

Experiences and Interpersonal Consequences of Hurt Feelings and Anger

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This research compared the experiences and consequences of hurt feelings and anger in 3 retrospective studies (Studies 1a, 1b, and 2), a dyadic daily diary study (Study 3), and a dyadic behavioral observation study (Study 4). Although victims felt both hurt and angry in response to perpetrators' behaviors that signaled relational devaluation (Studies 1–4), hurt and anger differed in terms of victims' subjective experiences and behaviors, perpetrators' responses, and relationship consequences. Hurt was characterized by the experience of commitment, dependence, and vulnerability; goals to restore the perpetrator's acceptance; and constructive behavior. Moreover, victims' hurt was associated with perpetrators evaluating victims and victims' commitment more positively, with perpetrators' feelings of guilt and empathy and with perpetrators' constructive responses. Hurt also had positive consequences for relationships. In contrast, victims' anger was generally independent of commitment and characterized by the experience of control, invulnerability, and low dependence; goals to change perpetrators' behavior; and victims' destructive behavior. Furthermore, victims' anger was associated with perpetrators perceiving victims to be less committed and elicited reciprocated anger and destructive behaviors from perpetrators. These findings suggest that despite relational devaluation being a cause of both hurt and anger, these feelings have distinct social functions. Hurt reflects a desire to maintain interpersonal connection and repair relationships, which will often successfully elicit repair attempts by perpetrators, whereas anger reflects a desire to control others via antagonistic destructive behaviors, which exacerbate interpersonal difficulties.

Keywords: hurt feelings, anger, emotion, relational devaluation

The emotional experience colloquially referred to as “hurt feelings” is a form of social pain that is frequently experienced when people perceive rejection or devaluation by someone (Feeney, 2004, 2005; Leary, Springer, Negel, Ansell, & Evans, 1998; MacDonald & Leary, 2005; Vangelisti, Young, Carpenter-Theune, & Alexander, 2005). This pain is associated with general emotional distress (Leary et al., 1998), activates the same brain regions involved in physical pain (Eisenberger, Lieberman, & Williams, 2003), and rivals physical pain in its unpleasantness (Chen, Williams, Fitness, & Newton, 2008). In the current research, we examined the social functions and consequences of hurt feelings. Consistent with the view that negative emotions can have positive functions and consequences (e.g., Algoe, Haidt, & Gable, 2008; Bartlett & DeSteno, 2006; Fischer & Manstead, 2008; Graham, Huang, Clark, & Helgeson, 2008; Keltner & Haidt, 1999; Salovey,

1991; Van Kleef, 2010), we predicted that hurt would often result in relationship repair following these experiences of devaluation.

We contrasted the social functions and consequences of hurt with those of anger. Anger also is elicited by relational devaluation (see Leary, Twenge, & Quinlivan, 2006) and often blends or co-occurs with hurt. Yet, we posited that anger is a fundamentally different and typically more interpersonally destructive experience. Hurt and anger may have been conflated in prior research and theorizing, and there is little empirical evidence on the differences between them. The present research was an attempt to fill this void.

Our objective was to test whether hurt and anger have different social functions and consequences. At the broadest level, we predicted that hurt functions to repair relationships following interpersonal threats, whereas anger exacerbates relationship difficulties. Table 1 details the more specific underlying experiences and consequences that we predicted would be associated with hurt feelings and anger. In four studies, involving retrospective questionnaires, daily reports by both members of a couple, and dyadic behavioral observation, we tested whether the experience of hurt and anger differed in appraisals of dependence and vulnerability versus personal control, goals to restore acceptance versus control perpetrator behavior, and subsequent constructive versus destructive behaviors. We also tested how perpetrators respond to victims' hurt versus anger, including their relational inferences, emotions, and behaviors. These dimensions are important criteria for estab-

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Table 1
Theorized Experiences and Consequences of Hurt Versus Anger

Victim's emotion	Victim's experiences and responses			Perpetrator's responses		
	Appraisals	Goals	Behaviors	Cognitions	Emotions	Behaviors
Hurt	Dependence and vulnerability	Restore perpetrator's acceptance	Constructive	Positive evaluations of victim and victim's commitment	Empathy and guilt	Constructive
Anger	Control and power	Change/control perpetrator's behavior	Destructive	Negative evaluations of victim and victim's commitment	Anger	Destructive

lishing that hurt and anger have different social functions (see Clark, Fitness, & Brissette, 2001; Fischer & Manstead, 2008; Frijda, Kuipers, & ter Schure, 1989; Frijda & Parrott, 2011; Roseman, Wiest, & Swartz, 1994; Van Kleef, 2010).

The Experience and Social Functions of Hurt Feelings

Victims' Experiences and Responses

The top left side of Table 1 outlines our predictions regarding victims' experiences and responses when feeling hurt in response to relational devaluation. The expectation is that hurt involves subjective appraisals of dependence and vulnerability. The capacity to feel hurt implies the victim is vulnerable to psychological pain at the hands of the perpetrator, and this vulnerability likely comes about because the victim desires or needs a relationship with the perpetrator. Indeed, several scholars have proposed that the victim's dependence on a perpetrator for support, security, and protection creates the potential to feel hurt by relational devaluation (see Leary et al., 1998; Sanford & Rowatt, 2004; Shaver, Mikulincer, Lavy, & Cassidy, 2009; Vangelisti & Young, 2000). Desiring or needing a close relationship creates dependence and vulnerability because the fulfillment of this desire or need depends on the continued investment and relational valuing of the partner (Kelley et al., 2003; Kelley & Thibaut, 1978). When valued partners are rejecting or hostile or betray the self, they signal that they do not value the relationship as highly, which should heighten feelings of vulnerability and pain. Themes of personal injury in reports of hurtful events, and associated feelings such as *damaged*, *heartbroken*, and *shattered* (Feeney, 2005), indicate that feelings of vulnerability are poignant when feeling hurt.

Moreover, if dependence is a central component of feeling hurt in response to relational devaluation, victims' who highly value and are committed to their relationships should be especially likely to feel hurt in these contexts. Relationship commitment summarizes multiple sources of the subjective want and need that should create a vulnerability to hurt feelings, including feelings of satisfaction, the belief that the relationship is more desirable than alternative relationships and activities, and the investment of resources that would render relationship dissolution especially difficult (see Rusbult & Buunk, 1993). Consistent with this prediction, some prior research has found associations between greater relationship "quality" (an average of satisfaction and commitment) and hurt feelings in retrospective accounts of hurtful events (Bachman & Guerrero, 2006; see also Leary & Leder, 2009).

The subjective sense of dependence that we predicted would be associated with hurt feelings should motivate victims to relieve the

psychological pain of hurt feelings by restoring a sense of being valued by the perpetrator. Thus, we predicted that hurt feelings would trigger the goal to restore acceptance (see row 1, column 2, Table 1) and associated relationship-constructive and repairing behaviors (see row 1, column 3). Although relational devaluation often triggers aggressive and destructive behavior (Leary et al., 2006), feeling hurt may mitigate such destructive behavior, as this behavior would only frustrate the goal to restore perpetrators' acceptance and would put victims at risk for more severe and hurtful rejection. Given their sense of vulnerability and dependence, hurt victims should see this as an undesirable strategy. Moreover, hurt victims appear to lack the sense of certainty and control (see Fitness & Warburton, 2009) that seems to promote aggressive responses (see Lerner & Tiedens, 2006). Instead, hurt victims should be more likely to respond in constructive ways that could restore the perpetrators' valuing of the relationship, particularly if they perceive such action could adequately restore the perpetrators' valuing of the relationship and will not be met with additional rejection (see also Murray, Holmes, & Collins, 2006). Some findings do suggest that hurt victims respond in a constructive manner (Bachman & Guerrero, 2006; Vangelisti & Crumley, 1998), and other research suggests that the desire and subjective need for a relationship, which we have argued characterizes hurt, motivates constructive responses to interpersonal threats (Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991). However, other findings suggest that hurt motivates destructive responses (e.g., Bachman & Guerrero, 2006; Caughlin, Scott, & Miller, 2009; Leary et al., 1998; MacDonald & Leary, 2005; Vangelisti & Young, 2000). We believe there are methodological factors that may explain these findings, and we review them in this article.

Perpetrators' Responses

The top right side of Table 1 outlines our predictions regarding perpetrators' responses to victims' hurt. We predicted that when perceiving victims' hurt, perpetrators would: (a) more positively evaluate victims and victims' commitment to their relationship, (b) feel empathic concern and guilt, and (c) behave in constructive ways to alleviate victims' pain. First, hurt may signal victims' commitment to perpetrators. If the capacity to feel hurt arises because victims value relationships with perpetrators, then perpetrators' lay understanding of hurt should lead them to infer from victims' hurt that victims are committed to the relationship. This communication of commitment may motivate perpetrators to repair the relationship, consistent with findings that people enact pro-relationship behaviors when they believe they are valued (Le-

may & Clark, 2008; Murray et al., 2006; Reis, Clark, & Holmes, 2004; Wieselquist, Rusbult, Foster, & Agnew, 1999).

