointment?*" Participants were provided with a total of 22 emotion terms, 16 of which referred to the negative emotions identified in Study 1, and 6 of which were terms added to assess positive states as to not create a demand bias. Participants indicated the extent to which they experienced each emotion using a scale ranging from *1* (*not at all*) to *7* (*extremely*). Items were then grouped into four emotion dimensions: dejected-related emotions (sad, dejected, upset, heartbroken, lonely, isolated; α = .897); negative self-directed emotions (ashamed, embarrassed, guilty, worthless, disappointed, foolish; α = .913); negative partner-directed emotions (angry, annoyed, frustrated, defensive; α = .850); and general positive emotions (amused, happy, joyful, related, satisfied, love; α = .919).

Additionally, we conducted a confirmatory factor analysis to ensure that responses to the 22 emotion terms reflected four emotional dimensions. We adapted the maximum likelihood estimation (MLE) method, which is suitable given the confirmatory nature of our analysis (Jackson, Gillaspy, & Purc-Stephenson, 2009). Because we assumed that the emotional dimensions would not be completely independent from each other, we chose the

[8]We were also interested in exploring questions related to emotion regulation, such as whether people's immediate negative emotional responses elicited by disappointment improved over time. Because such questions focus on emotion regulation and not on the effects of perceiving disappointment on relationship-promoting motivations, which is the primary goal of the present work, we report the results in the Supplemental Materials. In general, participants reported improved emotional responses after construing partners' intentions, as compared to their immediate responses to disappointment (ps < .001).

oblique rotation that allows for correlations among factors. A scree plot indicated that our four factors each had an eigenvalue >1, and best captured the variance in emotional responses. Finally, a chi-square goodness-of-fit test was calculated and suggested a good model fit ($X^2(149) = 11.375$, $p > .11$).

Construal of Partner's Intentions. Following the emotion measures, participants completed questions to assess how they construed the intentions underlying their partners' disappointment. To assess perceptions of partners' disappointment as justified, they answered the question, "*To what extent do you think your partner's expression of disappointment was justified*" using a 9-point Likert scale ranging from *1* (*extremely unjustified*) to *9* (*extremely justified*), with 5 (*neither justified nor unjustified*) as the mid-point. Participants were then asked, "*To what extent do you think your partner's expression of disappointment served the following purpose…*" Participants were presented with four statements to assess the construed purposes, which were identified in the previous study: "*To improve you or make you a better person in some way.*"; *'To improve the quality of your romantic relationship.*"; "*To be hurtful.*"; and "*There was no purpose.*" Responses were made on a 9-point Likert scale from 1 (*strongly disagree*) to 9 (*strongly agree*), with 5 (*neither agree nor disagree*) as the mid-point.

Relationship-Promoting Motivation. Lastly, participants reported their motivations to change their behavior in a manner that would ameliorate the original reason for the partner's disappointment. Specifically, participants were asked the following questions, "*Did your partner's expression of disappointment affect your motivation to change whatever you did that made your partner upset?*" and "*Did your partner's expression of disappointment lead to actual changes in your behavior?*" Again, participants indicated their responses using 9-point Likert scales from 1 (*strongly disagree*) to 9 (*strongly agree*), with 5 (*neither agree nor disagree*) as the mid-point.

Results

Responses to Recalling Disappointment

Immediate Emotional Responses Elicited by Partners' Expressions. Immediately after perceiving their partners' disappointment, participants indicated experiencing negative emotions. Indeed, the pattern of emotional responses in Study 2 as assessed with Likert scales were highly similar to the pattern of emotional responses reported by participants in Study 1 using open-ended prompts. Specifically, compared to general positive emotions (M = 1.97, SD = 1.11), participants reported significantly higher levels of dejected-related emotions (M = 4.49, SD = 1.42; $p < .001$, d = 1.27), negative self-directed emotions (M = 4.31, SD = 1.60; $p < .001$, d = 1.12), and negative partner-directed emotions (M = 4.36, SD = 1.44; $p < .001$, d = 1.26). Except for participants reporting greater levels of dejected-related emotions compared to negative self-directed emotions ($p = .026$, d = .15), there were no statistically significant differences among the negative emotions experienced following disappointment (ps > .187). Overall, these results highlight that participants' immediate responses toward partners' disappointment were negative.

Construal of Partners' Intentions. We examined how participants construed their partner's expression of disappointment in two ways. First, because construals were assessed using Likert scales that had a meaningful and clearly defined midpoint, we used one-sample t-tests to compare the average response to the midpoint. Second, for descriptive purposes, we report the percentage of individuals in the sample who reported benign construals (by indicating a response above the midpoint in the positive direction).

On a 9-point scale of whether the partner's expression of disappointment was justified or unjustified, with 5 reflecting *Neither unjustified nor justified*, participants on average perceived their partners' expressions of disappointment as justified (M = 5.53, SD = 2.34), which was statistically significantly higher than the mid-point; $t(216) = 3.308$, $p = .001$, d =

.23). Indeed, the majority of participants (61.3%) perceived their partners' expressions of disappointment as at least slightly justified (i.e., scoring > 5). Likewise, participants did not view partners' expressions of disappointment as reflecting malevolent intentions (i.e., to be hurtful; $M = 3.83$, $SD = 2.54$), which was significantly lower than the mid-point (i.e., 5 (*Neither disagree nor agree*); $t(216) = 6.791$, $p < .001$, $d = .46$). Descriptively, the majority of participants (60.3%) disagreed with the notion that their partners' disappointment was intended to be hurtful (i.e., scoring < 5). Participants also did not perceive that their partners' disappointment served no purpose ($M = 3.83$, $SD = 2.56$), which was significantly lower than the mid-point ($t(216) = 6.728$, $p < .001$, $d = .46$). Again, the majority of participants (56.9%) disagreed with the notion that their partners' disappointment served no purpose (i.e., scoring < 5). Lastly, although participants perceived partners' disappointment as having positive purposes, on average, the means were not significantly different than the midpoint (to improve the relationship: $M = 5.22$, $SD = 2.72$; $t(216) = 1.171$, $p = .243$, $d = .08$; to make them better people: $M = 5.15$, $SD = 2.52$; $t(216) = .888$, $p = .376$, $d = .06$). Still, 52% of participants agreed with the notion that partners' disappointment served to improve the relationship, and 53% of participants agreed with the notion that partners' disappointment served to make them better people.

Relationship-Promoting Changes. Similar to our previous analyses, we examined relationship-promoting changes in response to partner's expression of disappointment in two ways. First, we used one-sample *t*-tests to compare the average response to the midpoint of 5, reflecting *Neither motivated nor unmotivated.* Second, for descriptive purposes, we report the percentage of individuals in the sample who reported motivation to change.

On average, participants reported being motivated to change the behaviors that had triggered their partner's disappointment ($M = 5.98$, $SD = 2.41$), which was significantly higher than the mid-point (i.e., 5 (*Neither disagree nor agree*); $t(216) = 5.992$, $p < .001$. $d =$

.41). The majority of participants (65.9%) reported higher motivation to change after perceiving their partners' disappointment (i.e., scoring > 5). Similarly, participants reported that they implemented actual changes in real life following partners' expressions of disappointment ($M = 6.10$, $SD = 2.45$), which was significantly greater than the mid-point ($t(216) = 6.598$, $p < .001$, $d = .45$). The majority of participants (71.6%) reported actual behavioral changes in real life after perceiving partners' disappointment (i.e., scoring > 5).

Discussion

Study 2 provides initial quantitative support for the beneficial effects of perceiving partner's disappointment. After recalling an instance of a partner's disappointment, participants reported initially experiencing negative emotions. But, importantly, participants generated benign construals of their partner's intentions, and reported motivation to engage in desired changes and having implemented actual behavioral changes in real life. Overall, the results of Study 2 converge with the qualitative findings of Study 1 in highlighting that perceiving partner's disappointment may have beneficial effects. Still, because Study 1 was qualitative, and Study 2 was correlational, we are not able to make a causal inference about the role of perceiving partner's expressions of disappointment on relationship-promoting motivation. Thus, in Study 3, we aimed to provide causal evidence to the observed effects of perceiving partners' disappointment.

Study 3

So far, Studies 1 and 2 provide initial evidence that although partners' expressions of disappointment initially elicit negative emotional responses, perceiving partners' disappointment is associated with benign construals of partners' intentions and enhanced motivation to engage in relationship-promoting changes. Still, the beneficial effects of perceiving partners' disappointment observed in Studies 1 and 2 might have arisen from generally reflecting on one's partner or one's relationship, rather than emerging specifically

in response to perceiving partner's disappointment. Given work on how easily individuals maintain positive illusions about their partners, our results reflecting the motivational influence of partner's disappointment could be viewed in a different light. Perhaps simply reflecting on one's partner and relationship generally, irrespective of whether the partner expressed disappointment, may elicit positive evaluations of the partner and of the relationship (Zayas & Shoda, 2005); in this case, simply having brought one's partner to mind may have been sufficient to increase motivations to maintain and strengthen the relationship (Mikulincer & Shaver, 2007; Murray, Holmes, & Collins, 2006; Selcuk, Zayas, & Hazan, 2010). Thus, the primary aim of Study 3 was to examine the viability of this alternative explanation.

Accordingly, in Study 3, participants were randomly assigned to reflect on a past event in which their partners expressed disappointment, similar to Studies 1 and 2, or to reflect on a past event in which they had an ordinary interaction with their partners. After the recall, participants reported on the emotions they experienced, similar to Study 2. Additionally, we introduced a novel measure wherein we asked participants to report on their evaluations of their relationships immediately following the event with their partner. Lastly, participants reported on how they construed their partners' behaviors and their motivations to improve the relationship. Although ordinary events with one's romantic partner are likely positive (Sbarra & Hazan, 2008; Selcuk, et al., 2010), recalling an ordinary event is a useful benchmark for how people typically think and feel about their partners in their day-to-day lives. We hypothesized that compared to an ordinary event, perceiving partners' disappointment would elicit immediate negative emotional responses as well as more negative immediate momentary evaluations of relationship quality. But critically, we hypothesized that compared to recalling an ordinary event, recalling perceiving partners' disappointment would lead to equally or even more enhanced benign construals of partner's

intentions and greater relationship-promoting motivation.

Method

Participants

Three hundred and eighty-four participants who were married for an average of 16 years (241 females; M_{age} = 43.54 years; 89% straight, 6% homosexual, 4% bisexual, 1% prefer not to answer) were recruited via Amazon's Mechanical Turk. We excluded three participants for failing to complete at least 80% of the survey.

We established our desired sample size prior to data collection. For our hypothesis comparing between partners' expressions of disappointment and an ordinary event on participants' emotional responses, relationship evaluation, construals of partner's intentions, and relationship-promoting motivations, we planned to run independent samples *t*-tests. With a sample size of 380, we achieve 83% statistical power to detect a small-to-medium effect size (Cohen's d = .30).

Measures and Procedure

Overview. Participants were assigned to the one of two conditions (disappointment vs. ordinary event), after which all participants completed self-report measures to assess their immediate emotional responses, momentary relationship evaluations, construals of partner's intentions, and relationship-promoting motivations. Importantly, different from the methods of Study 2, in Study 3, participants reported on their momentary relationship quality, construals of partner's intentions, and relationship-promoting motivations using a slider scale ranging from -10 to 10, with 0 serving as the midpoint. In this way, the midpoint of zero represents "no change" in participants' perceived relationship quality, construals of partner's intentions, and relationship-promoting motivations as compared to their chronic states. At the end of the study, participants completed the same demographic survey as in Studies 1 and 2.

Manipulation. For the between-subjects manipulation of partner's emotional

expression, participants in the disappointment condition received similar instructions as in Studies 1 and 2: "*We would like you to think of a specific past event in which your romantic partner expressed disappointment in you. Try to recall an event that you remember vividly. Fully imagine your interaction with your partner – what did your partner say and do? How did you feel in response?*" Participants in the ordinary event condition received the following instructions: "*We would like you to think of a specific past event in which you and your partner engage in an ordinary interaction. Try to recall an event that you remember vividly. Fully imagine your interaction with your partner – what did your partner say and do? How did you feel in response?*" Participants in both conditions were given 30 seconds to bring to mind the specific event.[9]

Immediate Responses Elicited by Partners' Expressions. To assess participants' immediate emotional responses, they completed the same measures as administered in Study 2 (αs > .856) using the same 1 *(not at all*) to 7 (*extremely*) scale.

Then, to assess how disappointment affects immediate evaluations of momentary relationship quality, participants answered four questions measuring the change in momentary relationship quality: "*In response to this interaction with my partner, I IMMEDIATELY felt that my relationship was…/my feelings about my partner IMMEDIATELY became…/ I IMMEDIATELY felt my commitment to the relationship…/ I IMMEDIATELY felt my commitment to my partner…*" Responses were made using a slider scale ranging from -10 (*less satisfying/decreased*) to 10 (*more satisfying/increased*), with 0 (*remain the same*) as the midpoint. We computed an aggregate of the four questions as an indication of participants' immediate relationship quality (α = .941).

[9] Following Study 3, we ran an additional study in which we asked participants to imagine a hypothetical disappointment or ordinary event. Although we had intended the ordinary event ("*My partner says he/she wants to watch television with me*") to reflect a mundane neutral event, unexpectedly, it elicited strong positive immediate emotional responses and enhanced immediate momentary relationship quality, as compared to participants' chronic feelings. Given that the ordinary event did not capture how participants typically feel in a typical interaction with their partner, but instead reflects positive emotional and relationship responses following a positive interaction, this study is not discussed further.

Construal of Partners' Intentions. To measure participants' construals of partner's intentions, they completed the same questions as in Study 2. That is, we asked participants the extent to which they viewed their partner's expression was justified, served a positive purpose, was meant to be hurtful, and served no purpose. The only modification was that this time, they reported their answers on a slider scale ranging from -10 (*Not at all*) to 10 (*Completely*), with 0 (*In the middle*) as the midpoint.

Relationship-Promoting Changes. Participants reported their motivations to make desired changes and actual behavioral changes by answering the questions, "*My partner's expression in this interaction affected my motivation to change…*" and "*My partner's expression in this interaction led to actual changes in my behaviors…"* using a slider scale ranging from -10 (*in ways that harm the relationship*) to 10 (*in ways that improve the relationship*), with 0 (*no change*) as the midpoint.

Data Analytic Strategy

For all key independent variables, we conducted independent samples *t*-tests comparing disappointment to the ordinary event condition.

Results

Table 2.1 reports descriptive statistics (*M, SD*) for all key dependent variables and the results (*B*, 95% CI, *d*, *p*) for our primary hypotheses comparing the disappointment condition to the ordinary event condition. Zero order correlations among variables for each condition are reported in the Supplemental Materials.

Table 2.1

Study 3: Summary of the Effects of Recalling Partner's Disappointment (vs. Ordinary Event) on Key Dependent Variables.

	Disappointment		**Ordinary Event**		**Difference (Disappointment - Ordinary Event)**			
	M	*SD*	*M*	*SD*	*B*	95% CI	Cohen's *d*	*p*
	Immediate Responses Elicited by Partners' Expressions							
General Positive Emotion	1.84	1.19	2.58	1.61	-0.75	[-1.03, -0.46]	0.52	<.001
Dejected Related Emotion	4.01	1.76	2.97	1.85	1.03	[0.67, 1.40]	0.58	<.001
Negative Self-Directed Emotion	3.81	1.75	2.39	1.48	1.42	[1.09, 1.75]	0.88	<.001
Negative Partner-Directed Emotion	4.17	1.71	3.14	1.75	1.03	[0.67, 1.40]	0.59	<.001
Relationship Quality Change	-1.42	4.38	0.12	4.04	-1.54	[-2.41, -0.67]	0.37	0.001
	Construal of Partners' Intentions							
Positive Purpose	-0.25	5.59	-1.80	6.25	1.55	[0.35, 2.74]	0.26	0.011
No Purpose	-1.97	6.84	1.11	6.54	-3.07	[-4.42, -1.73]	0.46	<.001
Justified	-0.17	6.74	0.89	5.43	-1.06	[-2.30, 0.17]	0.17	0.091
Negative Purpose	-2.66	6.49	-5.46	5.04	2.80	[1.63, 3.97]	0.48	<.001
	Relationship-Promoting Changes							
Motivation	2.64	4.44	1.55	3.86	1.09	[0.25, 1.93]	0.26	0.011
Actual Change	2.39	4.42	1.38	3.63	1.01	[0.19, 1.83]	0.25	0.016

Note. Immediate emotional responses were measured using a Likert-scale ranging from 1 (*Not at all*) to 7 (*Extremely*). Relationship quality change, construal, and relationship-promoting changes were measured using a slider scale ranging from -10 to 10.