Second, because hurt conveys the hurt person's distress and need, it should also elicit the perpetrator's empathic concern, especially in communal relationships, and such empathic concern should motivate helping behavior (Batson, Eklund, Chermok, Hoyt, & Ortiz, 2007). Moreover, because perpetrators have caused victims' pain, perpetrators should feel guilt—a constructive emotion that motivates relationship repair and usually arises when people believe they have harmed a communal relationship partner (Baumeister, Stillwell, & Heatherton, 1994; Tangney, Wagner, Fletcher, & Gramzow, 1992). These emotional responses may repair the relationship and alleviate victims' hurt (Feeney, 2004; Leary et al., 1998; Ohbuchi, Kameda, & Agarie, 1989; Vangelisti & Sprague, 1998). Finally, victims' hurt may serve as an implicit request for reassurance and support (Sanford & Rowatt, 2004). Hence, when perpetrators believe they have hurt victims, they should feel motivated to alleviate their pain through expressing care for them and the relationship. This should be especially common when perpetrators and victims share communal relationships in which members care for the other's welfare (Clark & Lemay, 2010; Clark, Ouellette, Powell, & Milberg, 1987). Indeed, most hurtful events do appear to involve such relationships (Leary et al., 1998).

Consistent with these predictions, people tend to believe that sharing hurt feelings is a more intimacy-enhancing conflict-resolution strategy than either calm, rational discussion or expressions of anger (Frey, Holley, & L'Abate, 1979). In addition, laboratory studies in which victims' physical pain cues have been manipulated have revealed that people become less aggressive toward victims when victims seem to be suffering (Baron, 1971a, 1971b; Buss, 1966), perhaps because the pain cues elicit empathy or guilt. We theorized that victims' expressions of social pain would similarly elicit perpetrators' constructive behavior. However, other findings are inconsistent with these predictions. For example, in a study of autobiographical narratives of hurtful incidents (Leary et al., 1998), the frequency of narratives featuring a perpetrator apologizing or asking for forgiveness was quite low, and narratives featuring perpetrators' destructive responses to victims' hurt, such as doing nothing or acting as if they did not care, were just as common. Moreover, in contrast to our broader view that hurt facilitates relationship repair, narratives about hurtful events have frequently featured descriptions of negative relationship consequences (Leary et al., 1998). Again, we will consider methodological factors that may explain why these prior findings do not fit with our prediction that people usually respond in a more constructive manner to hurting others.

The Experience and Social Functions of Anger

Victims' Experiences and Responses

The bottom left side of Table 1 outlines our predictions regarding victims' experiences and responses when experiencing anger in response to relational devaluation. Although, like hurt feelings, anger is often elicited by relational devaluation, we believe that anger is distinct from hurt on all of the other dimensions discussed previously and outlined in Table 1. Rather than the dependence and vulnerability that we predicted would be associated with hurt

feelings, anger is characterized by appraisals of certainty and control (or power; Frijda et al., 1989; Mikulincer, 1994; Roseman, Antoniou, & Jose, 1996; Smith & Ellsworth, 1985), and effects of anger on risk perceptions and risky decision making suggest that anger is associated with feeling invulnerable (Lerner, 2001; for a review, see Lerner & Tiedens, 2006). Anger also encourages reliance on relatively automatic, superficial, and heuristic thought processes (Bodenhausen, Sheppard, & Kramer, 1994; Lerner, Goldberg, & Tetlock, 1998; Tiedens & Linton, 2001), directs attention to new angering events, and motivates quick action (for a review, see Lerner & Tiedens, 2006). Hence, angry victims are unlikely to keep in mind their own dependence on perpetrators or to carefully consider the effects of their actions on the welfare of the relationship.

Rather than restoring acceptance, the principal goal associated with anger is to change the perpetrator's behavior through coercion or punishment (Averill, 1982; Fischer & Roseman, 2007). Such change is unlikely to be done in a diplomatic manner that restores the perpetrator's acceptance. Anger is associated with a state of action readiness that Frijda et al. (1989) described as *moving against*. That is, anger is characterized by urges to change the situation by fighting, harming, or conquering an opponent (see also Roseman et al., 1994). In addition, the cognitive appraisals and shifts in information processing accompanying anger may undermine the victim's ability to attend to broader relationship concerns, such as the perpetrator's acceptance, and may instead cultivate a myopic focus on fulfilling antagonistic urges. As a result of the attendant antagonistic action tendencies, appraisals, and shifts in cognitive processing, we expected that the experience of anger in response to relational devaluation usually would motivate victims to behave destructively, including blaming or criticizing the perpetrator and engaging in other actions that harm the perpetrator. Indeed, links between anger and such behavior are well documented (e.g., Averill, 1982; deRivera & Grinkis, 1986; Fincham & Bradbury, 1992; Fischer & Roseman, 2007; Fitness & Fletcher, 1993; Frijda et al., 1989; Lerner & Tiedens, 2006; Roseman et al., 1994; Shaver, Schwartz, Kirson, & O'Connor, 1987; Smith & Lazarus, 1993), and anger mediates effects of social exclusion on destructive behavior (Chow, Tiedens, & Govan, 2008). However, prior research has not examined whether these experiences differentially characterize hurt and anger.

Perpetrators' Responses

Given the victims' experiences and responses we have described, in contrast to hurt feelings, victims' anger should eliminate or hinder perpetrators' reparative responses. Rather than signaling dependence and commitment, angry victims' antagonistic behaviors likely convey to perpetrators that victims do not care about them or the relationship. Indeed, victims' anger may warn perpetrators that their welfare is in jeopardy. Such messages may be conveyed even in the absence of aggressive behavior, as perpetrators likely infer victims' disapproval and aggressive motives from their expressions of anger (Averill, 1982; Knutson, 1996; Tiedens, 2001; Van Kleef et al., 2009), which should motivate them to distance themselves from angry victims (Dunham, 2011; Miller, Maner, & Becker, 2010). The felt threat and desire for distance may limit perpetrators' capacity to focus on angry victims' welfare, reduce their empathic concern (see Mikulincer et al.,

2001) and guilt (see Leith & Baumeister, 1998), and inhibit their efforts to make amends. Because people infer high control and low dependence from others' anger (Knutson, 1996; Tiedens, 2001), perpetrators are unlikely to perceive angry victims to be in need of help. Instead, perpetrators may respond to angry victims' destructive behavior, efforts to control, and apparent lack of concern for affiliation by defensively reciprocating their negativity (see Averill, 1982; Baumeister, Stillwell, & Wotman, 1990; Levenson & Gottman, 1983). Hence, we expected that perpetrators would respond to victims' anger in a less constructive and more destructive way relative to their response to victims' hurt. Prior research has not examined this issue.

Why Our Predictions Are Inconsistent With Some Prior Research on Hurt Feelings

Although we noted some findings that are consistent with our view that hurt facilitates relationship repair and is not a destructive emotional experience, we also noted findings that are inconsistent with this view. Specifically, some findings indicate that hurt is associated with victims' destructive responses, that perpetrators are not especially constructive in response to victims whom they have hurt, and that hurtful events have negative relationship consequences. Several factors may have contributed to this apparent discrepancy.

First, many apparently negative effects of hurt feelings may be negative effects of anger. Although we suggest they are qualitatively different experiences, victims who feel hurt also tend to report anger (Fehr, Baldwin, Collins, Patterson, & Benditt, 1999; Fine & Olson, 1997; Leary & Leder, 2009; MacDonald & Leary, 2005; Sanford & Rowatt, 2004). Both emotions are negative, and both are elicited by others' aversive behavior that signals relational devaluation. These common features may contribute to a positive correlation between hurt and anger. Moreover, in some situations, victims may experience some features we predicted of hurt and other features we predicted of anger. For example, when victims strongly want to be accepted by the perpetrator and have the sense of control to coerce change in the perpetrator's aversive behaviors, they may report both hurt and anger (and associated experiences and behaviors in Table 1). In addition, reports of both hurt and anger may occur when people shift from one emotion to the other in a short time span. When they report globally on the event, they may report both emotions. For instance, when the restoration of acceptance does not seem forthcoming, hurt victims may protect themselves from the pain of rejection by devaluing the relationship with the perpetrator (see Murray et al., 2006). Accordingly, they may give up on their goal to restore acceptance and instead pursue the goal of punishing the perpetrator's aversive behavior. We expected that such a transition in motivational state would coincide with a transition from hurt to anger. Alternatively, victims may shift from anger to hurt after considering the deeper relational meaning underlying an offensive remark or after contemplating their own dependence on the perpetrator. Such a shift would be consistent with findings suggesting that people often exhibit immediate impulses to reciprocate destructive behavior but undergo a transformation of motivation (Yovetich & Rusbult, 1994) in which these impulses are inhibited after considering broader relationship concerns. Finally, although we believe most people use *hurt* and *angry* labels to describe qualitatively different experi-

ences, some individuals may not understand the difference between these terms and may use them interchangeably (see Salovey & Mayer, 1990).

Yet, even if hurt and anger experiences are often blended, they are considered by many researchers, ourselves included, to be unique (see Feeney, 2005; Fitness & Warburton, 2009; Leary & Leder, 2009; Shaver et al., 2009; Vangelisti, 2009). That is, some features are thought to be more characteristic of one emotion relative to the other. Understanding these differences requires control of their positive association. Otherwise, characteristics that are highly associated with one experience may be falsely attributed to the other only because these emotions are sometimes blended (i.e., a confound effect). Research by Tangney and colleagues (Tangney et al., 1996; Tangney, Wagner, Fletcher, et al., 1992; Tangney, Wagner, & Gramzow, 1992) on shame and guilt illustrates a useful approach for grappling with the covariance between emotions. Like hurt and anger, reports of shame and guilt are strongly positively associated, but these studies suggest very different cognitive and behavioral signatures of shame and guilt once their direct effects are examined through statistical partialing (see also Sanford & Rowatt, 2004). We used a similar approach to understand hurt and anger. This approach can reveal which aspects of experience are due to hurt feelings and which are due to anger, even when hurt and anger are sometimes blended.

Other methodological factors also may have contributed to the view of hurt as a destructive experience. Some of the most influential studies of hurt feelings are studies of retrospective accounts of hurtful events (Feeney, 2005; Leary et al., 1998; Vangelisti & Young, 2000). These studies required participants to identify and then describe any hurtful event they experienced. Participants in these studies tend to select events that occurred in the distant past, despite the fact that most participants had been hurt more recently (Feeney, 2004; Leary & Springer, 2001). This may indicate that participants selected events that were especially damaging or unresolved. The vividness of these events, as well as a Zeigarnik effect—the tendency to exhibit heightened memory for unfinished tasks (Zeigarnik, 1938)—may explain why participants would select them. Indeed, people may forget typical hurtful events that have been met with apologies, repair, and resolution. If these speculations are correct, then these studies may have overestimated the negative impact of more typical hurtful episodes.

In addition, some influential studies characterized as being about hurt feelings have not clearly demonstrated that the experience of hurt per se predicts negative outcomes. For example, findings suggesting that destructive responses and negative relationship outcomes are frequently described features of hurtful events (Leary et al., 1998) do not necessarily imply that the presence or intensity of hurt was responsible for negative outcomes. Other aspects of these events could cause negative responses. For example, given that most of these events have themes of relational devaluation, devaluation may have been a direct cause, consistent with findings suggesting that devaluation can predict aggressive behavior and reduced constructive behavior without being mediated by negative emotion (Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007; Twenge, Baumeister, Tice, & Stucke, 2001), findings illustrating the power of reciprocity in interpersonal attraction (e.g., Kenny & la Voie, 1982), and findings suggesting that people are reluctant

to invest in relationships when they doubt acceptance (Murray et al., 2006). Likewise, some influential studies of hurt feelings have examined other variables, such as perceived intentionality (Vangelisti & Young, 2000), perceived rejection (Feeney, 2004), the perpetrator's behaviors (Feeney, 2004), and other negative affective responses (Feeney, 2004). Of course, these are not the same as hurt feelings.

Related to the previous point, reviews of consequences of hurt feelings (e.g., Caughlin et al., 2009; Leary & Springer, 2001; MacDonald & Leary, 2005) have described antisocial responses to relational devaluation as if they were responses to hurt. According to the implicit logic present in these reviews, if relational devaluation causes hurt feelings and causes negative outcomes, then hurt feelings must cause negative outcomes. However, as we have described, hurt feelings may not be the culprit. Relational devaluation elicits a variety of emotional experiences that could mediate its effects on negative outcomes (Leary, 1990; Leary et al., 2006), and devaluation may elicit negative outcomes directly (Twenge et al., 2001; 2007).

Current Research

Despite agreement among many scholars that hurt and anger are distinct experiences, prior research has not adequately differentiated them. As outlined in Table 1, we discriminated hurt and anger according to victims' appraisals, goals, and behaviors and perpetrators' cognitive, emotional, and behavioral responses. To summarize, our prototype of hurt is as follows: Hurt occurs when the victim feels devalued by a perpetrator who is highly valued by the victim. Hurt is thus characterized by a feeling of dependence and vulnerability to harm, and by the goal of restoring a sense of acceptance and being valued. As such, hurt usually occurs when victims feel committed to perpetrators, it does not motivate victims' destructive behavior, and it may motivate constructive responses to repair the relationship. Victims' hurt conveys their commitment to perpetrators, elicits perpetrators' empathy and guilt, and motivates perpetrators' provision of reassurance. These responses should contribute to relationship repair. In contrast, our prototype of anger is as follows: Anger arises when a victim is dissatisfied with behavior enacted by a perpetrator, is characterized by appraisals of low dependence and high power, and involves the goal of coercing change in that behavior, usually through antagonistic, punishing behaviors. When anger is perceived by perpetrators, it conveys the victims' dissatisfaction, lack of felt dependence, and antagonistic urges, and thus often elicits the perpetrators' continued enactment of destructive behaviors. These responses likely exacerbate and perpetuate interpersonal problems.

Across four studies, we tested these distinctions between hurt and anger and addressed the previously described methodological issues in several ways. First, we examined direct effects of victims' hurt and anger intensity, and our analyses ruled out the alternative explanation that these effects are confounds of relational devaluation. Second, we tested our predictions in a methodologically pluralistic manner. We conducted retrospective studies of subjective experiences and subsequent behaviors associated with hurt and anger (Studies 1a, 1b, and 2), perpetrators' responses (Study 2), and relationship consequences

(Study 2). However, we also used other methodological approaches. Study 3 is a daily diary study in which we examined perpetrators' responses to romantic partners' hurt and anger. Study 4 is a behavioral observation study in which we examined behavioral responses to victims' hurt and anger during ongoing interactions. In the latter two studies, we also tested the prediction that victims' commitment creates a vulnerability to hurt feelings.

Studies 1a and 1b

In our first two studies, we attempted to replicate prior findings indicating that relational devaluation elicits both hurt feelings and anger, and tested predictions regarding the subjective experiences and subsequent behaviors characterizing hurt and anger. We predicted that hurt would be associated with victims' felt vulnerability and dependence and with their goals to restore acceptance (see left-hand section of Table 1). In contrast, we predicted that anger would be associated with victims' subjective sense of power, and desires to coerce change in the perpetrator's behavior. We also predicted that anger, but not hurt, would be associated with victims' destructive responses, and we speculated that hurt may instead be associated with victims' constructive responses.

In Study 1a, participants recalled an incident in which they felt hurt or angry and then completed measures assessing the constructs described and listed in Table 1. This procedure allowed us to examine whether our predictions could be supported while randomly assigning participants to hurt or angry conditions, which would suggest differences in hurt and angry states rather than individual difference phenomena (i.e., qualities of hurt-prone or anger-prone people). However, the explicit instructions to report on a hurtful or angry event could have activated general knowledge about hurt and anger, which could have biased participants' responses (see Robinson & Clore, 2002). We addressed this issue in Study 1b: participants recalled a time in which they were mistreated by someone and then completed the same measures. Unlike participants in Study 1a, the concepts of hurt and anger were not made salient. In fact, hurt and anger were mentioned only in the two questions assessing intensity of these experiences. Hence, consistency in findings across these studies would suggest that they cannot be explained by activating general knowledge of hurt and anger.

Method

Participants. Study 1a included 422 participants (M age = 38 years; 189 men and 229 women). Study 1b included 218 participants (M age = 33 years; 50 men and 168 women). Participants in both studies completed a questionnaire posted on the Internet and were recruited using two methods. Advertisements were posted on local Internet bulletin boards across the continental United States inviting participants to complete the questionnaire in exchange for entry in cash raffles. In addition, participants were recruited through Amazon Mechanical Turk, an open website that offers "workers" the ability to complete brief tasks over the Internet in exchange for a small payment. Prior research suggests that samples collected via Amazon Mechanical Turk are more demographically diverse than typical online and college student samples and that

data quality is comparable (Buhrmester, Kwang, & Gosling, 2011). In Study 1a, the racial distribution was as follows: 79.1% White, 5% African American, 9% Asian, and 7% other. In Study 1b, the racial distribution was as follows: 78.7% White, 8.2% African American, 8.2% Asian, and 4.6% other.¹

Measures and procedure. In Study 1a, participants were assigned randomly to recall an incident in which someone hurt their feelings or made them angry. In Study 1b, participants recalled an incident in which they were the target of negative treatment from another person. Participants in both studies then described the incident and completed the rating scale questions described in the following text. We refer to participants as *victims* and the individuals reported by participants as enacting the focal negative behaviors as *perpetrators*.

Perpetrators' devaluation behaviors. To assess the degree to which perpetrators engaged in behaviors that could communicate relational devaluation, we asked participants to complete eight questions that assessed perpetrators' behaviors, including (a) explicit statements of relational devaluation (e.g., "Said that he/she does not desire a relationship with you"; "Said that he/she has negative feelings about you"), (b) betrayal (e.g., "Lied to you"; "Betrayed your trust"), and (c) social exclusion and ostracism (e.g., "Excluded you from some activity"; "Ignored you"). Items were completed on 5-point response scales (1 = *not at all characteristic of [perpetrator name]'s behavior*; 5 = *extremely characteristic of [perpetrator name]'s behavior*; Study 1a Cronbach's $\alpha = .86$; Study 1b Cronbach's $\alpha = .85$).²

Victims' appraisals. Participants completed questions assessing their subjective experiences after perpetrators enacted the initial behavior to test the key distinctions outlined in Table 1. Four items assessed subjective dependence on the relationship (e.g., "I felt that I needed my relationship with [perpetrator name]"; "I felt dependent on [perpetrator name]"; Study 1a Cronbach's $\alpha = .90$; Study 1b Cronbach's $\alpha = .86$), three items assessed vulnerability (e.g., "I felt vulnerable to harm"; "I felt cautious"; Study 1a Cronbach's $\alpha = .71$; Study 1b Cronbach's $\alpha = .72$), and four items assessed subjective control and power (e.g., "I felt powerful"; "I felt strong enough to overpower [perpetrator name] if needed"; "I felt independent"; Study 1a Cronbach's $\alpha = .75$; Study 1b Cronbach's $\alpha = .77$). Items were completed on 6-point scales (1 = *strongly disagree*, 6 = *strongly agree*).