Responses to Recalling Disappointment (As Compared to an Ordinary Event)

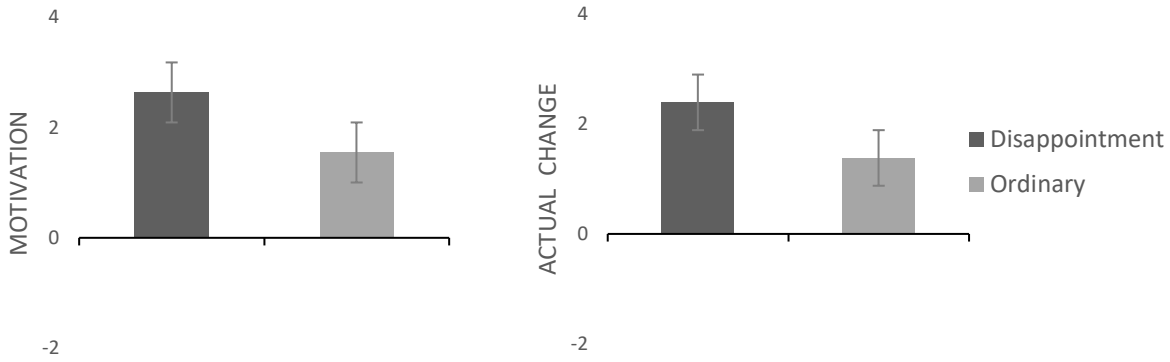
Immediate Responses Elicited by Partners' Expressions. As expected, participants' immediate responses to their partners' expressions of disappointment were negative—both in terms of their emotional responses as well as their momentary evaluations of their relationship. Specifically, compared to recalling an ordinary event, participants in the disappointment condition reported immediately experiencing higher levels of dejected-related emotions, negative self-directed emotions, and negative partner-directed emotions, and lower levels of positive emotions. Additionally, compared to recalling an ordinary event, participants in the disappointment condition reported immediately experiencing lower levels of momentary relationship quality.

Construal of Partners' Intentions. Next, we examined how participants construed their partners' disappointment as compared to their construals of their partners in an ordinary interaction. Specifically, compared to the ordinary event, participants were more likely to construe partners' disappointment as serving a positive purpose and less likely to construe partners' disappointment as serving no purpose. But there was no statistically distinguishable difference between disappointment and the ordinary event condition in perceived justification. Finally, participants construed partners' disappointment expressions as more hurtful as compared to the ordinary event condition. We discuss these findings in greater depth in the discussion section.

Relationship-Promoting Changes. Critically, as shown in Figure 2.2, compared to recalling an ordinary event, participants who recalled partners' disappointment reported experiencing increased motivation to engage in relationship-promoting changes and actual behavioral changes in real life.

Figure 2.2

Relationship-Promoting Motivation and Actual Change between Disappointment and Ordinary Event Conditions (Study 3)



Note. Bars represent participants' motivation for relationship-promoting changes (left panel) and reported behavioral change (right panel) between disappointment and ordinary event condition. Zero on the y-axis reflects that participants reported experiencing no changes in motivation or behaviors; positive numbers reflect increased motivation or behaviors for relationship-promoting changes; negative numbers reflect relationship-destructive changes. Error bars represent 1 *SE* above and below the mean.

Discussion

Study 3 provides evidence attesting to the motivational influence of perceiving partners' expressions of disappointment in close relationships. Compared to an ordinary interaction, perceiving disappointment from one's partner led to more negative immediate emotional response and decreases in momentary relationship quality. Importantly, perceiving partners' disappointment (vs. an ordinary event) led to construing the partners' expression as serving a positive purpose and less likely as serving no purpose, and ultimately led to enhanced motivation to engage in relationship-promoting changes.

A strength of Study 3 was the use of an experimental design from which to assess the effects of partners' disappointment. By comparing partners' expressions of disappointment to an ordinary event, we showed that the motivational influence of perceiving disappointment

was not due to the general reflective processes wherein simply reflecting on one's partner and relationship may elicit positive relational consequences. Instead, we showed that recalling partner's disappointment, although immediately eliciting negative emotional responses, led to perceiving partner's disappointment as intending to improve the relationship and themselves, and enhancing one's motivation to engage in relationship-promoting changes.

Although Study 3 provides further evidence of the beneficial effects of disappointment, there are a few remaining issues. First, we did not find evidence that disappointment led to perceiving partners as more justified or as having less hurtful intentions. We believe that this pattern could be due to the nature of the ordinary event recall used in Study 3. That is, perceiving partners' disappointment is an incident that elicits strong negative responses at least immediately. Indeed, in the present study, recalling an ordinary event led to more positive and less negative emotions than recalling disappointment. Because disappointment and ordinary events differ in their negativity, it is understandable that participants perceived partners' expressions of disappointment as more hurtful. Additionally, it is possible that recalling a specific instance of partners' disappointment, as compared to recalling a more general ordinary event with one's partner, is more conducive to making judgments of whether the expression is justified. Moreover, an instance of a partner expressing disappointment may differ from an ordinary event with one's partner in several ways. Expressions of disappointment are likely to be higher in arousal, eliciting more intense emotional and cognitive responses, as compared to an ordinary interaction that may be characterized by lower arousal, reflecting a baseline of how people generally feel in their relationships. Additionally, a partner's expression of disappointment may be more consequential to the relationship, than ordinary events, eliciting more intense motivational and behavioral responses. In short, the disappointment and the ordinary event conditions may have differed in more ways than just the manipulation of partner's disappointment, and these

differences, rather than partner's disappointment, may have led to the observed results. To address these concerns, in Study 4, we compared partner's expression of disappointment to another negative emotional expression, namely anger.

Study 4

Study 3 provides the first experimental examination of the affective, cognitive, and motivational consequences of perceiving disappointment in close relationships. Specifically, compared to an ordinary expression, a partner's disappointment led to more negative immediate emotional responses. But, importantly, despite the initial sting, participants were likely to construe their partner as having benign intentions, and ultimately, experienced motivation to engage in relationship-promoting behaviors. One might still wonder whether the observed effects are unique to disappointment or whether similar effects would be observed in response to other negative emotional expressions.

Perhaps it isn't expressions of disappointment per se that increase relationship-promoting motivation, but negative expressions more generally. Such a possibility would be consistent with work showing that threats to the stability of one's relationship, which are often signaled by a partner's negative emotional expression, motivate relationship-maintaining behaviors (Gable & Berkman, 2008; Leary, 2005). Ultimately, instead of being detrimental to the relationship, negative emotional expressions can motivate people to engage in relationship-promoting changes (Gable & Gosnell, 2013; Gable & Impett, 2012; Murray, Bellavia, Rose, & Griffin, 2003; Murray, Holmes & Collins, 2006). For example, Cohan and Bradbury (1997) found that wives' expressions of anger predicted positive relational future outcomes, such as increases in marital satisfaction in both wives and husbands.

To investigate the unique effects of disappointment, in Study 4, we compared expressions of disappointment with expressions of anger, another commonly experienced and expressed emotion in close relationships. We chose the emotion of anger for the comparison

condition due to growing research on how expressions of anger can benefit close relationships (see McNulty & Russell, 2010 and Baker, McNulty, & Overall, 2014 for review). Although both disappointment and anger are negative emotions, models of emotion conceptually distinguish between the two (Bell, 1985). Perceiving disappointment is more likely to evoke negative emotions responses directed at the self, such as guilt (Lelieveld, Van Dijk, Van Beest, & Van Kleef, 2011; Solak, Reifen Tagar, Cohen-Chen, Saguy, & Halperin, 2017). In contrast, perceiving anger is more likely to elicit negative emotions directed the partner, such as reciprocal anger (Wubben et al., 2009). We predicted that differences between disappointment and anger would not just be reflected in the nature of emotions elicited by the partner's expression, but would also be reflected in the construal of the partner's intentions, and resulting relationship-promoting motivations. Accordingly, we predicted that perceiving partners' disappointment and anger would both lead to immediate negative responses, given that both are negative emotional expressions. But critically, we predicted that perceiving partners' disappointment (vs. anger) would lead to greater benign construals (e.g., viewing the partner's expression as justified and serving a positive purpose) and greater levels of relationship-promoting motivation. This study was preregistered on Open Science Framework, details can be found at https://osf.io/86ptx?view_only=15137576188b422ca5408e6ce70c21f9.

Importantly, Study 4 explored the mechanisms by which a partner's expression of disappointment motivates relationship-promoting behaviors (although this analysis was not included in the pre-registration). As previously mentioned, research from neighboring areas has posited two pathways—one cognitive and one affective—by which the motivational effects of disappointment could occur. One route is cognitive wherein expressions of disappointment lead to prosocial behaviors by coloring subjective construals of interaction partners' intentions. For example, parents' disappointment is more likely to be viewed as

reflecting benign intentions by their children and predict children's positive emotional responses and prosocial behaviors (Patrick & Gibbs, 2012). Another non-mutually exclusive route is affective wherein expressions of disappointment lead to prosocial behaviors by coloring the affective responses of the recipient. For example, during bargaining, interaction partners' disappointment can elicit feelings of guilt (Lelieveld et al., 2011; Wubben et al., 2009) and increase prosocial behaviors, such as concession (Lelieveld et al., 2011). Indeed, the emotion of guilt is assumed to motivate prosocial behaviors (Frank, 1988; Ketelaar & Au, 2003). Given this theoretical backdrop, we examined the viability of these two pathways. Specifically, we assessed the extent to which participants' benign construals (cognitive) and immediate guilt-related emotional responses (affective) would independently mediate the link between partners' disappointment (vs. anger) expressions and participants' relationship-promoting motivation.

Method

Participants

Participants (N = 384) married for an average of 13.07 years (240 females; M_{age} = 41.12 years; 87.8% straight, 7.8% homosexual, 4.2% bisexual, 0.3% prefer not to answer) were recruited via Amazon's Mechanical Turk to complete a study titled *Negative Interactions in Close Relationships Study*. One participant was excluded for failing to complete at least 80% of the survey. A Monte Carlo power analysis for parallel mediation (Schoemann, Boulton, & Short, 2017) indicated that, with N = 383, the present study achieves 95% statistical power to detect significant indirect effects for the two mediators, assuming .3 for all paths.

Measures and Procedure

Participants were randomly assigned to one of the two conditions. In the disappointment condition, participants were asked to reflect on a specific, self-generated

event in which their romantic partner was disappointed in them. Participants in the anger condition were asked to reflect on a specific event in which their romantic partner was angry at them. In both conditions, participants were given the instruction to "*Try to recall an event that you remember vividly. Fully imagine your interaction with your partner – what did your partner say and do? How did you feel in response?*" Participants were given 30 seconds to think about the specific event. Following the manipulation, as in Study 3, participants completed measures to assess immediate emotions after the perceiving their partner's disappointment, momentary relationship quality, construals of partner's intentions, and relationship-promoting motivation.

Data Analytic Strategy

We conducted the same analyses as in Study 3, but here, instead of an ordinary event, we compared perceiving partners' disappointment to anger. In addition, we conducted a parallel mediation analysis with participants' immediate negative self-directed emotions as the first mediator and benign construals as the second mediator. This model allows for the estimation of the independent effects of the immediate negative self-directed emotions and benign construals on the motivational effects of perceiving disappointment (vs. anger). To test this mediation model, we employed the PROCESS modeling program (Hayes, 2012) Model 4. We first computed a score for benign construals (mediator 2) by aggregating participants' responses on the perceived justification of partners' expressions, perceived positive purpose, and the reverse coding of participants' perceived negative purpose and no purpose (α = .853). This construal score was then standardized.[10] We also standardized participants' immediate negative self-directed emotions (mediator 1), and relationship promoting motivation. In the mediation models, the conditions (disappointment = 1; anger =

[10] We also computed a factor score of participants' perceived justification, positive purpose, negative purpose, and no purpose. Conclusions drawn from mediation analysis with the factor score were the same as those drawn from mediation analysis with the standardized aggregation score.

0) was the predictor variable, and participants' relationship-promoting motivation was the outcome variable. All indirect effects were estimated using 1000 bootstrap samples analysis and 95% bias corrected confidence intervals.

Results

Table 2.2 reports descriptive statistics (*M, SD*) for all key dependent variables and the results (*B*, 95% CI, *d*, *p*) for our primary hypotheses comparing the disappointment condition to the anger condition. Zero order correlations among variables for each condition are reported in the Supplemental Materials.

Table 2.2

Study 4: Summary of the Effect of Recalling Partner's Disappointment (vs. Anger) on the Key Dependent Variables.

	Disappointment		**Anger**		**Difference (Disappointment – Anger)**			
	M	*SD*	*M*	*SD*	*B*	95% CI	Cohen's *d*	*p*
	Immediate Responses Elicited by Partners' Expressions							
General Positive Emotion	1.79	0.83	1.70	0.98	0.11	[-0.08, 0.30]	0.13	0.253
Dejected Related Emotion	3.88	1.59	3.68	1.61	0.20	[-0.12, 0.53]	0.12	0.212
Negative Self-Directed Emotion	3.95	1.76	3.31	1.56	0.64	[0.31, 0.98]	0.39	< .001
Negative Partner-Directed Emotion	3.94	1.73	4.42	1.69	-0.48	[-0.83, 0.14]	0.28	0.006
Relationship Quality Change	-0.32	3.68	-1.25	3.63	0.93	[0.18, 1.67]	0.25	0.015
	Construal of Partners' Intentions							
Positive Purpose	0.01	5.74	-2.27	5.82	2.28	[1.12, 3.44]	0.39	< .001
No Purpose	-2.44	6.16	-0.38	6.51	-2.01	[-3.33, -0.78]	0.33	0.002
Justified	1.52	6.19	-1.06	5.93	2.57	[1.36, 3.79]	0.43	< .001
Negative Purpose	-2.75	5.96	-0.88	5.97	-1.87	[-3.07, -0.67]	0.31	0.002
	Relationship-Promoting Changes							
Motivation	2.78	4.24	1.22	4.40	1.56	[0.69, 2.43]	0.36	< .001
Actual Change	2.52	4.00	1.48	3.91	1.04	[0.24, 1.84]	0.26	0.011

Note. Immediate emotional responses were measured using a Likert-scale ranging from 1 (*Not at all*) to 7 (*Extremely*). Relationship quality change, construal, and relationship-promoting changes were measured using a slider scale ranging from -10 to 10.

Responses to Perceiving Disappointment (As Compared to Anger)

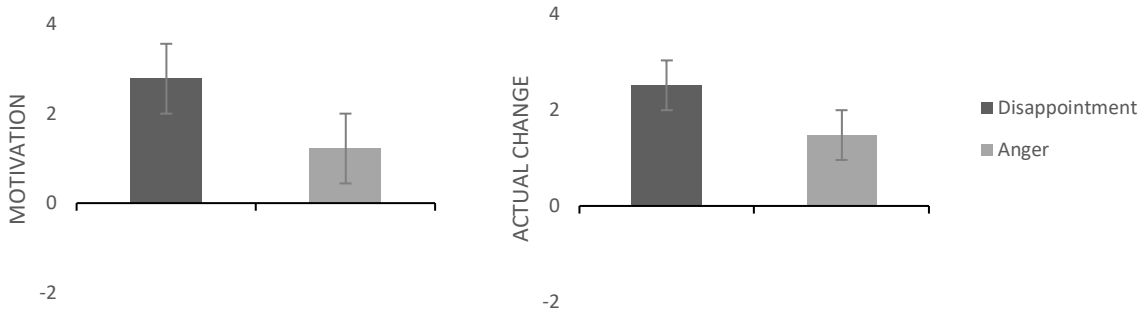
Immediate Responses Elicited by Partners' Expressions. Overall, for both disappointment and anger conditions, participants experienced more negative emotions as compare to positive. Additionally, there were no statistically significant differences between disappointment and anger conditions in immediate general positive emotions and dejected-related emotions. However, compared to perceiving partners' anger, perceiving partners' disappointment led to higher levels of immediate negative self-directed emotions and lower levels of immediate negative partner-directed emotions. These results fit in with literature showing that expressions of disappointment lead to guilt related emotions, whereas expressions of anger lead to reciprocal anger (Wubben et al., 2009). Lastly, perceiving partners' disappointment led to less decrease in immediate relationship quality than perceiving partners' anger.

Construal of Partners' Intentions. Overall, perceiving partners' disappointment expressions led to more benign construals than partners' anger expressions. Compared to expressions of anger, partners' disappointment was perceived as more justified and as serving a positive purpose, and less likely to as intending to be hurtful or as serving no purpose.