Victims' goals. Participants also completed questions assessing the relevant goals presented in Table 1. Five items assessed goals to restore the perpetrator's acceptance (e.g., "I felt a desire to be loved by [perpetrator name]"; "I wanted [perpetrator name] to care about me more than he/she seemed to"; "I wanted [perpetrator name] to express positive views of me"; Study 1a Cronbach's $\alpha = .90$; Study 1b Cronbach's $\alpha = .88$). Four items assessed goals to change perpetrators' behavior through punishment or coercion (e.g., "I wanted to force [perpetrator name] to change his/her behavior"; "I wanted to punish [perpetrator name] for his/her wrongdoing"; "I wanted to teach [perpetrator name] a lesson"; Study 1a Cronbach's $\alpha = .85$; Study 1b Cronbach's $\alpha = .84$).

Victims' subsequent behavior. Participants completed items assessing their behavioral reactions after perpetrators enacted the initial behavior. Four items assessed destructive responses (e.g., "Blamed, criticized, or insulted [perpetrator name]"; "Was sarcastic or patronizing to [perpetrator name]"; "Yelled at [perpetrator name]"; Study 1a Cronbach's $\alpha = .78$; Study 1b Cronbach's $\alpha = .80$), and

seven items assessed constructive responses (e.g., "Calmly expressed your feelings or point of view to [perpetrator name]"; "Expressed positive feelings about [perpetrator name]"; "Expressed a willingness to compromise to [perpetrator name]"; Study 1a Cronbach's $\alpha = .88$; Study 1b Cronbach's $\alpha = .88$). Items were completed on 5-point scales (1 = *not at all characteristic of my behavior*, 5 = *extremely characteristic of my behavior*).

Participants' felt intensity of hurt and anger. Participants also completed one item assessing the extent to which they felt angry during the incident and one item assessing the extent to which they had hurt feelings during the incident. Items were completed on 5-point response scales (1 = *not at all*, 5 = *extremely*).

Results and Discussion

We first attempt to replicate prior findings suggesting that perpetrators' devaluation behaviors elicit victims' hurt feelings and anger. We then examine associations of victims' hurt and anger with their subjective experiences and subsequent behaviors.

Effects of relational devaluation on hurt feelings and anger. We regressed victims' ratings of hurt feelings and anger on the index of perpetrators' devaluation behaviors. Perpetrators' devaluation behaviors predicted victims' hurt feelings, Study 1a: $\beta = .35$, $t = 7.29$, $p < .001$; Study 1b: $\beta = .35$, $t = 5.24$, $p < .001$, and victims' anger, Study 1a: $\beta = .23$, $t = 4.66$, $p < .001$; Study 1b:

¹ The challenges of conducting research over the Internet are well documented (see Krut et al., 2004). These challenges include multiple submissions by the same individual; inability to control the testing environment, which introduces noise; high dropout rates; and reductions of participants' investment of time and energy into the research tasks. We took a number of steps to address these issues. First, we tracked Internet protocol (IP) addresses and eliminated submissions that were identical to a prior submission with regard to both the IP address and the participant's age, which should have addressed the problem of repeat responders. Using these same criteria, we eliminated data from the two participants who appeared to provide responses in both Study 1a and Study 1b from Study 1a. Second, to address issues of reduced investment of time and energy, we tracked questionnaire completion times and eliminated all responses provided by participants who completed the study in 5 min or less. This criterion was established before we conducted our data analysis, and implementing this rule had a negligible effect on the obtained results. The pattern of statistical significance remained the same, and coefficients changed in minuscule ways. Implementing this rule reduced the sample size in the primary analyses by approximately five participants in Study 1a and by approximately 10 participants in Study 1b. Many other participants who did not meet this 5-min criterion would have been excluded from analyses anyway because they discontinued their participation very early in the questionnaire, leaving missing responses on all of the primary variables. This dropout issue is common in Internet-based research (e.g., Birnbaum, 2004; Williams, Cheung, & Choi, 2000). All analyses and descriptive statistics are from analyses conducted after implementing this rule. Third, to mitigate the issue of increased noise, we collected large samples.

² A complete list of scale items is available upon request.

³ An alternative view is that one of these emotions is secondary, only a result of feeling the other. That is, perhaps victims felt angry by devaluation only because they initially felt hurt, or they felt hurt only after they were initially made angry. These data did not support this view. Even after controlling for victims' anger, perpetrators' devaluation behaviors predicted victims' hurt feelings, Study 1a: $\beta = .37$, $t = 7.63$, $p < .001$; Study 1b: $\beta = .31$, $t = 4.55$, $p < .001$. Likewise, even after controlling for victims' hurt feelings, perpetrators' devaluation behaviors predicted victims' anger, Study 1a: $\beta = .26$, $t = 4.91$, $p < .001$; Study 1b: $\beta = .16$, $t = 2.18$, $p < .05$.

$\beta = .23, t = 3.3, p < .001$. These results replicate prior findings suggesting that devaluation elicits both hurt feelings and anger.³

Victims' appraisals, goals, and behaviors associated with hurt and anger.

Mean comparisons. We expected that the experience of hurt would be associated with perceptions of dependence on a relationship with the perpetrator, a sense of vulnerability to harm, goals to restore the perpetrator's acceptance, and subsequent constructive behavior. In contrast, we expected that the experience of anger would be associated with a subjective sense of control, goals to control the perpetrator's behavior, and subsequent destructive behavior. Using data from Study 1a, we compared victims' subjective experiences and subsequent behaviors across the hurt and anger conditions with independent samples *t* tests (see Table 2). Relative to participants who were assigned to report on an experience in which they were made angry, participants who were assigned to report on a hurtful experience reported greater dependence, more vulnerability, and stronger acceptance goals. Relative to participants who were assigned to report on a hurtful experience, participants who were assigned to report on an angry experience reported higher subjective control, stronger behavior control goals, and more destructive behavior. Constructive behavioral responses did not vary across conditions. With this one exception, these results provide strong support for our predictions.

These findings demonstrate that random assignment to reporting on hurtful or angry experiences produces differences in reports of subjective experiences and subsequent behaviors that are consistent with our predictions. This method is useful because the results suggest differences between the states of hurt and anger rather than effects of individual differences. However, the method is limited because the comparisons are constrained. Although participants assigned to report a hurtful incident reported significantly more hurt feelings during the incident ($M = 4.39$) than participants assigned to report an anger incident ($M = 3.64$), $t(385) = 6.58, p < .001$, it is clear that hurt was elevated across both conditions. Likewise, participants assigned to report an angry experience reported more anger ($M = 4.25$) than participants assigned to report a hurtful experience ($M = 3.59$), $t(385) = -6.40, p < .001$, but again it is clear that anger was elevated across both conditions. The condition comparisons may have underestimated differences between hurt and anger because these conditions do not vary widely on hurt and anger. Moreover, the condition comparisons do not indicate whether differences are due to effects of

hurt, effects of anger, or both. To address these limitations, we used data from both Studies 1a and 1b to conduct analyses involving the continuous ratings of hurt and anger intensity.

Analyses using continuous ratings of hurt and anger intensity.

First we examined effects of hurt and anger on cognitive appraisals (i.e., perceived dependence, vulnerability, and control). We used data from both Study 1a and Study 1b and regressed each of these variables on victims' hurt and anger intensity. Given that both hurt and anger were associated with perpetrators' devaluation behaviors, we controlled for perpetrators' devaluation behaviors to be sure that support for our predictions was not due to the association of hurt or anger with perpetrators' devaluation behaviors. In fact, results supported our predictions regardless of whether we included this control. Results from both Study 1a and Study 1b were consistent with our predictions (see Table 3). Victims' hurt was positively associated with subjective dependence and vulnerability and was inversely associated with subjective control. Victims' anger was inversely associated with dependence and (in Study 1b only) vulnerability and was positively associated with subjective control.

Next we used the same approach to examine effects of hurt and anger on victims' goals (see Table 4). Results again supported our predictions across both Study 1a and Study 1b. Victims' hurt was positively associated with acceptance goals and (Study 1a only) inversely associated with behavior control goals, whereas victims' anger was positively associated with behavior control goals and inversely associated with acceptance goals.

We conducted analogous regression models to examine the associations of hurt feelings and anger with victims' constructive and destructive behavior following the event (see Table 5). In both Studies 1a and 1b, victims' anger predicted increased destructive behavior and decreased constructive behavior. In contrast, victims' hurt did not predict destructive behavior and predicted increased constructive behavior, although this effect was found only in Study 1a.

Summary. Results of both studies are consistent with the conceptual distinctions outlined in Table 1. Hurt was associated with feelings of dependence on the relationship with the perpetrator, vulnerability to harm, and reduced control, and with goals to restore acceptance. Anger, in contrast, was associated with feelings of greater subjective control, reduced dependence, and reduced vulnerability, and with goals to coerce change in perpetrators' behavior. In addition, anger, but not hurt, was associated with victims' increased destructive behavior and reduced constructive behavior.⁴

Table 2
Comparisons Across Hurt and Anger Accounts (Study 1a)

Victims' experiences and responses	Hurt condition	Anger condition	<i>t</i>
Dependence	3.29 (1.52)	2.69 (1.56)	3.88***
Vulnerability	3.93 (1.34)	3.27 (1.47)	4.66***
Subjective control	2.52 (1.10)	3.00 (1.22)	-4.03***
Acceptance goals	3.73 (1.4)	3.04 (1.59)	4.57***
Behavior control goals	3.45 (1.45)	4.17 (1.42)	-4.93***
Constructive behavior	2.40 (1.05)	2.38 (1.06)	0.25
Destructive behavior	2.08 (1.01)	2.42 (1.06)	-3.18**

Note. Means appear outside parentheses, and standard deviations appear inside parentheses. Due to missing values, degrees of freedom for the *t* tests ranged from 379 to 400.

** $p < .01$. *** $p < .001$.

⁴ In Study 1a, hurt and anger reports were not significantly correlated, $r(380) = -.02, p > .73$. This null association appeared to be due to the fact that assignments to conditions resulted in one group of participants reporting more hurt and less anger than another group, contributing to a negative correlation between hurt and anger. Indeed, the partial correlation between ratings of hurt and anger after condition was controlled was marginal and positive, $r(378) = .10, p = .06$. In Study 1b, hurt and anger were only moderately positively correlated, $r(196) = .26, p < .001$. Given that the associations between hurt and anger were only moderate in these studies, regression analyses that excluded one of these as a predictor produced a nearly identical pattern of results. We added interactions with gender to all regression models to examine whether effects were moderated by gender. In 28 tests of gender interactions across Studies 1a and 1b, none of the moderating effects reached conventional significance levels, $ps > .07$. Moreover, the one marginal interaction in Study 1a was not marginal in Study 1b, and the two marginal interactions in Study 1b were not marginal in Study 1a, suggesting that gender effects were not replicable.

Table 3
Effects of Perpetrators' Devaluation Behaviors, Victims' Hurt Feelings, and Victims' Anger on Victims' Cognitive Appraisals (Studies 1a and 1b)

Predictor	Dependence	Vulnerability	Subjective control
Study 1a			
Perpetrators' devaluation behaviors	.20 (4)***	.16 (3.2)**	.06 (1.1)
Victims' hurt feelings intensity	.28 (5.68)***	.38 (7.69)***	-.33 (-6.51)***
Victims' anger intensity	-.21 (-4.35)***	.02 (.37)	.17 (3.37)**
Study 1b			
Perpetrators' devaluation behaviors	.25 (3.59)***	.22 (3.11)**	.12 (1.63)
Victims' hurt feelings intensity	.36 (5.21)***	.38 (5.4)***	-.25 (-3.24)**
Victims' anger intensity	-.22 (3.38)**	-.14 (-2.1)*	.16 (2.18)*

Note. Standardized coefficients appear outside parentheses, and *t* values appear inside parentheses. In Study 1a, residual degrees of freedom ranged from 377 to 378. In Study 1b, residual degrees of freedom ranged from 189 to 190.

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

Study 2

In our second study, we attempted to replicate some of the theoretically central findings reported in Studies 1a and 1b, including findings regarding victims' goals and subsequent behaviors. In addition, and consistent with the distinctions outlined in Table 1, we tested the additional predictions that victims' hurt feelings signal high levels of commitment to perpetrators, whereas victims' anger signals low commitment; and victims' hurt feelings elicit perpetrators' constructive responses, whereas victims' anger elicits perpetrators' destructive responses.

In addition, we examined relationship consequences of hurtful and angry events. Prior research suggests the hurtful events have generally negative consequences (Leary et al., 1998). However, we expected that as a result of constructive responses to victims' hurt, the experience of hurt may have positive relationship consequences. Indeed, given destructive responses to anger, anger should have more negative consequences than hurt. As stated earlier, one reason that prior retrospective studies suggest negative consequences of hurtful events relates to the methodology used to

sample events. Participants in prior retrospective studies were permitted to select any hurtful event. Events with especially destructive consequences (e.g., relationship termination), with severe transgressions (e.g., infidelity), or that are unfinished (e.g., the perpetrator has yet to make amends) may have been especially memorable and therefore overrepresented. As a result, these studies may have produced an overly negative portrayal of hurtful events. To address this issue, we asked participants to describe recent events, with the expectation that this would pull for more typical episodes of hurt. Given the systematic biases that arise as a function of recalling events from victim and perpetrator perspectives (i.e., perpetrators portray themselves as less culpable and destructive than victims portray perpetrators; Baumeister et al., 1990), we solicited reports of events from both perspectives.

Method

Participants. Undergraduate college students (M age = 19.72 years; 115 men and 148 women) were recruited from a participant pool and received partial credit in their psychology courses in exchange for participation. The majority (94%) of participants were White.

Table 4
Effects of Perpetrators' Devaluation Behaviors, Victims' Hurt Feelings, and Victims' Anger on Victims' Goals (Studies 1a and 1b)

Predictor	Goals	
	Acceptance	Behavior control
Study 1a		
Perpetrators' devaluation behaviors	.24 (5.12)***	.13 (2.71)**
Victims' hurt feelings intensity	.39 (8.51)***	-.15 (-3.13)**
Victims' anger intensity	-.19 (-4.35)***	.45 (9.75)***
Study 1b		
Perpetrators' devaluation behaviors	.23 (3.47)**	.14 (2.05)*
Victims' hurt feelings intensity	.44 (6.68)***	-.07 (-1.02)
Victims' anger intensity	-.30 (3.47)**	.45 (6.74)**

Note. Standardized coefficients appear outside parentheses, and *t* values appear inside parentheses. In Study 1a, residual degrees of freedom ranged from 377 to 378. In Study 1b, residual degrees of freedom ranged from 189 to 190.

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

Table 5
Effects of Perpetrators' Devaluation Behaviors, Victims' Hurt Feelings, and Victims' Anger on Victims' Constructive and Destructive Behaviors (Studies 1a and 1b)

Predictor	Behaviors	
	Constructive	Destructive
Study 1a		
Perpetrators' devaluation behaviors	.21 (3.96)***	.14 (2.69)**
Victims' hurt feelings intensity	.17 (3.16)**	-.08 (-1.53)
Victims' anger intensity	-.19 (-3.69)***	.37 (7.56)***
Study 1b		
Perpetrators' devaluation behaviors	.34 (4.66)***	.23 (3.15)**
Victims' hurt feelings intensity	.03 (0.41)	-.11 (-1.56)
Victims' anger intensity	-.28 (-3.94)***	.32 (4.61)***

Note. Standardized coefficients appear outside parentheses, and *t* values appear inside parentheses. In Study 1a, residual degrees of freedom were 367. In Study 1b, residual degrees of freedom were 186.

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

Procedure and measures. Participants completed a questionnaire on which they described and rated two recent incidents (“within the past month or so”) that occurred with a relationship partner, one relevant to hurt feelings and one relevant to anger. They were instructed to describe incidents involving the same romantic partner ($n = 112$) or the same friend if they were not romantically involved ($n = 142$).⁵ Participants who were assigned to the perpetrator perspective condition (*perpetrator reporters*; $n = 123$) described one incident in which they hurt this person’s (the victim’s) feelings and one incident in which they made this person angry. Participants assigned to the victim perspective condition (*victim reporters*; $n = 141$) described incidents in which they felt hurt by this person (the perpetrator) and angry with this person. Order was counterbalanced. After describing the incident, participants completed the measures described in the following text. Except for 10 cases (2% of all requested events), participants were able to identify relevant events.

Perpetrators’ devaluation behaviors. Perpetrator reporters responded to five questions assessing their enactment of behaviors that instigated the situation and made the victim upset. These questions assessed common ways of communicating relational devaluation to victims, including betrayal (“I lied to or betrayed him/her”), criticism (“I criticized him/her”), cold behavior (“I was cold toward him/her”), selfishness (“I was being selfish”), and unfair treatment (“I treated him/her unfairly”). Victim reporters completed analogous measures of the perpetrator’s behavior. Items were completed on 9-point response scales (1 = *extremely disagree*, 9 = *extremely agree*; Cronbach’s α = .71 and .73, respectively).

Victims’ hurt feelings and anger intensity. Participants reporting on their experience as victims completed two items assessing the intensity of their hurt feelings and anger during each incident (i.e., “My feelings were hurt”; “I was angry”). Perpetrator reporters completed two analogous items assessing their perceptions of the victim’s emotions (e.g., “His/her feelings were hurt”). Items were completed on 5-point scales (1 = *very slightly or not at all*, 5 = *extremely*).

Perpetrators’ perception of victims’ state commitment. Perpetrator reporters completed a three-item measure of their perceptions of the victim’s commitment during the incident (e.g., “This person felt very attached to me”; “This person felt committed to maintaining our relationship”; Cronbach’s α = .54). Items were completed on 9-point response scales (1 = *extremely disagree*, 9 = *extremely agree*).