Relationship-Promoting Changes. As shown in Figure 2.3, compared to the anger expressions, disappointment expressions from partners led to significantly greater motivation to engage in relationship-promoting changes and actual behavioral changes in real life.

Figure 2.3

Relationship-Promoting Motivation and Actual Change between Disappointment and Anger Conditions (Study 4)



Note. Bars represent participants' motivation for relationship-promoting changes (left panel) and reported actual behavioral change (right panel) between disappointment and anger condition. Zero on the y-axis reflects that participants reported experiencing no changes in motivation or behaviors; positive numbers reflect increased motivation or behaviors for relationship-promoting changes; negative numbers reflect relationship-destructive changes. Error bars represent 1 *SE* above and below the mean.

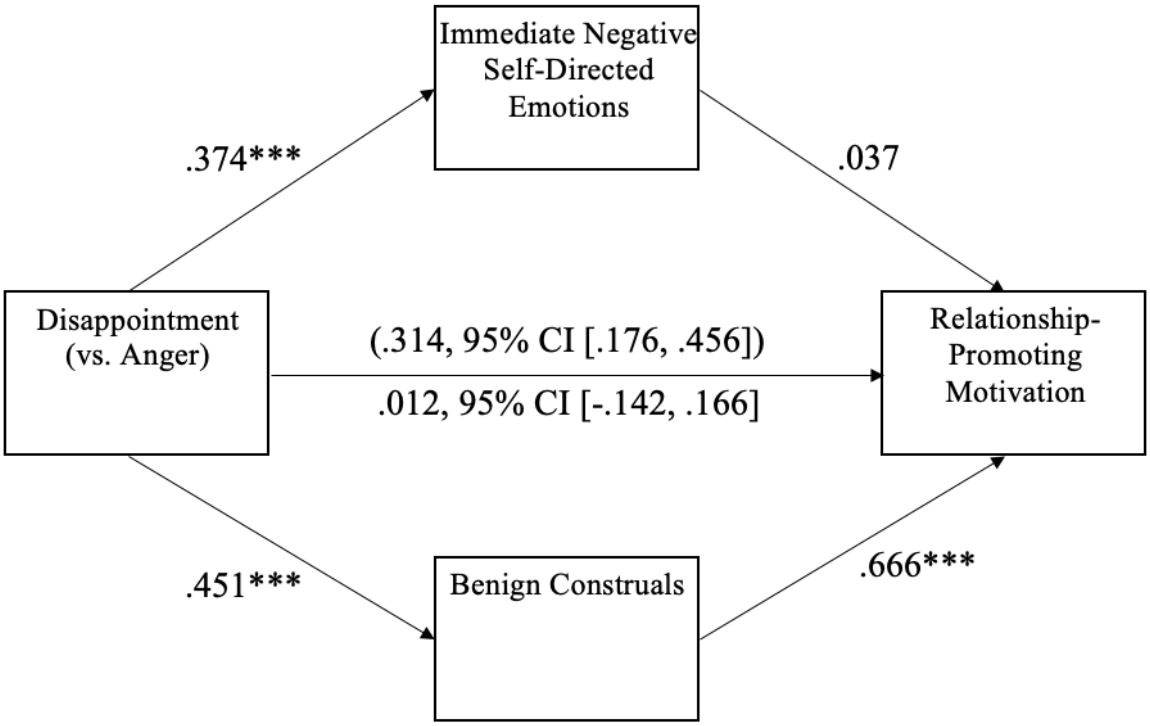
What Are the Mechanism(s) by which Disappointment Leads to Relationship-Promoting Motivations?

As shown in Figure 2.4, the mediation analyses showed that partners' disappointment (vs. anger) predicted greater benign construals ($b = .451$, $p < .001$), as well as higher levels of immediate negative self-directed emotions ($b = .374$, $p < .001$). Furthermore, participants' benign construals predicted greater relationship-promoting motivation ($b = .666$, $p < .001$). But immediate negative self-directed emotions did not significantly predict relationship-promoting motivation ($b = .037$, $p = .355$). The indirect effect of disappointment (vs. anger) on relationship-promoting motivation through benign construals was statistically significant ($b = .300$, 95% CI [0.17, 0.44]), supporting the hypothesis that participants' benign construals serve as an independent mediator for the motivational effect of partners' disappointment (vs. anger) expressions. The indirect effect of disappointment (vs. anger) on relationship-promoting motivation through immediate negative self-directed emotions was not statistically

significant (b = .014, 95% CI [-0.01, 0.05]).[11]

Figure 2.4

Parallel Mediation Analyses for the Effect of Disappointment (vs. Anger) on Relationship-Promoting Motivation through Immediate Negative Self-Directed Emotions and Benign Construals (Study 4)



Note. Parallel mediation analyses with standardized regression coefficients illustrating the effect of perceiving disappointment (vs. anger) on an aggregation of motivation and reported actual relationship-promoting changes via immediate negative self-directed emotions and benign construals. Standardized regression coefficients in parentheses represent the total effect of disappointment (vs. anger) on relationship-promoting motivation. *p < .05, **p < .01, ***p < .001.

[11]The effect of benign construal remained consistent even after statistically control for differences between disappointment and anger in immediate momentary relationship quality. Please see the model in Supplemental Materials.

Discussion

Study 4 provides evidence attesting to the pronounced motivational influence of perceiving partners' disappointment. By comparing expressions of disappointment to anger, another commonly experienced and expressed negative emotion in close relationships, we controlled for the valence elicited by the memory recall. In addition, we found that although negative emotional expressions, such as anger, have been shown to be beneficial to relationships under some circumstances, Study 4 showed that, compared to anger, partners' expressions of disappointment exerted even more beneficial motivational influences, increasing individuals' motivation to engage in relationship-promoting changes and their actual changes. Importantly, Study 4 provides novel evidence of the pathways through which disappointment expressions motivate relationship-promoting behaviors. Specifically, we found that the link between disappointment (vs. anger) expressions and relationship-promoting motivation was independently mediated by benign construals.

Despite the evidence across Studies 1-4, one might still ask: Are the benefits elicited by disappointment observed in our studies driven by the emotion of disappointment itself, or might they reflect differences in the events that individuals brought to mind? That is, perhaps the events that trigger partners' disappointment are, in general, less severe than the triggering events of partners' anger. If so, differences in the memories recalled in the disappointment (vs. anger) condition might have led to the observed effects, rather than the emotional expression of the partner. In Study 5, we aimed to address this concern by having participants in both conditions imagine the same hypothetical event, with only the emotional expression of the partner (disappointment vs. anger) differing between the conditions.

Study 5

Study 4 provides experimental evidence of the affective, cognitive, and motivational effects of disappointment and that the beneficial effects are more pronounced than those

elicited by anger—another negative emotional expression. To further attest to the consequential effects of perceiving partners' expressions of disappointment, in Study 5, we asked all participants to imagine the same event (i.e., *you are late to an important event*). Critically, participants were randomly assigned to either imagine that their partner responded with disappointment or anger. Because participants in both conditions imagined the same event, we are able to isolate that any differences in affective, cognitive, and motivational responses between the two conditions are due to partners' disappointment (vs. anger) expressions. This study was a preregistered study on the Open Science Framework, https://osf.io/d3jca/?view_only=5d73421a577a48a9ae9a8f96a973d203.

Method

Participants

Participants (N = 381) married for an average of 7.01 years (151 females; M_{age} = 31.98 years; 57.5% straight, 10.5% homosexual, 29.4% bisexual, 2.6% other) were recruited via Amazon's Mechanical Turk to complete a study titled *Hypothetical Interactions in Close Relationships Study*. No participant was excluded.

Measures and Procedure

Participants were randomly assigned to one of the two conditions in which they imagined a hypothetical event in which their partners expressed disappointment or anger: *My partner says he/she is* ***disappointed [angry]*** *because I am late to an important event.* In both conditions participants were instructed to "*Try to vividly imagine the situation described – what would your partner say and do? How would you feel in response?*" Participants were given 30 seconds to think about the scenario. Following the manipulation, participants completed the same measurements as in Studies 3 and 4. Specifically, participants reported their immediate emotions, momentary relationship quality, construals of partner's intentions, and relationship-promoting motivation.

Data Analytic Strategy

We conducted the same analysis as in Study 4.

Results

Table 2.3 reports descriptive statistics (*M, SD*) for all key dependent variables and the results (*B*, 95% CI, *d*, *p*) for our primary hypotheses comparing the disappointment condition to the anger condition. Zero order correlations among variables for each condition are reported in the Supplemental Materials.

Table 2.3

Study 5: Summary of the Effect of Imagining Partner's Disappointment (vs. Anger) on the Key Dependent Variables.

	Disappointment		Anger		Difference (Disappointment – Anger)			
	M	*SD*	*M*	*SD*	*B*	95% CI	Cohen's *d*	*p*
	Immediate Responses Elicited by Partners' Expressions							
General Positive Emotion	2.07	0.97	2.01	1.03	0.06	[-0.15, 0.26]	0.06	0.589
Dejected Related Emotion	3.34	1.40	3.34	1.46	-0.01	[-0.29, 0.28]	0.00	0.971
Negative Self-directed Emotion	3.87	1.58	3.72	1.58	0.15	[-0.17, 0.47]	0.10	0.351
Negative Partner-Directed Emotion	3.37	1.64	3.75	1.64	-0.37	[-0.70, -0.04]	0.23	0.027
Relationship Quality Change	-0.09	3.05	-0.78	2.80	0.69	[0.08, 1.30]	0.24	0.026
	Construal of Partners' Intentions							
Positive Purpose	0.32	4.98	-1.35	4.97	1.67	[0.67, 2.67]	0.34	0.001
No Purpose	-3.48	5.46	-1.45	6.32	-2.03	[-3.22, -0.84]	0.34	0.001
Justified	3.44	4.59	1.60	5.49	1.84	[0.81, 2.86]	0.36	<.001
Negative Purpose	-3.17	5.61	-1.95	5.81	-1.22	[-2.37, -0.07]	0.21	0.038
	Relationship-Promoting Changes							
Motivation	3.34	4.08	1.76	4.07	1.58	[0.75, 2.40]	0.39	<.001
Actual Change	3.37	3.94	1.69	3.81	1.68	[0.90, 2.47]	0.43	<.001

Note. Immediate emotional responses were measured using a Likert-scale ranging from 1 (*Not at all*) to 7 (*Extremely*). Relationship quality change, construal, and relationship-promoting changes were measured using a slider scale ranging from -10 to 10.

Immediate Responses Elicited by Partners' Expressions. As expected, participants in both the disappointment and anger condition reported more negative emotional responses, as compared to positive. There were no statistically significant differences between disappointment and anger conditions in immediate general positive emotions, dejected-related emotions, and negative self-directed emotions, although partners' anger expression, compared to disappointment, led to higher levels of immediate negative partner-directed emotions.

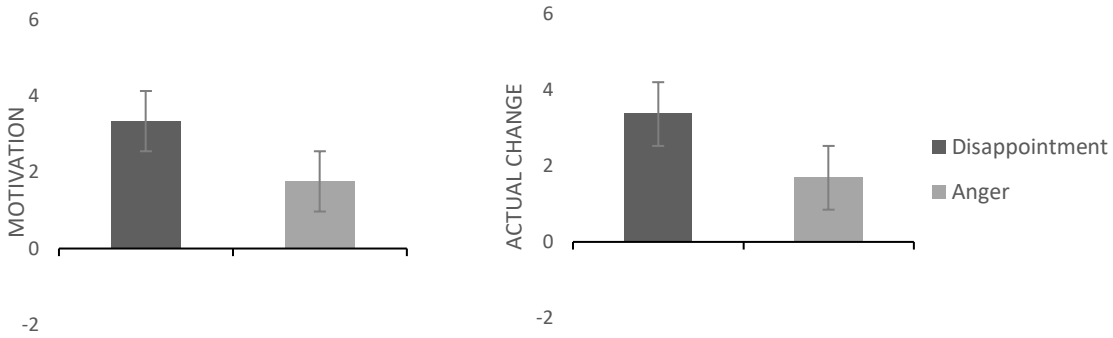
In addition, imagining partners' disappointment led to less decrease in immediate relationship quality than perceiving partners' anger. Specifically, imagining partners' anger led to a statistically significant decrease in participants' immediate relationship quality (M = -0.78, SD = 2.80; $t(178)$ = -3.722, $p < .001$. d = .28), compared to the mid-point of zero, reflecting "no change." In contrast, imagining partners' disappointment did not lead to a statistically significant decrease in relationship quality (M = -0.09, SD = 3.05; $t(178)$ = -.386, p = .700. d = .03).

Construal of Partners' Intentions. Overall, participants generated more benign construals of a partner's disappointment (vs. anger) expression. Compared to anger, partner's disappointment expression was perceived as more justified and serving a positive purpose and as less likely to be intending to be hurtful or serving no purpose.

Relationship-Promoting Changes. As shown in Figure 2.5, compared to the anger expressions, disappointment expressions from partners led to significantly greater motivation to engage in relationship-promoting changes.

Figure 2.5

Relationship-Promoting Motivation and Actual Change between Controlled Disappointment and Anger Conditions (Study 5)



Note. Bars represent participants' motivation for relationship-promoting changes (left panel) and reported actual behavioral change (right panel) between disappointment and anger conditions with controlled events. Zero on the y-axis reflects that participants reported experiencing no changes in motivation or behaviors; positive numbers reflect increased motivation or behaviors for relationship-promoting changes; negative numbers reflect relationship-destructive changes. Error bars represent 1 *SE* above and below the mean.

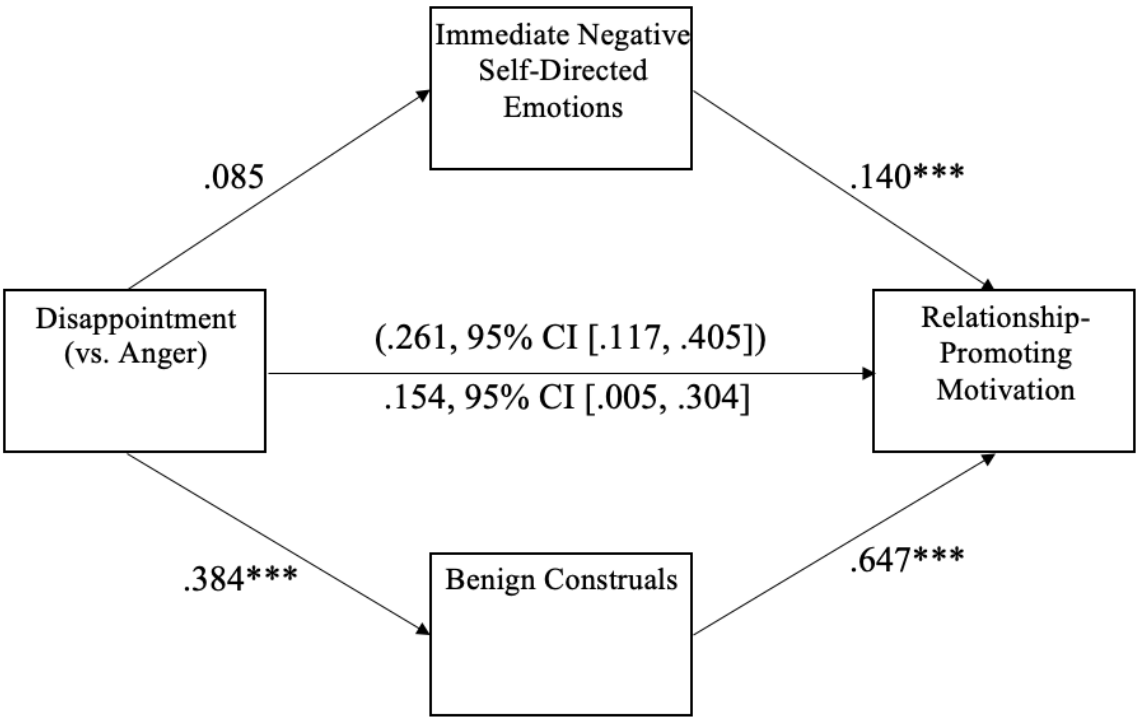
What Are the Mechanism(s) by which Disappointment Leads to Relationship-Promoting Motivations?

As shown in Figure 2.6, the mediation analysis revealed that partners' disappointment (vs. anger) expression (b = .384, p <.001) predicted more benign construals. However, partners' disappointment (vs. anger) did not significantly predict participants' immediate negative self-directed emotions (b = .085, p = .416), which is inconsistent with the results of Study 4 and will be further discussed in the discussion section. Furthermore, participants' immediate negative self-directed emotions (b = .140, p <.001) and benign construals (b = .647, p <.001) both uniquely predicted greater relationship-promoting motivation. Lastly, consistent with the results in Study 4, the indirect effect of disappointment (vs. anger) on relationship-promoting motivation through benign construals was statistically significant (b = .249, 95% CI [0.12, 0.39]). The indirect effect of disappointment (vs. anger) on relationship-

promoting motivation through immediate negative self-directed emotions was not statistically significant (b = .012, 95% CI [-0.02, 0.05]).

Figure 2.6

Parallel Mediation Analyses for the Effects of Disappointment (vs. Anger) on Relationship-Promoting Motivation through Immediate Negative Self-Directed Emotions and Benign Construals (Study 5)



Note. Parallel mediation analyses with standardized regression coefficients illustrating the effect of imagining disappointment (vs. anger) on an aggregation of motivation and actual relationship-promoting changes via immediate negative self-directed emotions and benign construals. Standardized regression coefficients in parentheses represent the total effect of disappointment (vs. anger) on relationship-promoting motivation. *p < .05, **p < .01, ***p < .001.

Discussion

Overall, Study 5 replicated key findings observed in Study 4 using a hypothetical scenario to manipulate disappointment (vs. anger). Specifically, all participants imagined the same event (i.e., *my partner says he/she is disappointed [angry] because I am late to an important event*). But imagining their partner's disappointment (vs. anger) led to more benign construals, which in turn, elicited greater relationship-promoting motivation. By using the same event, we provide evidence that the observed beneficial effects of disappointment did not arise because of the differences in mental reflections of partners' expressions. Instead, the observed effects were driven by the emotion of disappointment itself, supporting our hypothesis that expressions of disappointment serve a unique, motivational function in close relationships. Additionally, providing a conceptual replication of the mediation analysis, Study 5 provides further evidence that the link between disappointment (vs. anger) expressions and relationship-promoting motivation was independently mediated by benign construals.

General Discussion

Relationships are full of ups and downs. Romantic partners not only experience and express positive emotions in their relationships, but also negative ones. Of all the negative emotions commonly experienced and expressed in romantic relationships, prior work has primarily focused on anger (Gottman & Levenson, 1992; Karney & Bradbury, 1995; Overall et al., 2009), sadness (Clark & Brissette, 2003; Guerrero et al., 2008), and jealousy (Fitness & Fletcher, 1993; Kar & O'Leary, 2013). The role of disappointment has yet to be given the attention it deserves. To address this gap, the current research provides the first empirical examination of the influence of disappointment on romantic relationship functioning and outcomes.

Across five studies (two exploratory and three theory-confirmatory, two of which were preregistered), we investigated the influence of perceiving disappointment from romantic partners on people's affective, cognitive, and behavioral responses. Because there has been little work on the consequences of disappointment in close relationships, Study 1 used a qualitative approach to offer a first look at people's perceptions, emotional reactions, construals, and motivations following partners' disappointment. Based on analyses of open-ended responses, we found that, despite initially experiencing negative emotions, most participants reported benign construals of their partners' disappointment, perceiving that the emotional expression was justified, served a positive purpose, and was not intended to be hurtful. Moreover, participants reported experiencing relationship-promoting motivations, expressing desire to make relationship-promoting change. In Study 2, we developed methods informed by Study 1 results to provide quantitative evidence of the motivational consequences of perceiving partner disappointment. The results of the correlational study corroborated the initial qualitative findings: Perceiving partners' disappointment led to immediate negative emotional responses. However, participants generated benign construals and reported relationship-promoting motivations.

Critically, as part of the theory-confirmation phase, Study 3 compared partners' disappointment to an ordinary interaction with one's partner. Reflecting on an actual past event in which one's romantic partner expressed disappointment, as compared to reflecting on an ordinary event with one's partner, elicited immediate negative emotional responses. Despite the initial negative sting, partners' disappointment (vs. ordinary event) led to construing the partner's expression as more likely to serve a positive purpose and less likely to serve no purpose, and ultimately, enhanced motivation to engage in relationship-promoting changes. Finally, Studies 4 and 5 provide strong causal evidence of the motivational influence of partners' disappointment by comparing disappointment with anger. Although

both disappointment and anger led to immediate negative emotional responses, partners' disappointment elicited greater benign construals and relationship-promoting motivations. Overall, using different methods to bring to mind an instance wherein one's partner expresses disappointment (actual, self-generated past event, as well as hypothetical, controlled event), and various comparison conditions (ordinary event, as well as anger), the findings highlight the relational benefits of momentary expressions of disappointment in close relationships.

The Function of Benign Construal

Why does perceiving partners' disappointment enhance relationship-promoting motivations? In Studies 4 and 5, we examined two possible mechanisms—cognition and affect—for understanding the motivational effects of perceiving disappointment. On the one hand, the cognitive account focuses on what information is communicated, albeit implicitly, when disappointment is expressed? In parent-child relationships, parental expressions of disappointment are construed in a benign fashion, perceived by children as more justified and fairer (Patrick & Gibbs, 2017). From this perspective, one reason why disappointment is motivating is that expressions of disappointment are viewed as well-intentioned and justified. On the other hand, the affective account focuses on an emotion-based explanation—essentially, what emotional responses are elicited in the recipient of disappointment? In negotiation settings, perceiving disappointment in another person can elicit guilt (Lelieveld et al., 2012; Wubben et al., 2009), which in turn leads to concession and compromise (Lelieveld et al., 2011). From this perspective, the essential characteristic that makes disappointment beneficial is the emotional reaction elicited by perceiving that one's actions have led to another person's disappointment.

The present work examined the viability of both cognitive and affective pathways. The results provide empirical evidence for a cognitive pathway by which disappointment leads to relationship-promoting motivations. Specifically, in response to partner's

disappointment, one is more likely to construe their partner's expression as reflecting benign intentions, which then boosts relationship-promoting motivations. Indeed, across all studies (Studies 1-5), participants perceived partners' expressions of disappointment as justified and serving good intentions. More importantly, in Studies 4 and 5, we identified benign construals of partners' intentions as a key psychological pathway between disappointment and relationship-promoting motivational effects. Specifically, in both studies, the results of mediation analyses showed statistically significant indirect effects of perceiving partner's disappointment (vs. anger) on relationship-promoting motivation through benign construals. Overall, the pattern of results supports a cognitive account for the motivational role of disappointment.

With regard to the affective account, the current work did not find empirical evidence that the emotions elicited by perceiving partner's disappointment led to relationship-promoting motivations. To be clear, in all studies, partner's disappointment more strongly elicited negative emotions, including self-directed negative emotions such as guilt. In negotiations between strangers, self-directed negative emotions have been implicated in prosocial behaviors (Lelieveld et al., 2012; Wubben et al., 2009). But our mediation analyses did not find empirical evidence that self-directed emotional responses accounted for relationship-promoting motivations.

Why might have the effect of perceiving partner's disappointment on relationship enhancing motivation observed in the present work operate through benign construals (a cognitive mechanism), but not self-negative emotions (an affective mechanism)? The present findings are in line with emotions as social information (EASI) theory (Van Kleef, 2016) that posits two pathways (inferential and affective) by which emotions may exert their effects. For example, if a partner expresses disappointment, the other partner can respond affectively (e.g., feeling guilty) or cognitively (e.g., inferring that the partner's disappointment reflects

positive intentions). Importantly, the extent to which a perceiver's behavior is guided by inferential (cognitive) or affective pathways, or both, depends on a number of factors, including the nature of the relationship (Van Kleef & Côté, 2018). Concretely, inferential processes are more likely to shape relational outcomes when two people are highly dependent on one another and each has high concern for the other (Van Kleef & Côté, 2018). Notably the current work examined the influence of perceiving disappointment in long-term married participants - relationships characterized by high interdependence and commitment. From an EASI perspective, one would then expect that inferential processes (e.g., generating benign construals) should be more likely to shape motivational and behavioral outcomes. Indeed, affective processes are more likely to shape outcomes in interactions between strangers, as has been shown in past work where a bargaining partner's guilt plays a key role in giving rise to prosocial behaviors (Lelieveld et al., 2011; Lelieveld et al., 2012).

Implications for the Function of Emotions in Close Relationships

The role of disappointment in close relationships has been largely understudied. In this regard, the present work informs the literature on negative communication in close relationships. The traditional view is that negative communication is linked with dysfunctional behavioral patterns and negative outcomes (Fincham, 2003; Heyman, 2001; Kiecolt-Glaser, et al., 2003; Le, Côté, Stellar, & Impett, 2020). Yet, there is a growing body of literature suggesting that direct expressions of negative emotions, at times, can be beneficial in the long-term, for example, by signaling that there is a problem, which in turn leads to problem resolution (Karney & Bradbury, 1997; McNulty & Russell, 2010; Overall & McNulty, 2017). The present findings provide evidence in favor of this newer perspective that negative emotional expressions may be beneficial to relationship functioning. Although perceiving partners' disappointment elicited negative emotional responses, it increased individuals' motivation to engage in relationship-promoting behaviors. Indeed, in our studies,

partner's expression of anger also enhanced motivation to engage in relationship-promoting behaviors. But importantly, perceiving partner's disappointment (as compared to anger) was more likely to lead to benign construals of partner's intentions and subsequently greater relationship-promoting motivation.

Future Directions

The current work is a first step at looking at disappointment in close relationships. Still, there are many questions that require further examination. First, our work used memory recalls and hypothetical scenarios to activate an instance of partners' disappointment. There are advantages to each approach. Recalling an actual past event in which a partner expresses disappointment ensures that the event captures the idiosyncrasies of the partner's expression and the particular relationship, and thus the vividness and realism of the disappointment expression. As a complement, the hypothetical scenario visualization approach allows us to exert more experimental control over the specific behavior that led to the partner's expression (i.e., "being late") and the directness of the emotional expression (i.e., "my partner says he/she is disappointed"). Indeed, hypothetical scenarios are frequently used to assess responses to a variety of real life event (Critcher & Zayas, 2014; Salerno & Slepian, 2022). But how people respond to instances of disappointment that are brought to mind, either real or imagined, versus instances of disappointment that are experienced in-the-moment may differ. Future work would benefit by developing paradigms to experimentally manipulate expressions of disappointment in romantic relationships, while maintaining high psychological realism.

In addition, the current work adapts open-ended and self-report methodology to assess people's emotional responses, construals of partners' expressions, and motivations to change. Self-report methods are commonly used to assess a person's emotional, cognitive, and motivational responses (Le et al., 2020), allowing researchers to have direct access to

naturally abstract constructs, such as one's subjective feelings, construals, and goals. Still, self-reports can be affected by factors such as self-presentation and distortions. Although emotion research finds that self-report measures produce results consistent with other methods (Van Kleef & Côté, 2018), future research can adapt other methods, such as indirect measures of affect, motivation, and construals, to examine the relationship-promoting effects of disappointment (Zayas, & Shoda, 2005; Zayas & Shoda, 2015).

Furthermore, future research should examine how the frequency of expressing and perceiving disappointment affects the benefits of disappointment in close relationships. The current study finds that recalling *one* expression of disappointment motivates relationship-promoting behaviors; however, it is possible that frequent expressions of disappointment may undermine the beneficial effects, and may even be detrimental to relationship functioning. The informational value of a partner's disappointment as reflecting a situational factor (e.g., one's own actions) versus a dispositional factor (e.g., one's partner unrealistically high expectations or personality) is greater when the partner does not always express disappointment (Filipowicz, Barsade, & Melwani, 2011). Thus, frequent expressions of disappointment may lead to different consequences, a possibility that requires further examination.

Aside from the effect of perceiving disappointment, future work is needed to examine when, why, and how people *express* disappointment in close relationships. How people express their disappointment in romantic partners, and why people express disappointment, as compared to other emotions, such as sadness, or anger, may further our understanding of the function of disappointment in romantic relationships. Relatedly, might individuals strategically regulate the expressed emotion to elicit desired changes in their partner? Future work is needed to examine disappointment from the point of view of the expresser.

Regarding the generalizability of the findings, the current work examined the effects

of perceiving partner's disappointment among married individuals, whose decision to wed is a clear signal of their high mutual commitment (Swensen & Trahaug, 1985). Commitment strongly predicts relationship maintenance motivation (Finkel, Simpson, & Eastwick, 2017; Le & Agnew, 2003), such that highly committed couples are more likely to engage in behaviors that maintain and promote the quality of their relationships. One may, therefore, wonder whether the motivational effects of disappointment generalize to dating individuals and cohabitating couples, who comparatively may be less committed. Although the current study did not find statistically significant relationships between marital length, an indicator of commitment, and disappointment-related emotional responses, construals of partners' intentions, and relationship-promoting motivations (please see Supplemental Materials), this pattern may differ depending on the nature of the relationship. Similarly, it is also unknown whether the motivational effects of disappointment generalize to other cultures, especially collectivist cultures that are characterized by a higher degree of interdependence.

Concluding Remarks

Despite the extensive literature on the role of negative emotional expressions in close relationships, such as anger, sadness, and jealousy, remarkably little attention has been given to investigating the emotion of disappointment. The current work delineates the affective, cognitive, and motivational effects of perceiving disappointment, providing evidence that there is a unique upside to disappointment in close relationships.

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CHAPTER 4

Love Conquers Negative Emotions: the Effect of Chronic Relationship Quality on Perceiving Disappointment in Romantic Relationships

In the face of difficult times, close relationships can buffer negative feelings (Mikulincer & Shaver, 2007; Sbarra & Hazan, 2008; Selcuk, Zayas, Gunaydin, Hazan, & Kross, 2012; Selcuk, Zayas, & Hazan, 2010), and boost our mental and physical well-being (Kim & McKenry, 2002; Proulx, Helms, & Buehler, 2007). But unfortunately, close relationships are also one of the primary sources that elicit our negative emotions (Berscheid & Ammazzalorso, 2001; Clark & Taraban, 1991). Indeed, negative emotions occur most frequently and intensely in close relationships (Ekman & Davidson, 1994), and people tend to react more strongly to emotional expressions from significant others (Clark, Pataki, & Carver, 1996), compared to acquaintances and strangers. When perceiving different negative emotions from romantic partners, how do our love and commitment to our relationships mitigate the negative effects and impact our cognitive and behavioral tendencies? In the present work, we aim to partially address this question by examining the role of chronic relationship quality in perceiving disappointment, a common but understudied negative emotion in romantic relationships (Cui, Sakman, & Zayas, in prep).

Although there has been a longstanding interest in the function of emotions in romantic relationships, existing work has yet to examine how expressions of disappointment operate in romantic relationships. Disappointment arises from unmet expectations (Bell, 1985; Frijda, 1986; Loomes & Sugden, 1986; Van Kleef & Van Lange, 2008; Weiner, Russell, & Lerman, 1979), and it may play an essential role in romantic relationships. Romantic partners constantly establish expectations about how each other would and should behave in the relationships (Berscheid, 1983). However, the sad reality is that one partner inevitably fails to meet the other partner's expectations, resulting in the other partner's

disappointment.

How does one react to a partner's expressions of disappointment? Our recent work provides the first empirical evidence indicating that although perceiving partner's disappointment elicits negative emotional responses, married individuals generate benign construals of partner's intentions and, in turn, experience enhanced relationship-promoting motivations. (Cui & Zayas, under revision). We found a significant relationship-promoting effect of perceiving partner's disappointment compared to an ordinary interaction and compared to anger. However, it is still unknown how individual differences, such as one's chronic relationship quality, influence people's perceptions of partner's expressions of disappointment.

A person's relationship quality, including relationship satisfaction and commitment, serves an essential role in regulating negative emotions in romantic relationships (Bloch, Haase, & Levenson, 2014; Eisenberg, Hofer, & Vaughan, 2007). High relationship quality is associated with more adaptive emotional regulation strategies (English, John & Gross, 2013; Levenson, Haase, Bloch, Holley, & Seider, 2014). Specifically, chronically satisfied individuals tend to downregulate the severity of the perceived negative emotional expressions from romantic partners (Bloch et al., 2014) and, importantly, generate positive construals of partners' negative emotions (Fincham & Bradbury, 1987; Murray, Bellavia, Rose, & Griffin, 2003; Murray, Holmes, & Collins, 2006; Zayas, Surenkok, & Pandey, 2017).

Indeed, much past empirical evidence suggests that individuals with high-quality romantic relationships tend to construe problems in their relationships, such as negative emotional expressions from their romantic partners, in more positive ways (Fincham & Bradbury, 1993; Griffin & Buehler, 1993; Griffin & Ross, 1991; Murray & Holmes, 1994). Specifically, satisfied individuals are less likely to view their partner's negative emotions and behaviors as intentional, blameworthy, and selfishly motivated (Karney, Bradbury, Fincham,

& Sullivan, 1994; Rusbult, Johnson, & Morrow, 1986). In turn, consistently practicing benign construals of partner's intentions strengthen the bond between the romantic partners (Fincham, Harold, & Gano-Philips, 2000).