Victims’ goals. Victim reporters completed a two-item measure assessing their goals to restore the perpetrator’s relational valuing during the incident (i.e., “I wanted this person to express more positive feelings about me”; “I wanted this person to care more about our relationship”; Cronbach’s α = .80) and a four-item measure assessing goals to change the perpetrator’s behavior (e.g., “I wanted this person to do things my way”; “I wanted to change this person’s behavior”; Cronbach’s α = .74). Items were completed on 9-point response scales (1 = *extremely disagree*, 9 = *extremely agree*). Participants assigned to the perpetrator perspective condition completed analogous items assessing perceptions of the victim’s goals to restore the perpetrator’s relational valuing and to change the perpetrator’s behavior, using identical response scales (e.g., “He/she wanted me to care more about our relationship”; Cronbach’s α = .77 and .78, respectively).

Victims’ behavioral responses. Victim reporters completed a four-item measure of constructive behaviors they enacted after they became hurt or angered by the perpetrator (e.g., “I expressed positive feelings about him/her and our relationship”; “I asked him/her for reassurance regarding how he/she felt about me”; Cronbach’s α = .79) and a five-item measure of destructive behaviors (e.g., “I yelled at him/her”; “I said something nasty or critical to him/her”; Cronbach’s α = .81). Perpetrator reporters completed analogous measures assessing perceptions of the victim’s constructive or destructive behavior after the victim became hurt or angry (i.e., “He/she yelled at me”; Cronbach’s α s = .74 and .82, respectively). Items were completed using 5-point response scales (1 = *not at all characteristic of how I [he/she] behaved*; 5 = *extremely characteristic of how I [he/she] behaved*).

Perpetrators’ responses. Using the same 5-point response scales, perpetrator reporters completed measures of the behaviors they enacted after victims became hurt or angry, including a five-item measure of constructive behavior (e.g., “I apologized”; “I was affectionate toward him/her”; Cronbach’s α = .81) and a four-item measure of destructive behavior (e.g., “I criticized him/her”; “I blamed him/her”; Cronbach’s α = .85). Victim reporters completed analogous items assessing their perceptions of perpetrators’ behavior (Cronbach’s α s = .86 and .91, respectively). Using 5-point response scales (1 = *very slightly or not at all*, 5 = *extremely*), perpetrator reporters also completed measures of their emotions at the end of the event, after the victim became hurt or angry, including a four-item measure of guilt (e.g., “Guilty”; “Sorry”; Cronbach’s α = .90); a four-item measure of empathic concern, which was adapted from prior research (Coke, Batson, & McDavis, 1978; e.g., “Warm”; “Compassionate”; Cronbach’s α = .83); and a four-item measure of anger or hostility (e.g., “Anger”; “Hostile”; Cronbach’s α = .89). Victim reporters completed analogous items assessing perceptions of the perpetrator’s emotions (Cronbach’s α s = .90, .91, and .91, respectively). Given that reports of perpetrators’ constructive behavior, empathy, and guilt were highly correlated (r s ranged from .60 to .67; Cronbach’s α = .84) and that analyses using the individual variables produced parallel results, we averaged these three variables to create a composite measure of perpetrators’ constructive responses for use in the primary analyses. Likewise, reports of perpetrators’ destructive behavior and anger or hostility were highly correlated (r = .75; Cronbach’s α = .84), and analyses using these individual variables produced parallel results. Hence, we averaged them to create an index of perpetrators’ destructive responses.

Relationship consequences. Victim reporters completed a seven-item measure assessing positive consequences of the event (e.g., “As a result of this event, I care more about our relationship”; “As a result of this event, this person treats me better”; “As a result of this event, overall our relationship is stronger”; Cronbach’s α = .94). They also completed a four-item measure assessing analogous negative consequences (e.g., “As a result of this event, I care less about our relationship”; “As a result of this event, our relationship is damaged”; Cronbach’s α = .92). Items were completed

⁵ The pattern of results was similar across participants reporting on romantic and nonromantic interactions. Ten participants did not follow instructions and described incidents involving family members or former romantic partners. We retained their responses in the statistical analyses.

on 9-point response scales (1 = *extremely disagree*, 9 = *extremely agree*). Participants assigned to the perpetrator condition completed analogous measures using the same response scales (Cronbach's α s = .89 and .87, respectively).

Results and Discussion

Each participant provided data relevant to two incidents. We tested our predictions using two-level regression models that modeled these two incidents as nested within each participant. A compound-symmetry error structure modeled the covariance of the criterion variable across the two incidents, which accounts for the nesting of the data. Our primary analyses examined effects of the continuous ratings of victims' hurt and anger intensity.⁶ We centered all continuous predictor variables on their sample means.

Effects of relational devaluation on hurt feelings and anger.

Using data provided by participants taking the perspective of victim, we regressed victims' hurt feelings and anger on the index of perpetrators' devaluation behaviors. Perpetrators' devaluation behaviors predicted victims' self-reports of their own hurt feelings, $b = 0.34$, $t = 7.42$, $p < .001$, and anger, $b = 0.40$, $t = 9.19$, $p < .001$. Likewise, using data provided by participants reporting from the perpetrator perspective, we found that perpetrators' devaluation behaviors predicted their perceptions of victims' hurt feelings, $b = 0.29$, $t = 5.97$, $p < .001$, and anger, $b = 0.21$, $t = 4.06$, $p < .001$. These results replicate prior findings suggesting that devaluation elicits hurt and anger.⁷

Victims' goals associated with hurt feelings and anger. We expected that victims' hurt feelings would be associated with their goal to restore acceptance from the perpetrator, whereas victims' anger would be associated with the goal to change the perpetrator's behavior (see Table 1). To test this prediction, we regressed victims' acceptance and behavior control goals on victims' hurt and anger. We controlled for perpetrators' devaluation behaviors to be sure that support for our predictions could not be explained by the association of victims' hurt or anger with devaluation behaviors, although results supported our predictions regardless of whether we included this control. Results for participants reporting from the victim perspective appear in the upper portion of Table 6.

Victims' hurt was associated with their goals to restore acceptance, whereas victims' anger was associated with their goals to control the perpetrator's behavior.

We sought to replicate these findings using data provided by participants reporting from the perspective of perpetrator. That is, do perpetrators understand that hurt and angry victims have different goals? Results of analogous models are displayed in the lower section of Table 6. Perpetrators' perceptions of victims' hurt predicted their inferences of victims' acceptance goals, whereas perpetrators' perceptions of victims' anger predicted their inferences of victims' behavior control goals. These results support our prediction that hurt and anger involve different goals, and they were consistent across participants taking victim and perpetrator perspectives.

Victims' hurt feelings and anger as commitment signals.

We expected that victims' hurt feelings would convey high levels of commitment to perpetrators, whereas victims' anger would convey low levels of commitment (see perpetrator responses in Table 1). Using data reported by participants taking the perspective of perpetrator, we regressed perpetrators' perceptions of victims' commitment during the incident on perpetrators' perceptions of victims' hurt feelings and anger. Again, we controlled for perpetrators' relational devaluation behaviors to be sure that results could not be explained by associations of hurt or anger with these devaluation behaviors, although results supported our prediction regardless of whether we included this control. Consistent with our predictions, perpetrators' perceptions of victims' hurt predicted perpetrators' greater inferences of victims' commitment, $b = 0.19$, $t = 2.29$, $p < .05$, whereas perpetrators' perceptions of victims' anger predicted perpetrators' inferences of reduced commitment, $b = -0.27$, $t = -3.3$, $p < .01$. Perpetrators' devaluation behaviors did not predict perceptions of commitment, $p = .56$. Thus, hurt and anger appeared to convey different messages to perpetrators regarding victims' commitment.

Destructive and constructive responses following hurt feelings and anger. Next we conducted parallel analyses to test predictions that victims' anger would elicit victims' and perpetrators' destructive behavior, whereas victims' hurt would elicit constructive responses (see Table 1). Results using data provided by participants taking the perspective of victim and perpetrator appear

Table 6
Effects of Perpetrators' Devaluation Behaviors, Victims' Hurt Feelings, and Victims' Anger on Victims' Goals (Study 2)

Predictor	Victims' goals	
	Acceptance	Behavior control
Victim perspective participants		
Perpetrators' devaluation behaviors	.46 (5.8)***	.40 (6.80)***
Victims' hurt feelings	.60 (6.18)***	-.05 (-0.71)
Victims' anger	-.14 (-1.41)	.40 (5.39)***
Perpetrator perspective participants		
Perpetrators' devaluation behaviors	.47 (5.61)***	.33 (5.01)***
Perpetrators' perception of victims' hurt feelings	.53 (4.89)***	0 (-0.05)
Perpetrators' perception of victims' anger	.03 (0.25)	.46 (5.63)***

Note. Unstandardized coefficients appear outside parentheses, and t values appear inside parentheses. Degrees of freedom ranged from 225 to 256. *** $p < .001$.

⁶ Our use of continuous ratings of hurt and anger affords stronger tests of our predictions relative to comparing the hurt accounts with the angry accounts because both types of accounts tended to be characterized by both hurt and anger (M hurt = 3.04 in the hurt accounts; M hurt = 2.64 in the angry accounts; M anger = 2.73 in the hurt accounts; M anger = 3.10 in the angry accounts). As a result, condition comparisons are constrained. They do not reflect a comparison of hurt (without anger) versus anger (without hurt).