Building on our work and the past literature, we hypothesized that married individuals with high chronic relationship quality are more likely to report benign construals of partner's intentions and motivations to engage in relationship-promoting changes following perceiving partner's disappointment. In addition, because benign construals of romantic partners associate with greater empathy (Fincham, Paleari, & Regalia, 2002), forgiveness (Fincham, 2000), and positive emotional and behavioral responses towards the partner (Cislak & Wojciszke, 2008; Fiske, Cuddy, & Glick, 2007), we hypothesized that the enhanced relationship-promoting effect of perceiving disappointment in individuals with high chronic relationship quality would be explained via benign construals of partner's intentions.

To test these hypotheses, in the current research, we recruited married participants with an average marital length of 11.32 years. We selected married samples because partners in short-term dating relationships, compared to long-term marital relationships, report higher levels of relationship quality (Charles & Carstensen, 2002). Therefore, we may observe a skewed distribution of relationship quality in dating samples. In addition, because of the high relationship quality in dating relationships, dating individuals may be less likely to experience and express negative emotions, making it easier for them to generate benign construals of partner's intentions and report relationship-promoting motivation. Therefore, in the present work, our samples are based on long-term married individuals.

Across four studies, married individuals were asked to reflect on a past instance in which they perceived disappointment from their romantic partners. Study 1 was a descriptive, correlational study that examined how an individual's chronic relationship quality predicts their construals of partner's intentions and motivations to engage in relationship-promoting

changes after perceiving the partner's disappointment. Study 2 (preregistered) examined the role of an individual's chronic relationship quality on the downstream consequences of perceiving a partner's disappointment, compared to anger, another commonly experienced negative emotion in romantic relationships. Study 3 examined the effect of an individual's chronic relationship quality on perceiving partner's disappointment, compared to an ordinary event. Finally, Study 4 examined the role of chronic relationship quality using controlled disappointment (vs. ordinary) hypothetical events. We report all studies, including manipulations, measures, sample size, and data. All studies are approved by the Cornell IRB board.

Study 1

The aim of Study 1 was to explore the effect of a person's chronic relationship quality on the affective, cognitive, and behavioral responses to perceiving partner's disappointment. We explored the possibility that participants characterized by high (vs. low) chronic relationship quality would generate greater benign construals of partners' disappointment—an ostensibly negative event—resulting in enhanced motivation to change.

In addition, Study 1 aimed to explore the mediating role of benign construals in the link between an individual's relationship quality and relationship-promoting motivations. We predicted that individuals with high chronic relationship quality reported relationship-promoting motivation via generating more benign construals of partners' intentions. Therefore, for the mediation model, we focused on the between-person variability in chronic relationship quality and its correlation with relationship-promoting motivations in response to perceiving partner disappointment. If benign construals are key mediators, then high relationship quality individuals' enhanced motivational effects in response to perceiving partner's disappointment should be mediated by their greater benign construals of partner's intentions.

Method

The present study is part of a larger project investigating the role of perceiving disappointment in romantic relationships (Cui & Zayas, under revision). In the past work, we focused on the overall effect of disappointment (compared to anger and ordinary interaction). However, in the current work, we focused specifically on the role of individual differences in chronic relationship quality on the downstream consequences of perceiving partner's disappointment. The present work focused on chronic relationship quality and its effect on benign construals and relationship-promoting motivation. We adapted different statistical analyses and explored different mechanisms explaining the effect of chronic relationship quality. Below, we summarize information relevant to the current work.

Participants

We recruited 217 married participants via Amazon Mechanical Turk. Participants who failed the attention check or did not complete the open-ended manipulation checks were automatically excluded from the study. On average, our sample of participants (144 females, 73 males; Mage = 37.89 years; 80% White, 7.8% Black, 7.8% Asian, 4.4% Other; 88% straight, 7% homosexual, 5% bisexual) had been married for 12.31 years. The purpose of Study 1 was to provide descriptive evidence of the role of participants' chronic relationship quality and the consequences of perceiving partner's disappointment. Therefore, we conducted a correlational analysis between participants' chronic relationship quality and our key dependent variables. A power analysis suggests that our sample size allows us to detect a correlation with r = 0.2 with 90% of power (two-tailed, alpha = .05).

Measures and Procedure

Overview. After obtaining consent, participants were given 30 seconds to think and write about a specific event in which their romantic partner was disappointed in them. We then assessed participants' immediate emotional responses to their partners' disappointment,

their construals of their partner's intentions, their motivation to change their behavior, and their chronic relationship quality.

Immediate Emotional Responses. We assessed participants' immediate emotional responses to their partners' expressions of disappointment with the following prompt: "*How did you immediately feel in response to your partner's expression of disappointment?*" Participants were provided with a total of 22 emotion terms. Participants indicated the extent to which they experienced each emotion using a scale ranging from *1* (*not at all*) to *7* (*extremely*). Items were then grouped into four emotion dimensions: dejected-related emotions (sad, dejected, upset, heartbroken, lonely, isolated; α = .897); negative self-directed emotions (ashamed, embarrassed, guilty, worthless, disappointed, foolish; α = .913); negative partner-directed emotions (angry, annoyed, frustrated, defensive; α = .850); and general positive emotions (amused, happy, joyful, related, satisfied, love; α = .919).

Construal of Partner's Intentions. Following the emotion measures, participants completed questions to assess how they construed the intentions underlying their partners' disappointment. To assess perceptions of partners' disappointment as justified, they answered the question, "*To what extent do you think your partner's expression of disappointment was justified*" using a 9-point Likert scale ranging from *1* (*extremely unjustified*) to *9* (*extremely justified*), with 5 (*neither justified nor unjustified*) as the mid-point. Participants were then asked, "*To what extent do you think your partner's expression of disappointment served the following purpose…*" Participants were presented with four statements to assess the construed purposes, which were identified in the previous study: "*To improve you or make you a better person in some way.*"; *'To improve the quality of your romantic relationship.*"; "*To be hurtful.*"; and "*There was no purpose.*" Responses were made on a 9-point Likert scale from 1 (*strongly disagree*) to 9 (*strongly agree*), with 5 (*neither agree nor disagree*) as the mid-point.

Relationship-Promoting Motivation. Participants reported their motivations to change their behavior in a manner that would ameliorate the original reason for the partner's disappointment. Specifically, participants were asked the following questions, "*Did your partner's expression of disappointment affect your motivation to change whatever you did that made your partner upset?*" and "*Did your partner's expression of disappointment lead to actual changes in your behavior?*" Again, participants indicated their responses using 9-point Likert scales from 1 (*strongly disagree*) to 9 (*strongly agree*), with 5 (*neither agree nor disagree*) as the mid-point.

Relationship Assessment Scale. Finally, participants completed the 7 items of the Relationship Assessment Scale (RAS; Hendrick, 1988; e.g., "*How well does your partner meet your needs?*"), using a 7-point scale, ranging from 1 to 7, with higher scores indicating greater relationship satisfaction. Participants' responses to the RAS were averaged to derive a measure of chronic relationship quality (M = 5.47; SD = 1.46; α = .943).

Results

We explored the role of participants' chronic relationship quality in response to perceiving partner's disappointment. We were particularly interested in examining whether people whose relationship was characterized by high relationship quality might report greater relationship-promoting motivations following perceiving partner's disappointment, in part because partner's disappointment is more likely to be construed in a positive light. We also examined whether relationship quality was related to the magnitude of individuals' immediate emotional responses. Because of the multiple correlational tests, we applied Bonferroni corrections by adjusting the alpha value to .004.

The Role of Chronic Relationship Quality on Perceiving Partner's Disappointment

Immediate Emotional Responses. We found that chronic relationship quality showed no statistically significant associations with immediate emotional experiences.

Specifically, chronic relationship quality was not significantly correlated with general positive emotions (r = .095, p = .162), dejected-related emotions (r = -.098, p = .151), negative self-oriented emotions (r = .099, p =.144), and negative partner-directed emotions (r = -.146, p =.031). This suggests that participants experience negative emotions in response to partners' disappointment, regardless of their chronic relationship quality.

Construal of Partners' Intentions. We found robust effects of chronic relationship quality on participants' construals of partners' intentions. Participants with high chronic relationship quality were more likely to perceive their partners' expressions of disappointment as justified (r = .302, p <.001) and to acknowledge the positive intentions behind their partners' expressions (r = .454, p <.001) and to be less likely construe their partners' disappointment expressions as intending to be hurtful (r = -.322, p <.001) or having no purpose (r = -.263, p <.001).

Relationship-Promoting Motivation. We also found robust effects of chronic relationship quality on participants' relationship-promoting motivation. Participants with high -quality relationships reported greater motivation to engage in relationship-promoting changes (r = .467, p < .001) and reported actual relationship-promoting changes in real life (r = .369, p < .001).

Mechanism Explaining the Role of Chronic Relationship Quality on Perceiving Partner's Disappointment.

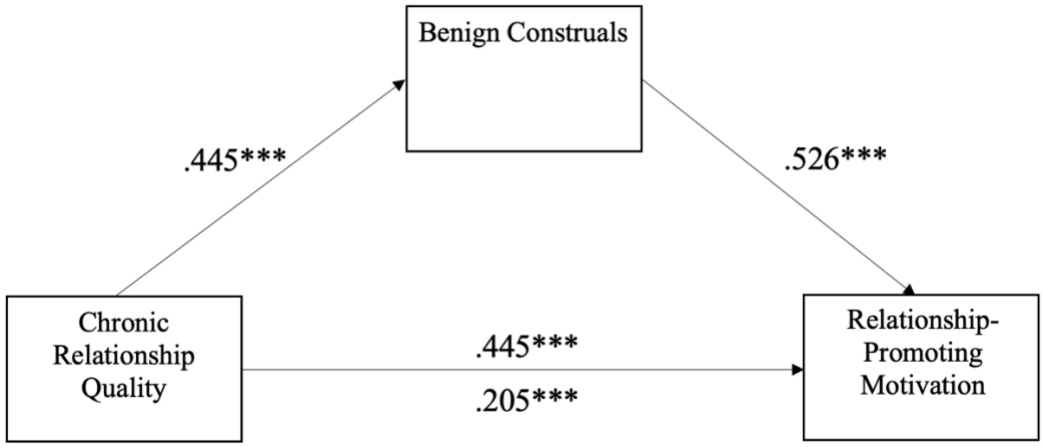
We explored the mediating role of benign construals in the link between perceiving partner's disappointment and subsequent relationship-promoting motivations. To do so, we focused on the between-person variability in chronic relationship quality and its correlation with relationship-promoting motivations in response to perceiving partner disappointment. If benign construals are key mediators, then chronically satisfied individuals' greater motivational effects in response to perceiving partner's disappointment should be mediated

by enhanced benign construals. To test this hypothesis about the mediating role of benign construals, we conducted an exploratory analysis using PROCESS modeling program (Hayes, 2012) Model 4. Specifically, we first computed a benign construal score (the mediator) by aggregating participants' responses on the perceived justification of partners' expressions, perceived positive purpose, and the reverse coding of participants' perceived negative purpose and no purpose (α = .744). Likewise, we computed a relationship-promoting motivation score (the outcome) by aggregating participants' self-reported relationship-promoting motivation and self-reported actual change (α = .895). Finally, we standardized all variables (i.e., benign construal, motivation, and chronic relationship quality).

We found a statistically significant indirect effect of chronic relationship quality on relationship-promoting motivation through benign construals (b = .234, 95% CI [0.15, 0.34]), consistent with our prediction that participants' benign construals of partners' intentions significantly explain the enhanced motivational effect of perceiving disappointment among those who with high chronic relationship quality (Figure 3.1).

Figure 3.1

Mediation Analyses for the Effect of Chronic Relationship Quality on Relationship-Promoting Motivation through Benign Construals (Study 1)



Note. Mediation analyses with standardized regression coefficients illustrating the effect of chronic relationship quality on an aggregation of motivation and reported actual relationship-promoting changes via benign construals. *$p < .05$, **$p < .01$, ***$p < .001$.

Discussion

Study 1 provided novel evidence of the role of participants' chronic relationship quality on the effect of perceiving partner's disappointment. We found that participants' chronic relationship quality did not predict their immediate emotional responses toward partners' disappointment. However, those with high-quality relationships were more likely to generate benign construals of partners' intentions and report greater relationship-promoting motivation. The motivational effects of perceiving partners' disappointment in individuals with high relationship quality could be explained by their benign construals of partners' intentions. Overall, the results provided initial support for the more pronounced relationship-promoting effects of perceiving partners' disappointment in married individuals with high relationship quality.

Study 2

Study 1 provided initial, descriptive evidence that individuals whose romantic relationship was characterized by high chronic relationship quality reported greater benign construals of partner's intentions and higher levels of relationship-promoting motivation after perceiving partner's disappointment. In addition, the pronounced relationship-promoting effect of perceiving partner's disappointment can be explained by the greater benign construals generated by people with high chronic relationship quality. In Study 2, we aimed to provide causal evidence to the previously observed effect of participants' chronic relationship quality and examine whether the observed effect generalizes to other negative emotions, such as anger[12].

Past work suggests that individuals with high chronic relationship quality are generally motivated to maintain the quality of their relationships (Leary, 2005; McNulty, O'Mara, & Karney, 2008). Threats to relationship stability, such as expressions of negative emotions, may be enough to motivate highly satisfied individuals to engage in relationship-promoting changes (Gable & Gosnell, 2013; Gable & Impett, 2012). To examine whether the effect of chronic relationship quality on perceiving partner's disappointment generalizes to other negative emotions, such as anger, in Study 2, we compared partner's expression of disappointment to anger, a commonly studied negative emotion in romantic relationships (Baker, McNulty, & Overall, 2014; McNulty & Russell, 2010).

In addition, we aimed to continue to examine the mechanism through which individuals with high chronic relationship quality experience enhanced relationship-promoting motivations after perceiving partner's disappointment. Similar to Study 2, we predicted that individuals with high chronic relationship quality reported relationship-promoting motivation via generating more benign construals of partners' intentions.

[12] We also examined the role of chronic relationship quality using a controlled disappointment vs. anger event. We observed the same pattern of results as in Study 2 using control disappointment and anger event. Please see Supplemental Materials for details of the study.

However, because the current study also includes a between-subject manipulation of condition (disappointment vs. anger), we examined the extent to which this mediation pattern was more pronounced following perceiving partner's disappointment (vs. anger). This study was preregistered on Open Science Framework https://osf.io/86ptx?view_only=15137576188b422ca5408e6ce70c21f9.

Method

The present study is part of a larger project investigating the function of perceiving disappointment in romantic relationships. Here, we summarize information relevant to the current work.

Participants

We recruited 384 married participants ((240 females; M_{age} = 41.12 years; $M_{marital\ length}$ = 13.07 years; 87.8% straight, 7.8% homosexual, 4.2% bisexual, 0.3% prefer not to answer) via Amazon's Mechanical. Again, participants who failed attention check or did not complete the open-ended manipulation checks were automatically excluded from the study. In addition, one participant was excluded for failing to complete at least 80% of the survey. An *a priori* power analysis using a simulation indicated that with an N = 380, we would have 89% statistical power to detect a medium (Cohen's q = .3; Rosenthal & Rosnow, 2008, see Table 12.3) interaction between condition (disappointment vs. anger) and participants' chronic relationship quality using multiple linear regression (assuming alpha = .05, two-tailed test).

Measures and Procedure

Participants were randomly assigned to one of the two conditions. In the disappointment condition, participants were asked to reflect on a specific, self-generated event in which their romantic partner was disappointed in them. Participants in the anger condition were asked to reflect on a specific event in which their romantic partner was angry at them. In both conditions, participants were given the instruction to "*Try to recall an event*

that you remember vividly. Fully imagine your interaction with your partner – what did your partner say and do? How did you feel in response?" Participants were given 30 seconds to think about the specific event. Following the manipulation, as in Study 1, participants completed measures to assess immediate emotions after the perceiving their partner's disappointment, momentary relationship quality, construals of partner's intentions, and relationship-promoting motivation.

Results

To look at the effect of participants' chronic relationship quality on the consequences of perceiving partner's disappointment (vs. anger), we conducted a linear regression with the mean-centered chronic relationship quality and examined its interaction with condition (disappointment vs. anger) on the key dependent variables. Then, we conducted following analogous analyses (with Bonferroni correction adjusting the alpha value to .003) to examine correlational relationships between participants' chronic relationship quality and the key dependent variables in each disappointment and anger condition. Finally, we examined the moderating effect of condition (disappointment vs. anger) on the mechanism in which the enhanced relationship-promoting effect in individuals with high chronic relationship quality was explained via benign construals. To do so, we adapted PROCESS modeling program (Hayes, 2012) Model 7, in which condition (disappointment vs. anger) moderates the link between an individual's chronic relationship quality and benign construals.