⁷ As with the prior studies, we conducted additional analyses to examine whether hurt or anger mediated effects of perpetrators' devaluation behaviors on the other emotion. For example, do victims only feel angry following devaluation because devaluation hurt their feelings? When we controlled for victims' hurt, perpetrators' devaluation behaviors continued to predict victims' anger: victim perspective $b = 0.29$, $t = 6.49$, $p < .001$; perpetrator perspective $b = 0.14$, $t = 2.66$, $p < .01$. Likewise, when we controlled for victims' anger, perpetrators' devaluation behaviors continued to predict victims' hurt: victim perspective $b = 0.19$, $t = 4.03$, $p < .001$; perpetrator perspective $b = 0.23$, $t = 4.67$, $p < .001$. Hence, devaluation appeared to have independent pathways to victims' hurt and anger.

Table 7

Effects of Perpetrators' Devaluation Behaviors, Victims' Hurt Feelings, and Victims' Anger on Victims' and Perpetrators' Responses (Study 2)

Predictor	Victims' responses		Perpetrators' responses	
	Constructive	Destructive	Constructive	Destructive
Victim perspective participants				
Perpetrators' devaluation behaviors	0 (-0.02)	.14 (4.35)***	-.12 (-2.93)**	.19 (5.88)***
Victims' hurt feelings	.07 (1.39)	.02 (0.48)	.14 (2.69)**	-.05 (-1.29)
Victims' anger	-.13 (-2.57)*	.33 (8.32)***	-.03 (-0.58)	.22 (5.55)***
Perpetrator perspective participants				
Perpetrators' devaluation behaviors	.03 (0.74)	.04 (1.16)	.03 (0.85)	.09 (3.03)**
Perpetrators' perception of victims' hurt feelings	.08 (1.47)	.05 (1.28)	.23 (4.85)***	.05 (1.44)
Perpetrators' perception of victims' anger	-.07 (-1.27)	.40 (10.14)***	-.02 (-0.41)	.19 (5.41)***

Note. Unstandardized coefficients appear outside parentheses, and *t* values appear inside parentheses. Degrees of freedom ranged from 204 to 254. * $p < .05$. ** $p < .01$. *** $p < .001$.

in the upper and lower sections of Table 7, respectively. Victims' hurt, but not their anger, predicted increases in perpetrators' constructive responses, and this effect was replicated across both victim and perpetrator perspectives. In contrast, victims' anger, but not their hurt, predicted increases in their own and perpetrators' destructive responses, and these effects also were replicated across both victim and perpetrator perspectives. Hence, these results support our predictions regarding responses to victims' hurt and anger using data from participants reporting from both perspectives.

One prediction that was not supported was a positive association between victims' hurt feelings and their own constructive behavior. The effects were in the predicted direction, but they did not reach conventional significance levels. Perhaps greater statistical power would have enabled us to detect the effect. In the analyses previously reported, we reduced our statistical power by conducting separate analyses for victim and perpetrator reporters. When we combined these participants into a single analysis and tested the model again, we found that victims' hurt (self-reports of their own hurt or perpetrators' perceptions of victims' hurt) was marginally associated with their own greater constructive behavior, $b = 0.07$, $t = 1.79$, $p = .07$, whereas victims' anger was associated with their reduced constructive behavior, $b = -0.10$, $t = -2.78$, $p < .01$.

Relationship consequences of victims' hurt feelings and anger. Finally, we tested analogous models to examine the relationship consequences associated with victims' hurt and anger. The interpersonal consequences of hurt versus anger that we have shown and outlined in Table 1 should mean that hurt leads to more positive relationship consequences, whereas anger creates more negative relationship consequences. Results of models constructed with data provided by participants reporting from the victim perspective appear in the upper section of Table 8. Victims' anger predicted their increased reports of negative relationship consequences, whereas victims' hurt predicted their increased reports of positive relationship consequences. Results of models constructed with data provided by perpetrator perspective participants appear in the lower section of Table 8. Perpetrators' perceptions of victims' hurt predicted perpetrators' increased reports of positive relationship consequences. These results provide support for the prediction that victims' hurt feelings would be associated with positive relationship consequences in data provided from both victim and perpetrator perspectives. Support for the prediction that

victims' anger would be associated with negative relationship consequences was found in reports from the victim perspective.

Why should hurt and anger differ in their relationship consequences? As we stated earlier, anger should tend to produce negative relationship consequences due to the destructive responses that typically arise from anger, whereas the tendency for hurt to produce positive relationship consequences should occur due to the constructive responses that often follow hurt. In additional models, we added perpetrators' and victims' responses as mediators to explicitly test these assumptions. After controlling for victims' and perpetrators' destructive responses, we found that the effect of victims' anger on negative relationship consequences (which was previously significant for victim perspective participants) was no longer significant, $p = .78$. Perpetrators' destructive responses predicted negative relationship consequences in this model, $b = 0.66$, $t = 4.91$, $p < .001$. After controlling for victims' and perpetrators' constructive responses, we found that the effect of victims' hurt on positive relationship consequences (which was previously significant for victim and perpetrator perspective participants) was no longer significant, $ps > .12$. Instead, for victim perspective participants, perpetrators' constructive responses predicted positive relationship consequences, $b = 0.79$, $t = 8.08$, $p < .001$, and for perpetrator perspective participants, both perpetrators' constructive responses and victims' constructive responses

Table 8

Effects of Victims' Hurt Feelings and Anger on Relationship Consequences (Study 2)

Predictor	Relationship consequences	
	Positive	Negative
Victim perspective participants		
Perpetrators' devaluation behaviors	-.03 (-0.57)	.38 (5.69)***
Victims' hurt feelings	.21 (2.63)**	-.08 (-0.96)
Victims' anger	.02 (.25)	.16 (2.05)*
Perpetrator perspective participants		
Perpetrators' devaluation behaviors	.23 (3.77)***	.10 (1.89)†
Victims' hurt feelings	.17 (2.26)*	0 (0.96)
Victims' anger	-.10 (-1.33)	.10 (1.48)

Note. Unstandardized coefficients appear outside parentheses, and *t* values appear inside parentheses. Degrees of freedom ranged from 184 to 238. † $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

predicted positive relationship consequences, $b = 0.39$, $t = 3.53$, $p < .01$, and $b = 0.34$, $t = 3.58$, $p < .001$, respectively. These results confirm the hypothesis that constructive responses to hurt and destructive responses to anger explain their divergent relationship consequences.⁸

Summary. Victims' hurt feelings and anger were both predicted by perpetrators' relational devaluation behaviors, but they were associated with different goals and behavioral responses, and these differences were consistent with the distinctions outlined in Table 1. Replicating findings from Study 1, victims' hurt was associated with goals to restore the perpetrator's acceptance, whereas victims' anger was associated with goals to change the perpetrator's behavior. Also replicating findings from Study 1, victims' anger, but not hurt, was associated with victims' destructive behavior and reductions in constructive behavior. In fact, victims' hurt was associated with increased constructive behavior, although the effect was small.

New to Study 2 were findings regarding the commitment that hurt signals to perpetrators, perpetrators' responses to victims' hurt and anger, and the associated relationship consequences. Just as hurt and anger had countervailing effects on feelings of dependence (Studies 1a and 1b) and acceptance goals (Studies 1a, 1b, and 2), perpetrators in Study 2 inferred higher levels of commitment when victims were more hurt and perceived lower levels of commitment when victims were more angry. In addition, victims' hurt predicted perpetrators' constructive responses and positive relationship consequences, whereas victims' anger predicted perpetrators' destructive responses and negative relationship consequences. The links with relationship consequences also indicated that hurt had positive consequences for the relationship because hurt elicited victims' and perpetrators' constructive responses, whereas anger had negative consequences because anger elicited perpetrators' destructive responses.⁹ Most of our findings were replicated across victim and perpetrator perspectives, suggesting that they cannot be explained by biases that often arise as a result of taking one of these perspectives.

Study 3

In Study 3, we examined hurt feelings and anger using a daily report study of romantically involved couples. New to this study was our examination of relationship commitment as an antecedent of hurt feelings. As described previously, victims who are highly committed to a relationship with the perpetrator should be more likely to experience hurt feelings, and this would provide additional evidence, beyond the dependence and acceptance goals and behaviors examined in the prior studies, suggesting that hurt involves relationship maintenance concerns.

A second major contribution of Study 3 is the examination of dyadic and prospective processes. Our predictions regarding perpetrators' constructive responses to victims' hurt and destructive responses to victims' anger imply interpersonal processes in which one person's emotions elicit responses in his or her relationship partner. By incorporating both members of relationships in Study 3, we could more directly test these dyadic processes. Moreover, this study allowed us to test our predictions prospectively (e.g., effects of victims' daily emotions on perpetrators' responses the following day). We used this approach to test our predictions that

victims' hurt and perpetrators' perceptions of this hurt convey high commitment to perpetrators and elicit perpetrators' constructive responses, whereas victims' anger and perpetrators' perceptions of this anger convey low commitment and elicit destructive responses.