The Role of Chronic Relationship Quality on Perceiving Partner's Disappointment (vs. Anger)

Immediate Emotional Responses. We found no statistically significant interaction between chronic relationship quality and condition (disappointment vs. anger) on participants' immediate emotional responses (*p*s > .205). Specifically, we found no statistically significant moderation effect of participants' chronic relationship quality on the

link between perceiving partner's disappointment (vs. anger) and general positive emotion (*b* = -.10, *p* = .298, Adjusted R^2 = .001, 95% CI [-0.27, 0.08]), dejected-related emotions (*b* = -.01, *p* = .949, Adjusted R^2 = .063, 95% CI [-0.30, 0.28]), negative self-oriented emotions (*b* =.22, *p* = .205, Adjusted R^2 = .033, 95% CI [-0.12, 0.56]), and negative partner-directed emotions (*b* = -.06, *p* = .676, Adjusted R^2 = .043, 95% CI [-0.36, 0.23]).

Following analogous analyses revealed that individuals with high chronic relationship quality tend to report lower levels of dejected-related emotions after perceiving partner's anger (*r* = -.271, *p* <.001) and disappointment (*r* = -.244, *p* <.001). We did not find significant correlational relationships between participants' chronic relationship quality and other emotional dimensions.

Construal of Partners' Intentions. We found no statistically significant interaction between chronic relationship quality and condition (disappointment vs. anger) on participants' benign construals of partner's intentions. Specifically, we found no statistically significant moderation effect of participants' chronic relationship quality on the perceived justification of partner's expression (*b* = .07, *p* = .894, Adjusted R^2 = .149, 95% CI [-1.00, 1.15]), perceived positive purpose (*b* = -.14, *p* = .794, Adjusted R^2 = .141, 95% CI [-1.17, 0.89]), perceived negative purpose (*b* =-.42, *p* = .430, Adjusted R^2 = .153, 95% CI [-1.47, 0.62]), and no purpose (*b* = -.21, *p* = .727, Adjusted R^2 = .049, 95% CI [-1.39, 0.97]).

However, following analogous analyses revealed a significant correlational relationship between participants' chronic relationship quality and their benign construals of partner's intentions in both disappointment and anger conditions. Participants with high chronic relationship quality reported greater perceived justification of both partner's disappointment and anger (*r*s > .319, *p*s <.001). In addition, participants with high chronic relationship quality were more likely to report partner's expression served a positive purpose (*r*s > .303, *p*s <.001), and were less likely to perceive partner's expressions were meant to be

hurtful (*r*s < -.359, *p*s <.001).

Relationship-Promoting Motivation. Finally, there was no statistically significant interaction between chronic relationship quality and condition (disappointment vs. anger) on participants' relationship-promoting motivation (*b* = -.02, *p* = .590, Adjusted R^2 = .221, 95% CI [-0.93, 0.53]), and self-reported actual changes (*b* = .02, *p* = .945 Adjusted R^2 = .175, 95% CI [-0.66, 0.71]).

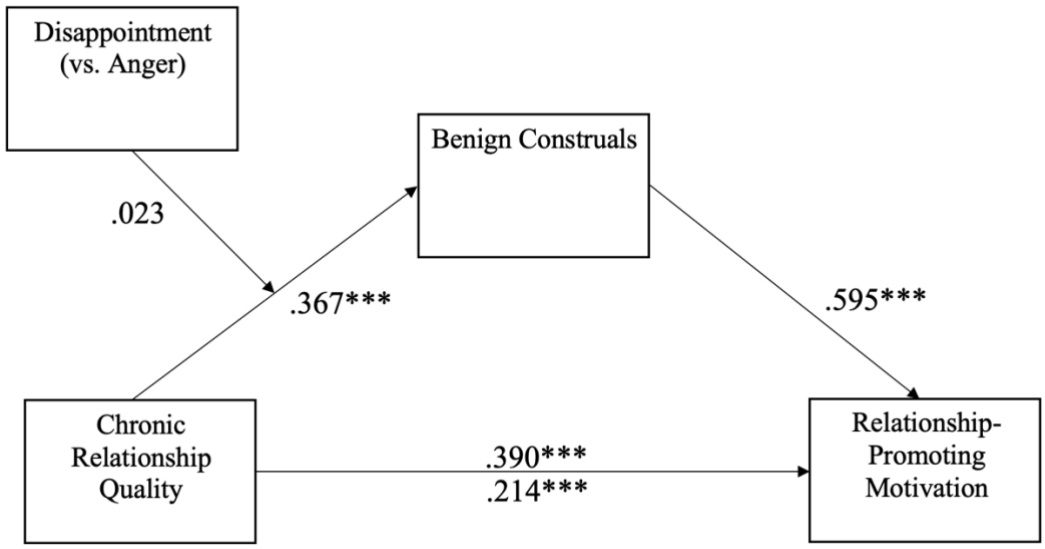
But again, following analogous analyses revealed a significant correlational relationship between participants' chronic relationship quality and relationship-promoting motivation (*r*s > .398, *p*s <.001) and self-reported actual changes (*r*s > .381, *p*s <.001).

Mechanism Explaining the Role of Chronic Relationship Quality on Perceiving Partner's Disappointment vs. Anger.

To test the mechanism explaining the effect of participants' chronic relationship quality on the downstream consequences of perceiving partner's disappointment (vs. anger), we employed PROCESS modeling program (Hayes, 2012) Model 7 to test a moderated mediation model with chronic relationship quality as the predictor variable, relationship-promoting motivation as the outcome variable, benign construals as the mediator, and condition (i.e., disappointment vs. anger) as the moderator (Figure 3.2). We found significant indirect mediation effects on the link between chronic relationship quality and relationship-promoting motivation through benign construals in both anger (*b* = .218, 95% CI [0.15, 0.29]) and disappointment condition (*b* = .232, 95% CI [0.15, 0.32]). However, we did not find a significant moderation effect of condition (*b* = .023, *t* = .250, *p* = .803, 95% CI [-0.16, 0.21]), and the moderated mediation was not supported (*b* = .014, 95% CI [-0.09, 0.11]).

Figure 3.2

Moderated Mediation Analyses for the Effect of Chronic Relationship Quality on Relationship-Promoting Motivation through Benign Construals in Disappointment vs. Anger Conditions (Study 2)



Note. Moderated mediation analyses with standardized regression coefficients illustrating the effect of chronic relationship quality on an aggregation of motivation and reported actual relationship-promoting changes via benign construals in disappointment (vs. anger) condition. *$p < .05$, **$p < .01$, ***$p < .001$.

Discussion

In Study 2, we examined the role of participants' chronic relationship quality on the downstream consequences of perceiving a romantic partner's disappointment (vs. anger). We found that people with high chronic relationship quality generated benign construals of partner's negative emotional expressions and reported greater relationship-promoting motivation. In addition, consistent with Study 2, we found that the relationship-promoting tendencies observed in those with high-quality relationships were explained via benign construals of partner's intentions. However, we did not observe statistically significant

interactions on the effect of chronic relationship quality between perceiving partner's disappointment and anger. We found that participants' chronic relationship quality positively predicted benign construals and relationship-promoting motivations following both partner's disappointment and anger. Likewise, we did not observe a significant moderating effect of partner's disappointment (vs. anger) on the mediation model. The results may indicate that participants' chronic relationship quality generally buffered negative emotional experiences in close relationships. We will further discuss the results in the general discussion section.

Study 3

So far, Studies 1 and 2 provided evidence that married participants with high chronic relationship quality were more likely to report benign construals of partner's intentions and enhanced relationship-promoting motivations following perceiving partner's disappointment. Study 2 suggests that such an effect of chronic relationship quality may generalize to other negative emotions, such as anger. Participants with high chronic relationship quality reported greater benign construals and enhanced relationship-promoting motivation after perceiving both partner's disappointment and anger.

However, one may still wonder whether the effect of chronic relationship quality only applies to negative emotional expressions, or it generalizes to all interactions in romantic relationships. That is, it may be possible that for highly satisfied individuals, the physical or mental presence of romantic partners is enough to elicit a sense of assurance and affirmation that leads to positive regulations in behaviors and motivation to maintain the relationships (Murray, Holmes, & Collins, 2006; Selcuk, Zayas, & Hazan, 2010). If this is the case, then simply reflecting on partner's expressions in an ordinary interaction should elicit relationship-promoting motivations in individuals with high chronic relationship quality.

To test whether the observed effect of chronic relationship quality generalizes to all interactions in romantic relationships, in Study 3, we asked participants to reflect on a past

event in which they perceived partner's disappointment or reflect on an ordinary interaction with their romantic partner. Although ordinary interaction romantic partner may generally be positive (Sbarra & Hazan, 2008; Selcuk, et al., 2010), especially for those who are satisfied with their relationship, we aimed to compare the effect of chronic relationship quality on the consequences of perceiving disappointment, compared to how people typically think about their partner.

Method

Again, the present study is part of a larger project investigating the function of perceiving disappointment in close relationships. Below, we summarize information relevant to the current work.

Participants

Three hundred and eighty-four participants who were married for an average of 16 years (241 females; M_{age} = 43.54 years; 89% straight, 6% homosexual, 4% bisexual, 1% prefer not to answer) were recruited via Amazon's Mechanical Turk. Participants who failed attention check or did not complete the open-ended manipulation checks were automatically excluded from the study. We excluded three participants for failing to complete at least 80% of the survey.

Measures and Procedure

Participants were randomly assigned to the one of two conditions (disappointment vs. ordinary event). Participants in the disappointment condition received similar instructions as in Studies 1 and 2: "*We would like you to think of a specific past event in which your romantic partner expressed disappointment in you. Try to recall an event that you remember vividly. Fully imagine your interaction with your partner – what did your partner say and do? How did you feel in response?*" Participants in the ordinary event condition received the following instructions: "*We would like you to think of a specific past event in which your*

partner started a neutral conversation with you. Try to recall an event that you remember vividly. Fully imagine your interaction with your partner – what did your partner say and do? How did you feel in response?" Participants in both conditions were given 30 seconds to bring to mind the specific event.

Results

We conducted the same analyses as in Study 2, but instead of partner's anger, we examined the role of chronic relationship quality on perceiving partners' disappointment vs. an ordinary interaction.

The Role of Chronic Relationship Quality on Perceiving Partner's Disappointment (vs. Ordinary Interaction)

Immediate Emotional Responses. We found statistically significant interactions between chronic relationship quality and condition (disappointment vs. ordinary interaction) in general positive emotion (b = -.26, p = .025, Adjusted R^2 = .080, 95% CI [-0.49, -0.03]). Following analogous analyses revealed that individuals with high chronic relationship quality tend to report greater positive emotions following an ordinary interaction with romantic partners (r =.188, p = .010)[13], whereas there was no statistically significant correlational relationship in disappointment condition (r = -.020, p = .782).

In addition, we also found statistically significant chronic relationship quality by condition interaction for the negative self-oriented emotions (b =.28, p = .046, Adjusted R^2 = .171, 95% CI [0.01, 0.55]). Following analogous analyses revealed that individuals with high chronic relationship quality tend to report lower levels of negative self-oriented emotions following an ordinary interaction with romantic partners (r =.-.268, p < .001), whereas there was no statistically significant correlational relationship in disappointment condition (r = -.023, p = .756). We did not find significant interactions in other emotional dimensions.

[13] If adjusted by Bonferroni correction, this correlation will no longer be statistically significant.

Construal of Partners' Intentions. We found a statistically significant interaction between chronic relationship quality and condition (disappointment vs. ordinary interaction) in predicting perceived justification of partner's intentions (b = 0.95, $t(375)$ = 1.99, p = .047, 95% CI [0.01, 1.88], Adjusted R^2 = .118). Following analogous analyses suggested that participants with high chronic relationship quality were more likely to perceive partners' disappointment as justified (r = .386, p < .001), more so than the ordinary interaction (r = .265, p < .001).

We also found statistically significant interaction in predicting the perceived negative purpose of romantic partners (i.e., be hurtful; b = -1.48, $t(376)$ = -3.48, p = .001, 95% CI [-2.32, -0.65]). Following analogous analysis revealed that participants with high chronic relationship quality were less likely to view the ordinary interaction as hurtful (r = -.315, p < .001). But importantly, participants with high chronic relationship quality were even less so to perceive partner's expressions of disappointment as hurtful (r = -.526, p < .001).

Relationship-Promoting Motivation. We found no statistically significant interaction between chronic relationship quality and condition (disappointment vs. ordinary) for participants' motivation to change, b = .35, $t(372)$ = 1.15, p = .250, 95% CI [-0.25, 0.95], Adjusted R^2 = .227. However, we found significant interaction for participants' self-reported behavioral changes in real life (b = .66, $t(373)$ = 2.21, p = .027, 95% CI [0.07, 1.24], Adjusted R^2 = .213). Following analogous analysis revealed that participants with high chronic relationship quality were more likely to report positive, relationship-promoting behavioral changes after interacting with their romantic partners (r = .386, p < .001). Importantly, participants with high chronic relationship quality were even more likely to report relationship-promoting changes after perceiving partner's disappointment (r = .498, p < .001).

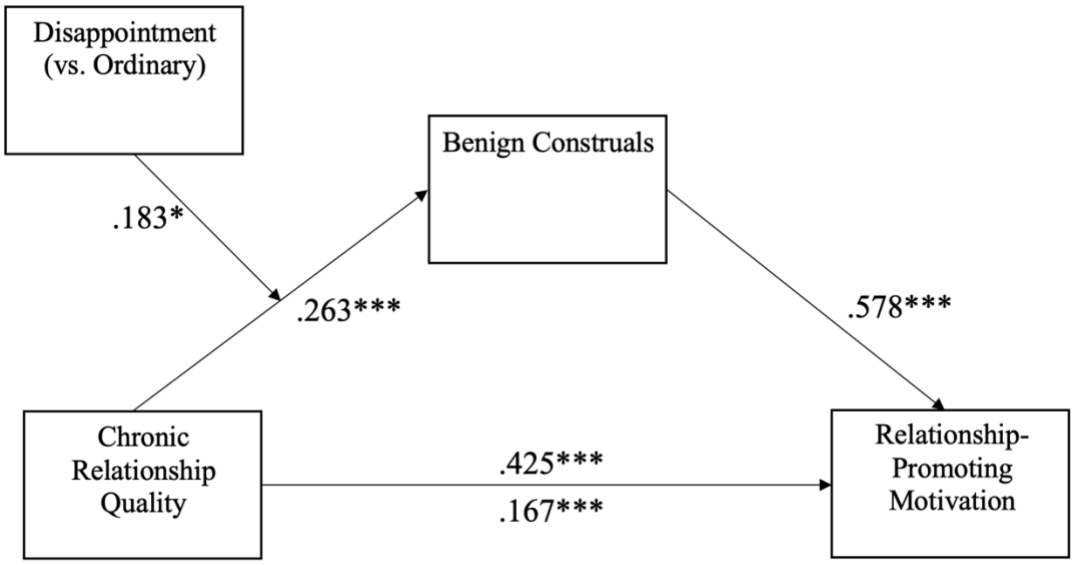
Mechanism Explaining the Role of Chronic Relationship Quality on Perceiving Partner's

Disappointment vs. Ordinary Interaction.

Finally, we continued to examine the mechanism through which an individual's chronic relationship quality influences the consequences of perceiving partner's disappointment (vs. an ordinary interaction; Figure 3.3). Again, we employed PROCESS modeling program (Hayes, 2012) Model 7. We found statistically significant indirect mediation effects of chronic relationship quality on relationship-promoting motivation through benign construals in both the ordinary event (b = .152, 95% CI [0.10, 0.21]) and disappointment condition (b = .258, 95% CI [0.20, 0.33]). Importantly, we found that perceiving partners' disappointment (vs. ordinary event) significantly moderated the effects of benign construals (b = .183, t = 2.483, p = .014, 95% CI [0.04, 0.33]), indicating that individuals characterized by high chronic relationship quality generated greater benign construals following partners' disappointment, compared to an ordinary interaction with romantic partners. In turn, the moderated mediation model was supported (b = .106, 95% CI [0.04, 0.18]).

Figure 3.3

Moderated Mediation Analyses for the Effect of Chronic Relationship Quality on Relationship-Promoting Motivation through Benign Construals in Disappointment vs. Ordinary Conditions (Study 3)



Note. Moderated mediation analyses with standardized regression coefficients illustrate the effect of chronic relationship quality on an aggregation of motivation and reported actual relationship-promoting changes via benign construals in disappointment (vs. ordinary) conditions. *$p < .05$, **$p < .01$, ***$p < .001$.

Discussion

Study 3 confirms that chronic relationship quality is associated with benign construals of partner's expressions of disappointment and subsequent relationship-promoting motivation. By comparing disappointment to an ordinary interaction with romantic partners, we found that the beneficial effect of chronic relationship quality does not simply arise from the positive affirmation elicited by generally reflecting on one's relationship. Finally, the results of the moderated mediation suggest that the tendency to generate benign construals and enhanced relationship-promoting motivations among individuals with high chronic relationship quality was even more pronounced following disappointment (vs. ordinary

interaction).

The strength of Studies 1-3 was that we asked participants to reflect on a self-generated event in which they perceived partner's disappointment (vs. anger and ordinary interaction). With this approach, we capitalized on naturally occurring variability in participants' experience with partner's disappointment and its downstream consequences on participants' benign construals and relationship-promoting motivation. However, we also lack experimental control on the differences in the severity and frequency of the disappointment expressions participants brought into mind. To address this issue, in Study 4, we asked participants to reflect on a controlled disappointment vs. an ordinary event.

Study 4

So far, Studies 1–3 have provided ample evidence that chronic relationship quality is associated with benign construal of partner's expressions of disappointment and, subsequently, motivation to engage in relationship-promoting changes. However, in the previous studies, participants were asked to recall an actual, self-generated past event in which their partner expressed disappointment in them (vs. anger/ordinary interaction). Although this approach guarantees the vividness and realism of the manipulation, it lacks the experimental control of the severity of the event participants reflected and thus may confound the observed results.

Therefore, to address this issue, in Study 4, we introduced a manipulation in which participants were instructed to imagine a controlled hypothetical scenario in which romantic partners express disappointment in them vs. express that they want to engage in an ordinary activity with them. Specifically, participants in disappointment condition were instructed to imagine an event in which "*my partner says he/she is disappointed because I do not spend time with him/her*", whereas participants in the ordinary interaction condition were instructed to imagine an event in which "*my partner says he/she wants to watch television with me.*" We

conducted a pilot study to test the frequency and validity of these scenarios (please see supplemental material), and participants rated these two events as the most frequent, most realistic, and easiest to imagine. This study was preregistered on Open Science Framework, https://osf.io/fmzvq/?view_only=3e42abfee68544d79e85a4cb759a8325.

Method

Participants. Three hundred and eighty-seven participants married for an average of 7.01 years (151 females; M_{age} = 31.98 years; 57% straight, 10% homosexual, 30% bisexual, 3% prefer not to answer) were recruited via Amazon's Mechanical Turk to complete a study titled *Interactions in Close Relationship Study*. Participants who failed attention check or did not complete the open-ended manipulation checks were automatically excluded from the study.

Measures and Procedure. We used the same measurements as in the previous study with one exception. Participants in the disappointment condition were asked to imagine a controlled disappointment event in which "*My partner says he/she is disappointed because I do not spend time with him/her***.**" Participants in the ordinary interaction condition were asked to imagine "*My partner says he/she wants to watch television with me.*"

Results

The Role of Chronic Relationship Quality on Perceiving Partner's Disappointment (vs. Ordinary Interaction)

Immediate Emotional Responses. We found a statistically significant interaction between chronic relationship quality and condition (disappointment vs. ordinary interaction) in general positive emotion (b = -.48, p = .003, Adjusted R^2 = .226, 95% CI [-0.79, -0.16]). Following analogous analyses revealed that individuals with high chronic relationship quality tend to report greater positive emotions following the controlled ordinary interaction with romantic partners (r =.522, p < .001), whereas there was no statistically significant

correlational relationship in disappointment condition (r =.112, p = .122). We did not find significant interactions in other emotional dimensions.

Construal of Partners' Intentions. We found a statistically significant interaction between chronic relationship quality and condition (disappointment vs. ordinary interaction) in predicting perceived justification of partner's intentions (b = -0.95, p = .014, Adjusted R^2 = .180, 95% CI [-1.70, -0.20],). Following analogous analyses suggested that participants with high chronic relationship quality were more likely to perceive partners' disappointment as justified (r = .238, p < .001). We found similar but more pronounced pattern for the controlled ordinary interaction (r = .528, p < .001). We will discuss the results further in discussion.

Relationship-Promoting Motivation. We found a marginally significant interaction between chronic relationship quality and condition (disappointment vs. ordinary) in predicting participants' relationship-promoting motivation, b = .65, p = .066, 95% CI [-0.04, 1.34], Adjusted R^2 = .172). Following analogous analysis revealed that participants with high chronic relationship quality were more motivated to engage in relationship-promoting changes after interacting with their romantic partners (r = .360, p < .001). Importantly, participants with high chronic relationship quality reported more pronounced relationship-promoting motivation after perceiving partner's disappointment (r = .464, p < .001).

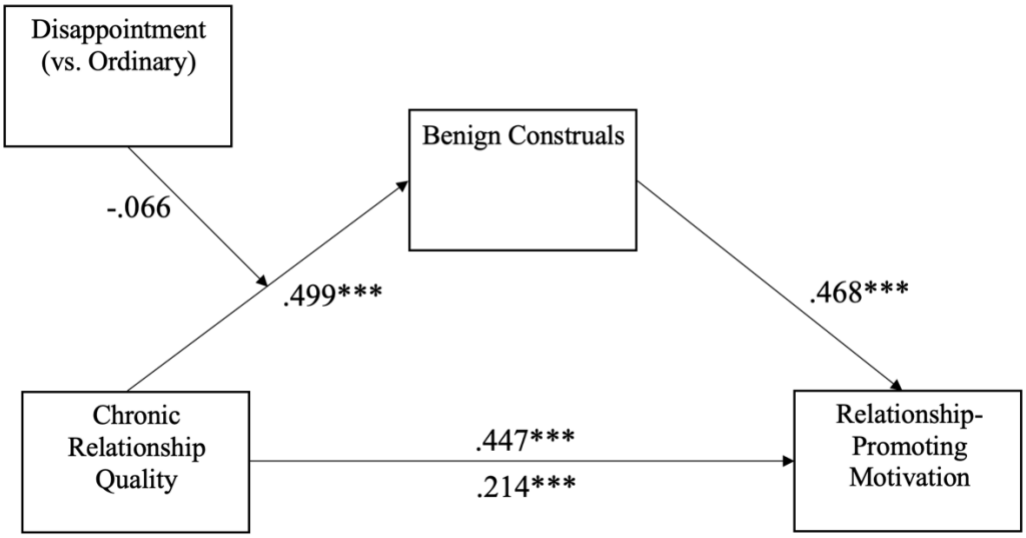
Mechanism Explaining the Role of Chronic Relationship Quality on Perceiving Partner's Disappointment vs. Ordinary Interaction.

Again, we conducted a moderated mediation model with chronic relationship quality as the predictor variable, relationship-promoting motivation as the outcome variable, benign construals as the mediator, and condition (i.e., disappointment vs. ordinary) as the moderator using PROCESS modeling program (Hayes, 2012) Model 7 (Figure 3.4). Same as in Study 3, we found significant indirect effects through benign construals in both ordinary (b = .234,

95% CI [0.15, 0.32]) and disappointment conditions (*b* = .203, 95% CI [0.12, 0.29]). However, inconsistent with Study 3, there was no significant moderation effect of condition (*b* = -.066, *t* = -.684, *p* = .494, 95% CI [-0.25, 0.12]), and the moderated mediation was not supported (*b* = -.031, 95% CI [-0.15, 0.08]).

Figure 3.4

Moderated Mediation Analyses for the Effect of Chronic Relationship Quality on Relationship-Promoting Motivation through Benign Construals in Controlled Disappointment vs. Ordinary Conditions (Study 4)



Note. Moderated mediation analyses with standardized regression coefficients illustrating the effect of chronic relationship quality on an aggregation of motivation and reported actual relationship-promoting changes via benign construals in controlled disappointment (vs. ordinary) condition. *$p < .05$, **$p < .01$, ***$p < .001$.

Discussion

Overall, Study 4 largely replicated the pattern we observed in Study 3 with controlled disappointment vs. ordinary events. Specifically, participants characterized by high chronic relationship quality were more likely to perceive partner's disappointment as justified and reported greater relationship-promoting motivation. However, this time, we did not observe the significant moderation effect of disappointment (vs. ordinary interaction) condition in the moderated mediation model. We predicted that this is because the controlled ordinary interaction "My partner says he/she wants to watch television with me" did not reflect a mundane, neutral event but a positive one. Therefore, participants generated benign construals of an initially positive event.

General Discussion

Romantic relationships can buffer against negative feelings in daily lives and boost our mental and physical well-being (Sbarra & Hazan, 2008; Selcuk, et al., 2012). But the sobering reality is that romantic relationships are also the primary source in which we experience and perceive negative emotions. Although past work has examined how people perceive different negative emotions in romantic relationships, extant research has yet to examine the function of chronic relationship quality on the downstream consequences of perceiving diverse negative emotional expressions. In the current research, we investigated the role of chronic relationship quality in perceiving partner's disappointment, a common but understudied negative emotion in romantic relationships.

In four studies, using various comparison conditions (anger and ordinary interaction) and different methods of eliciting an event in which people perceive partner's disappointment (self-generated past event and hypothetical, controlled event), we found robust effects of chronic relationship quality on benign construals of partner's intentions, and on participants' relationship-promoting motivations following perceiving partner's disappointment. Follow-up

mediation analysis reveals a mechanism for the function of chronic relationship quality in which individuals with high-quality relationships generate benign construals of partner's intentions, leading to subsequent relationship-promoting motivations.

Implication on Chronic Relationship Quality

Prior work on relationship quality suggests that high chronic relationship quality is associated with positive attribution to negative interactions in romantic relationships (Bloch et al., 2014; English et al., 2013). Specifically, people in high-quality relationships tend to adapt benign regulation strategies (Levenson et al., 2014), in which highly satisfied individuals are less likely to construe their partner's behaviors as ill-intentioned (Karney et al., 1994; Rusbult et al., 1986), and are more likely to view partner's behaviors in a positive light (Griffin & Buehler, 1993; Murray & Holmes, 1994).

In light of the previous findings, the current work focused on the construct of benign construals of partner's intentions when examining the function of chronic relationship quality on the downstream consequences of perceiving partner's disappointment. In support of the previous findings, we found robust evidence that high chronic relationship quality is associated with greater benign construals of partner's intentions (please see Table 3.1). Consistently across four studies, we found significant positive correlations between participants' chronic relationship quality and perceived justification of partner's intentions (rs > .238, ps < .001) and positive purpose (e.g., to improve the relationship; rs > .303, ps < .001). Across Studies 1 – 3, we found significant negative correlations between chronic relationship quality and perceived negative purpose (i.e., to be hurtful; rs < -.322, ps < .001) and no purpose (rs < -.189, ps < .001).[14]

[14] In Study 4, we did not observe statistically significant negative correlations between chronic relationship quality and perceived negative purpose (r = -.088, p = .222), and no purpose (r = -.116, p = .107). We believed that this could be explained by the controlled disappointment hypothetical event. The event conveys positive intentions (i.e., partners want to spend more time together). It would be hard for participants to generate negative construals of a disappointment event that is already positive in nature.

Table 3.1

Correlations Between Chronic Relationship Quality and Responses after Perceiving Partner's Disappointment

	Study 1	Study 2	Study 3	Study 4
	Chronic Relationship Quality			
General Positive Emotion	.095	-.008	-.020	.112
Dejected Related Emotion	-.098	-.244**	-.211**	-.082
Negative Self-Oriented Emotion	.099	.046	-.004	.064
Negative Partner-Directed Emotion	-.146	-.213**	-.249**	-.251**
Justified	.302**	.319**	.386**	.238**
Positive Purpose	.454**	.303**	.385**	.503**
Negative Purpose	-.322**	-.385**	-.526**	-.088
No Purpose	-.263**	-.189**	-.260**	-.116
Motivation	.467**	.398**	.486**	.464**
Actual Change	.369**	.381**	.498**	.401**

Note. All correlations were adjusted by Bonferroni corrections.

Importantly, consistently across four studies, we observed mediations in which high chronic relationship quality is associated with benign construals of partner's intentions, which in turn, predicts participants' relationship-promoting motivations following perceiving partner's disappointment. The results we observed in the current research supported prior findings that an individual's love, commitment, and attachment to their partner buffer against negativities in romantic relationships via benign construals of partner's intentions (Karney et al., 1994; Selcuk et al., 2010).

Generalization to Other Negative Emotions

In Study 3 and Study 4, we observed significant interactions between chronic relationship quality and condition (i.e., disappointment vs. ordinary interaction) in participants' benign construals and relationship-promoting motivation, indicating that chronic relationship quality has a more significant positive influence on perceiving partner's

disappointment, compared to ordinary interactions in romantic relationships. However, in Study 2, we did not observe interactions between disappointment vs. anger expression and chronic relationship quality. That is, we found that participants' chronic relationship quality positively predicted benign construals and relationship-promoting motivations following both partner's disappointment and anger, and there was no statistically significant difference in the effect of chronic relationship quality between disappointment and anger conditions. In addition, the moderated mediation analysis revealed a significant indirect effect between chronic relationship quality and relationship-promoting motivation via benign construal in both disappointment and anger conditions.

In light of the observed pattern, one might wonder, is the effect of chronic relationship quality unique to certain kinds of negative emotions, or it applies to all negative emotional interactions in romantic relationships? Our current research may provide evidence leaning toward the latter. Chronic relationship quality seems to have a buffering effect that boosts people's relationship-promoting motivations and mitigates the negative impacts of perceiving partner's disappointment and anger. We believe that the buffering effect does not occur at the immediate affective reactions toward the partner's negative emotional expressions. Specifically, our work suggests that partner's negative emotional expressions elicit immediate negative emotional responses. Across four studies, we found no significant correlations between chronic relationship quality and negative self-oriented emotions (e.g., shame) in both disappointment and anger conditions, suggesting that people feel negative after perceiving partner's disappointment and anger, regardless of their chronic relationship quality.

Instead, the buffering may occur during the cognitive processes of generating construals of the partner's intentions. Ample work indicates that high-quality relationships are characterized by positive attributions of partner's intentions (Griffin & Buehler, 1993; Griffin

& Ross, 1991; Murray et al., 2003, 2006; Zayas et al., 2017). In the face of negative interactions in romantic relationships, chronically satisfied people have no trouble generating reasons that justify their partners and attributing positive intentions to partner's behaviors. The mechanism for benign construals may be true to high-quality relationships in general. And if so, the beneficial buffering effect of chronic relationship quality may apply to all negative emotional interactions in romantic relationships, including disappointment and anger. Still, this is only speculation, and future work is needed to examine the function of chronic relationship quality on diverse negative emotional experiences, such as sadness, jealousy, frustration, and annoyance.

Future Directions

The current work looks at the function of chronic relationship quality on perceiving partner's disappointment. We found that chronic relationship quality predicts greater benign construals of partner's intentions and motivations to engage in relationship-promoting changes. In order to activate an instance of partner's disappointment (vs. anger and ordinary interaction), we used memory recall (Studies 1–3) and hypothetical scenarios (Study 4). The memory recall serves to boost the realism and vividness of partner's expressions, and the hypothetical scenario serves as a complement that gives us more experimental control over the manipulation. However, as we can see in Study 4, although people rated the ordinary interaction "*My partner says he/she wants to watch television with me*" as frequent, realistic, and easy to imagine, the event was viewed as highly positive and elicited positive emotional responses. Therefore, in Study 4, we did not observe a significant moderated mediation effect between disappointment and ordinary interaction conditions. Future work needs to adapt a scenario reflecting an ordinary, neutral interaction in romantic relationships.

In addition, an interesting question for future studies is to what extent would chronic relationship quality buffer the negative consequences of negative emotional expressions from

romantic partners? One factor that may influence the function of chronic relationship quality is the frequency of negative emotional expressions. The current work only focuses on the effect of chronic relationship quality on one incident of perceiving partner's disappointment. However, when negative emotions are frequently experienced and perceived, how do people with different levels of chronic relationship quality perceive partner's frequent expressions of negative emotions? Another factor that may influence the function of chronic relationship quality is the intensity of negative emotional expressions. Future studies can examine how individual differences in chronic relationship quality function on perceiving partner's negative emotions in high intensity. Finally, as mentioned before, future work is needed to examine the role of chronic relationship quality on diverse negative emotions, such as sadness, jealousy, frustration, and annoyance.

Concluding Remarks

Overall, the current work delineates the role of chronic relationship quality in perceiving partner's disappointment. We found that compared to an ordinary interaction in romantic relationships, people in high-quality relationships construe partner's disappointment more positively and are motivated to engage in relationship-promoting changes. However, we observe a similar pattern in perceiving partner's anger, indicating that the beneficial effect of chronic relationship quality may apply to other negative emotions in romantic relationships.

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CHAPTER 5

Conclusion and Future Directions

Across three streams of research, the present dissertation examines the function of disappointment in romantic relationships. Chapter 2 examined the frequency of experiencing negative emotions in romantic relationships. Consistently, dating participants reported annoyance, sadness, disappointment, frustration, anger, and anxiety as the most frequently experienced negative emotions in their relationships. Chapter 2 further confirmed that disappointment is one of the most frequently experienced negative emotions in romantic relationships. In a self-report survey, dating participants free recalled and rated disappointment as a frequently experienced negative emotion, along with anger, sadness, and jealousy, arguably the most often studied negative emotions in relationship research. In addition, in a daily-diary study, participants spontaneously reported experiencing disappointment in their romantic relationships, even more frequently than experiencing anger. However, surprisingly, disappointment has received scant attention in relationship research.

Driven by this finding, Chapter 3 provided a first look at the function of disappointment in romantic relationships by examining the consequences of perceiving partner's disappointment. Using exploratory and experimental study designs, and diverse methodologies, Chapter 3 showed that although perceiving partner's disappointment elicited negative emotional responses, participants generated benign construals of partner's intentions, which in turn, enhanced relationship-promoting motivations. Perceiving partner's disappointment has a surprising beneficial effect in motivating individuals to engage in relationship-promoting changes. Finally, Chapter 4 investigated the role of individual differences in chronic relationship quality on the downstream consequences of perceiving partner's disappointment. People in chronically high-quality relationships were more likely to

benefit from the relationship-promoting effect of perceiving partner's disappointment. They were more likely to generate benign construals of partner's intentions, which further boosts their relationship-promoting motivations.

The current dissertation focused on the effect of perceiving disappointment in romantic relationships. However, the chapters illustrated only the tip of the iceberg on negative emotional experiences in romantic relationships. Although future directions for each project were briefly discussed in the respective chapters, this last section will provide a broader outline for future research.

Disappointment in Real-Life, Dyadic Interactions

Chapter 3 examines the function of perceiving disappointment in romantic relationships using memory recalls and hypothetical scenarios to activate an instance of partners' disappointment and self-report methodology to assess people's responses. Further evidence is needed to examine disappointment in real-time, face-to-face interactions. In one line of future research, we aim to 1) confirm the relationship-enhancing benefits of disappointment in real-time, dyadic interactions, and 2) explore the mechanisms for these benefits. To do so, inspired by past work on relationship conflicts (Overall, Fletcher, Simpson, & Fillo, 2015; Overall, Fletcher, Simpson, & Sibley, 2009; Overall, Girme, Lemay, & Hammond, 2014), we constructed a study design in which both partners of a marriage will perceive disappointment and anger in a real-time, face-to-face interaction.

Partners will first complete surveys to assess relationship quality. Then, in a session over Zoom, each partner will be assigned to a separate Zoom room in which they will write about a negative behavior that they want their partner to change. Then, each partner will be instructed to write a message to each other about the negative behaviors of the other partner. After writing the message, participants will report the severity of partner's negative behavior, partner's ability to change, their intentions in writing the message, their perceptions of

partner's receptivity to the message, and the extent to which they think their partner will change their behaviors.

Unbeknownst to the participants, the experimenters will randomly insert disappointment vs. anger expressions (e.g., *I am disappointed/angry that…*) at least two times into each partner's message to the other partner, and send the revised messages to the partners. After reading the messages from romantic partners, participants will complete a manipulation check to confirm the manipulation of disappointment/anger, and measures for immediate emotional responses, construal of partner's intentions, and relationship-promoting motivations.

Following reading the message, each partner will write a response to the other partner. After writing the response, participants will again report their construal of partner's intentions and relationship-promoting motivations. Then, each partner will read the response from the other partner, and report their perceptions of partner's receptivity to the message and the extent to which they think their partner will change their behaviors. Finally, the couples will engage in a five-minute video-recorded interaction in which they discuss each other's message about their negative behaviors. Independent coders blind to the study aims will code participants' reactions to partner's disappointment/anger expressions in the messages, such as the valence of emotions while discussing the message, and the receptivity of partner's expression. We predict that we will observe similar patterns of benign construals and relationship-promoting motivations of perceiving partner's disappointment (vs. anger) in real-life, dyadic interactions.

Eliciting Disappointment in Experimental Settings

It is always a challenge to elicit emotions in experimental settings while maintaining the validity and realism of the emotional experiences. For future research, we aim to develop a laboratory paradigm that methodologically advances research on understudied emotional

expression in close relationships. First, we aim to generate hypothetical scenarios that will naturally elicit feelings of disappointment. Past work on the intensity of disappointed feelings focuses on the following constructs: *likelihood, desirability,* and *perceived responsibility* (Van Dijk Van Der Plight, & Zeelenberg, 1999). Specifically, when failing to attain a desired outcome, the experience of disappointment is more intense when one believes that the likelihood of attaining the outcome is high, when the outcome is highly desirable, and when one perceives others (vs. themselves) are responsible. We established a set of hypothetical scenarios based on these findings by manipulating the likelihood of a reward (high vs. low) and responsibility (partner responsible vs. partner not responsible). We control the desirability of the reward.

Married participants will be provided with the following scenario. *You and your partner enter a couples' trivia contest with a chance to win $200. In this couples' trivia game, you and your partner both independently answer 50 questions about your relationship. For each question where you and your partner have a "match" (i.e., you both provide the same answer), you and your partner receive 1 point. The couple with the most matches will win the contest and the $200! You and your partner perform really well in the game.* To manipulate the likelihood of a reward, in the high likelihood condition, participants will read: *Out of 49 questions, you have 44 correct matches. There is only one other couple who has the same score as you. If you and your partner correctly answer the last question, you will win the $200 prize.* While participants in the low likelihood condition will read: *You and your partner are performing really well in the game. Of the first 49 questions, you have 42 correct matches. But another couple already has a maximum score of 44. Although you have one more opportunity to match and win an additional point, you know that even if you and your partner provide the same answer to the last question, you will not be able to win the $200 prize.*

In addition, to manipulate responsibility for undesired outcomes, participants in the partner responsible condition will read: *When you see the last question, you are relieved because the last question is an easy one. You are certain that you and your partner will provide matching answers and win the $200 prize. Your partner provides the wrong answer. You lose the contest and do not win the $200 prize.* Participants in the partner not responsible condition will read: *When you see the last question, you know that the question is a hard one. You are not sure if you and your partner will provide matching answers and win the $200 price. Your partner provides the wrong answer. You lose the contest and do not win the $200 prize.*

Inspired by the hypothetical scenario, we aim to develop and validate a novel paradigm to systematically, yet realistically, manipulate partners' disappointment. Members of a couple will be welcomed and then placed into separate rooms. Modeled from the classic 1970s Newlywed Game show, participants (both members of the dyad) will answer a series of questions about themselves and their partners (e.g., *What is your [your partner's] favorite fast food restaurant?*). Couples' responses will be compared to see if the members of the dyad accurately guess their partner's answers. Participants will be told that having a greater number of correct answers reflects that a partner has greater knowledge of the other partner, and this predicts the likelihood for the relationship to remain intact. After answering the questions, participants will be given feedback from the research assistants about how they and their partners performed. Critically, regardless of their actual performance, participants will be informed that they performed poorly in guessing partners' answers. This sets the stage for subsequently being told that their partners learned about their poor performances and for their partner to communicate disappointment. Unbeknownst to the participants, the feedback from the partner is fictitious. Participants will either receive a message from their partner communicating a disappointment emoji or a message with a neutral emoji. In a follow-up

study, participants will be asked to communicate their feelings about their partners' performances by selecting a photograph of themselves, which will be taken at the start of the study. As feedback, participants will always receive a photograph from their partner expressing disappointment (vs. a resting expression).

We predict that partners' disappointment (both the disappointment emoji and disappointed facial expressions), compared with the neutral expression, will elicit immediate self-reported as well as video-recorded negative emotional responses. We further expect that participants will generate benign construal of partners' intentions, which in turn will lead to greater motivation to engage in relationship-promoting change, as assessed with both self-report and implicit measures. We also expect that the functional role of disappointment will be strongest among highly satisfied participants.

The Function of Expressing Disappointment

The present dissertation focuses on the function of perceiving disappointment. Future work is needed to examine when, why, and how people express disappointment in close relationships. Our preliminary study with 149 dating participants in a northeastern university indicates that when faced with partner's disappointing behaviors, 77.2% of participants (N = 115) directly expressed disappointment to their partners when they were disappointed. Those who directly expressed disappointment experienced greater negative emotional response immediately after partner's behaviors, compared to those who chose to withhold their disappointment. However, 78.3% of participants (N = 90) who directly expressed their disappointment reported relationship-promoting behavioral changes in their partners, whereas only 56% of participants (N = 19) who did not express their disappointment to their partners reported behavioral changes in their partners. We found that participants who expressed their disappointment perceived their expressions more helpful, and beneficial to the quality of their relationships, compared to those who did not express their disappointment. Therefore, it may

be beneficial to directly express disappointment in romantic relationships.

One factor that may impact the outcomes of expressing disappointment in romantic relationships is timing. People who express negative emotions immediately after partner's negative behaviors may be more emotional and impulsive, whereas those who wait some time before expressions may be more rational. Our preliminary results indicate that 56.5% of participants ($N = 65$) expressed their disappointment to their partners immediately after the partner exhibit the disappointing behavior, whereas 43.5% of participants ($N = 50$) expressed their disappointment after some time had passed. However, we did not find the timing of expression to influence the consequences of expressing disappointment in romantic relationships.

Based on the preliminary results, for future studies, we aim to provide experimental evidence to the observed effects of directly expressing disappointment. To do so, we plan to recruit both partners of a marriage and ask them to think of and write about a partner's behavior that disappoints them. Then, participants will be randomly assigned to one of two conditions in which participants either directly express their disappointment to their partners, or they withhold their disappointment. In the direct expression condition, participants will be instructed to write their partner a message in which they talk about their partner's behavior, and describe their disappointment to their partner. In the withhold condition, participants only write about their partner's behavior, and how they want their partners to change. Following writing the message, partner will report their perceptions of partner's receptivity to the message, how their partners will construe their message, and the extent to which they think their partner will change their behaviors. Then, after reading each other's message, partner will report their motivation to engage in relationship-promoting changes.

We will control for the severity and the frequency of partner's negative behaviors. We will also control for the frequency of partner's expressions because of the negative

behavior, and whether the perceivers heard their partners express their feelings before. We predict that participants who directly express (vs. withhold) their disappointment will benefit from expressing the emotion, in which they will perceive greater relationship-promoting motivations from their romantic partners.

Benign Construal

In Chapter 3 and Chapter 4, we found that generating benign construal of partner's intentions is the key to the relationship-promoting effect of perceiving partner's disappointment. In this line of future research, we aim to examine the role of construals of partner's intentions on negative emotional experiences in romantic relationships. In previous studies, we treated benign construals of partners intentions as an outcome variable. We found that people, especially those with high-quality relationships, tend to generate benign construals of partner's disappointment. But do benign construals of partner's expressions occur immediately after perceiving partner's disappointment, or do they take time? In addition, are benign construals of partner's disappointment automatic, or do they require cognitive effort? To answer these questions, first, we plan to manipulate the time between perceiving partner's disappointment and generating construals of partner's intentions. After eliciting an event of perceiving partner's disappointment using memory recalls, hypothetical scenarios, and real-life dyadic interactions, participants will be asked to report their construals of partner's intentions immediately or after completing a neutral task. Then participants will be asked to report their relationship-promoting motivations. Second, we plan to introduce cognitive load by having participants engage in a high cognitive load task while reporting their construals of partner's intentions. Through two proposed studies, we aim to investigate the nature and prerequisite of generating positive construals of partner's disappointment.

In addition, we aim to incorporate indirect measures to assess people's spontaneous

responses when encountering their partner's disappointment. Using implicit measures such as Implicit Association Task (IAT) and Sequential Priming Task (SPP), we plan to test people's implicit views on their romantic relationships and partners immediately after perceiving partner's disappointment. If benign construals of partner's disappointment occur automatically, then people's implicit view of romantic partners will not change after perceiving partner's disappointment. But if benign construals require cognitive efforts, then we will see a more negative view of romantic partners immediately after perceiving partner's disappointment.

Finally, we want to explore how people construe different types of negative emotional expressions from romantic partners. In Chapter 4, we found that the beneficial effect of chronic relationship quality generalizes to both partner's expressions of disappointment and anger. There was no statistically significant difference in how chronically satisfied people construed their partner's disappointment and anger. The result could indicate that benign construals of partner's intentions are largely impacted by the negative emotions, rather than individual differences in chronic relationship quality. Compared to others, some emotions from romantic partners may be easier for people to construe positively. Then it is essential for us to understand how people construe different types of negative emotions, such as anger, sadness, annoyance, and frustration, in romantic relationships.

Effects of Diverse Negative Emotions

The present dissertation focuses on perceiving partner's disappointment by comparing disappointment to anger. In future research, we will continue to examine how disappointment differs from other negative emotions (e.g., annoyance, sadness). Chapter 2 reveals 18 categories of negative emotions dating individuals experience daily, with annoyance, sadness, frustration, disappointment, anger, and anxiety as the most frequently experienced negative emotions. We will continue to examine the frequency and intensity of diverse negative

emotional experiences in romantic relationships in dating and married samples. For each day of 2 weeks, both partners will complete surveys to report the extent to which they perceived specific negative emotions (e.g., disappointment, annoyance, sadness, anger, hurt, guilt) from their romantic partner that day. Partners will also report their daily perceptions of their relationships, relationship-promoting motivation, and attachment style. By presenting participants with a list of diverse negative emotions, we will compare the effect of perceiving disappointment to not only anger but a variety of other commonly expressed negative emotions while at the same time obscuring the purpose of the study.

In addition, it is essential to differentiate diverse negative emotions in romantic relationships. Emotion literature suggests that disappointment arises unmet expectations (Bell, 1985; Van Dijk, Zeelenberg, Van der Pligt, 1999); Anger is experienced during undesired situations, such as a perceived wrong by other people (Frijda, 1986; Frijda, Kuipers, & Ter Schure, 1989), or when one's desired goal is hindered by outside circumstances (Depue & Zald, 1993; Panksepp, 1998); Sadness is an emotion in response to irretrievable loss of a valued object, goal, relationship or even a part of the self (Bonnano, Goorin & Coifman, 2008; Freed & Mann, 2007); And guilt arises from the perceptions that one's actions caused harm and distress on the relationship partner (Baumeister, Stillwell, & Heatherton, 1994).

However, how do people view different negative emotions in romantic relationships? How do people differentiate between partner's anger, sadness, disappointment, annoyance, and frustration? How do people generate construals of different negative emotional expressions from romantic partners? There are many more questions awaiting examination. In future research, we will investigate understudied negative emotions such as annoyance and frustration and compare and differentiate among diverse negative emotional experiences.

Cross-Cultural Examination of Negative Emotional Experiences

Finally, an area of research that requires future attention is cross-cultural studies on emotional experiences in romantic relationships. How do romantic partners in different cultural backgrounds engage in negative emotional interactions? Does individualism vs. collectivism culture impact how, when, and why people experience negative emotions in romantic relationships? We hope that in the future, we can establish cross-cultural collaborations with relationship and emotion researchers to explore these questions.

Concluding Remarks

Emotions serve social functions that significantly impact the dynamically changing close relationships. It is not surprising that remarkable work has focused on understanding how diverse emotional experiences and expressions affect romantic relationships. However, the emotion of disappointment has received scant attention. Using diverse methodologies and large samples of married and dating participants, the present dissertation serves as a first step in exploring the function of perceiving disappointment in romantic relationships. Chapter 2 confirmed that the emotion of disappointment is an essential component in people's emotional experiences, in which dating individuals frequently experience disappointment in their interactions with romantic partners. Chapter 3 provided a first look at the function of perceiving partner's disappointment. Although partner's disappointment elicited immediate negative emotional responses, married individuals generated benign construals of partner's intentions, which in turn, enhanced relationship-promoting motivations. Finally, Chapter 4 further examined the role of individual differences in chronic relationship quality on the downstream consequences of perceiving partner's disappointment. We found that the relationship-promoting effect of perceiving partner's disappointment was more enhanced in people with high-quality relationships, who were more likely to generate benign construals of partner's intentions. Collectively, the present dissertation contributes to understanding of negative emotional experiences in romantic relationships.

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