A third contribution of Study 3 is our attempt to replicate patterns across two levels of analysis. In addition to studying specific emotional states, emotion researchers have studied emotions in terms of trait tendencies to experience emotions (e.g., Watson & Clark, 1991; 1992), and it is likely that people have relatively stable tendencies to experience both hurt and anger. We examined whether the predictions we made for states of hurt and anger—in terms of their similar associations with relational devaluation, their distinct relations with victims' commitment, and the different messages they convey to perpetrators regarding victims' commitment—could be replicated at the trait level of analysis.

Method

Participants. A sample of 105 dating or married couples was recruited via advertisements on local bulletin boards, in newspapers, and on a psychology department subject pool website. Twenty-three couples were married or engaged or had a civil

⁸ We examined whether participants' gender moderated the effects of hurt and anger. Of 32 interactions examined, only one gender interaction was marginally significant; all other $ps > .10$. The one marginal interaction suggested that victims' anger predicted their behavioral control goals more strongly for female victims, $\beta = .56$, $t = 3.85$, $p < .001$, than for male victims, $\beta = .27$, $t = 2.8$, $p < .01$. However, this interaction was not significant in Studies 1a or 1b.

Our theorizing suggests the importance of modeling both hurt and anger effects because these variables are correlated. Indeed, victims' hurt and anger were positively associated, $\text{anger} \rightarrow \text{hurt}$ $b = 0.48$, $t = 8.97$, $p < .001$, as were perpetrators' perceptions of victims' hurt and anger, $b = 0.35$, $t = 5.77$, $p < .001$. We briefly summarize the notable changes that occurred when we excluded either hurt or anger, and, hence, we did not account for their association. Some previously nonsignificant effects of victims' hurt became marginal or significant when anger was excluded from the model, including an effect on victims' destructive behavior—victim perspective: $b = 0.13$, $p < .001$; perpetrator perspective: $b = 0.16$, $p < .001$ —and an effect on perpetrators' destructive behavior—perpetrator perspective only: $b = 0.10$, $p < .01$. In addition, for perpetrator perspective participants, victims' anger no longer predicted negative relationship consequences when hurt was not controlled, $p > .10$. Hence, victims' hurt seemed more destructive when victims' anger was excluded from the model, and victims' anger seemed less destructive when the positive effects of hurt were not controlled. However, all of the other findings reported in the text remained significant when one of the emotions was excluded.

⁹ As we stated earlier, a possible explanation of why hurt seemed to have less negative relationship consequences in our research relative to the research by Leary et al. (1998) is that our strategy of asking participants to select only recent events created a sample of events that were, on average, less severe than the sample obtained by Leary and colleagues. We used a 5-point response scale to measure hurt feelings that was comparable to the scale used by Leary and colleagues, allowing us to compare average hurt feelings across our studies. Indeed, victims in our study (those reporting on a hurtful event) reported less hurt ($M = 2.98$; $SD = 1.23$) than victims in the study by Leary and colleagues ($M = 4.0$, $SD = .81$), $t(130) = 9.51$, $p < .001$. In addition, perpetrators in our study (those reporting on a hurtful event) saw the victim as significantly less hurt, on average ($M = 3.12$, $SD = 1.21$), than did perpetrators in the study by Leary and colleagues ($M = 3.9$), $t(117) = -6.99$, $p < .001$. Hence, events in our sample were reported as less severe, on average, which may explain the difference in findings. Of course, we cannot be certain of the cause of the difference in findings given the many variables that likely vary across these two studies.

union. The remaining couples were dating. Three were same-sex female couples. The remaining 102 couples were heterosexual. Couples were predominately White and, on average, 24 years old. They received a payment of \$50 or research participation credit in a psychology class and entry in a \$100 lottery.

Procedure. The study was advertised as a study on daily events in relationships. Participants arrived to an initial laboratory session with their romantic partners to complete the baseline measures described in the following section (among others). Participants were instructed to start the daily report component the day following the laboratory session and to complete a daily report between 7 p.m. and midnight for a period of 7 consecutive days. Due to missing reports and the loss of data when we examined lagged effects, the number of daily observations included in the analyses ranged from 1,058 to 1,130. Daily items described in the following text were embedded in a larger questionnaire. Hence, participants likely did not perceive a focus on hurt feelings and anger.

Baseline measures.

Chronic relationship commitment. During the baseline session, participants completed six items assessing relationship commitment, which were adapted from the Investment Model Scale (Rusbult, Martz, & Agnew, 1998; e.g., "I want our relationship to last for a very long time"; "I am committed to maintaining my relationship with this person"). Items were completed on 9-point scales (1 = *extremely disagree*, 9 = *extremely agree*; Cronbach's $\alpha = .82$).

General proneness to anger and hurt. Participants completed four items assessing proneness to anger, which were adapted from the Multidimensional Anger Inventory (Siegel, 1986). Items assessed the frequency, duration, and extremity of anger toward the partner (e.g., "I frequently get angry with this person"; "When I get angry at this person, I stay angry for hours"; Cronbach's $\alpha = .88$). They also completed four analogous items assessing frequency, duration, and extremity of hurt feelings (e.g., "It is easy for this person to hurt my feelings"; Cronbach's $\alpha = .85$). Items were completed using the 9-point response scales described previously. Participants also completed analogous measures of their perceptions of their partner's proneness to anger (e.g., "This person frequently gets angry with me"; Cronbach's $\alpha = .91$) and proneness to hurt (e.g., "This person frequently feels hurt by me"; Cronbach's $\alpha = .84$).

Chronic perception of the partner's valuing. Participants completed a four-item measure of their perceptions of their partner's regard (e.g., "This person thinks I have a number of good characteristics"; Cronbach's $\alpha = .80$); a six-item measure of their perceptions of their partner's commitment, which was adapted from the Investment Model Scale (Rusbult et al., 1998; e.g., "This person wants our relationship to last for a very long time"; Cronbach's $\alpha = .91$); and a 10-item measure of their perception of their partner's care for their welfare, which was adapted from the Communal Strength Scale (Mills, Clark, Ford, & Johnson, 2004; e.g., "This person would go out of his/her way to help me"; Cronbach's $\alpha = .91$). Items were completed using the 9-point response scales described earlier. Perceived regard, commitment, and care scales were strongly correlated (r s ranged from .54 to .77). Hence, they were averaged to create a composite index of perceived partner valuing of the relationship (Cronbach's $\alpha = .85$).

Daily measures.

Daily hurt feelings and anger. Each day, participants completed two items assessing their hurt feelings and anger caused by

their partner (i.e., "To what extent did this person hurt your feelings today?"; "How angry did you feel toward this person today?"). Items were completed on 9-point response scales (1 = *not at all*, 9 = *extremely*).

Daily perception of partner's hurt feelings and anger. Participants completed two analogous items assessing perceptions of their partner's hurt feelings and anger using the same 9-point response scales (e.g., "To what extent were this person's feelings hurt by you today?").

Daily perception of partner's commitment. Participants completed a single item assessing perceptions of their partner's commitment (e.g., "For how much longer does your partner want your relationship to last today?") using a 9-point response scale (1 = *end now*, 9 = *last forever*).

Daily valuing of partners and perceived partner valuing. Participants completed four items assessing their valuing of the relationship with their partner, including commitment (i.e., "For how much longer do you want your relationship to last with this person today"; 1 = *I want it to end now*, 9 = *forever*), regard for the partner (i.e., "Overall, how do you view this person today?" 1 = *extremely negatively*, 9 = *extremely positively*), and care (i.e., "How concerned for this person's well-being were you today?"; "How motivated were you to attend to this person's needs today?"; 1 = *not at all*, 9 = *extremely*; Cronbach's $\alpha = .74$). They also completed analogous items assessing their perceptions of their partner's valuing using the same 9-point scales (e.g., "How did this person view you today"; Cronbach's $\alpha = .77$).

Daily guilt. Participants completed a single item assessing daily guilt (i.e., "Today, how much did you feel guilty or sorry about how you have treated your study partner?"), which was completed on 9-point response scales (1 = *not at all guilty*, 9 = *extremely guilty*).

Results and Discussion

Analysis strategy. Some of our predictions involved only the measures administered during the baseline session. To test these predictions, we used multilevel regression models (using the SAS MIXED procedure) that treated the two dyad members as nested within dyads and specified a compound-symmetry error structure to estimate the covariance between the two dyad members on the criterion variable, which accounts for potential dyadic interdependence (Kenny, Kashy, & Cook, 2006). Due to limited degrees of freedom in these types of designs, we modeled slopes as fixed. We refer to this type of model as a *person-level model*.

Other predictions involved variables measured at the daily level. We tested these hypotheses using multilevel regression models that modeled days and people as nested within dyad. The models estimated person-level intercepts, which represent participants' average score on the criterion variable across days, as well as the correlation of these intercepts across the two dyad members. In addition, the models estimated correlations of the day-specific residuals across the two dyad members (Kenny et al., 2006). The daily predictor variables were centered on each person's mean. Hence, they are orthogonal to individual difference variables and their effects represent within-person effects. Again, we continued to model the slopes as fixed, given the limited degrees of freedom and to address model convergence problems. We refer to this type of model as a *day-level model*.

To clarify presentation of results, we use the term *perpetrators* to refer to participants who were responding to their partner's hurt or anger, and we use the term *victims* to refer to the partner who may have been hurt or angry, although it is important to note that all participants provided data relevant to both roles. That is, in some observations, Partner A provided data relevant to the victim role and Partner B provided data relevant to the perpetrator role. In other observations, Partner A provided data relevant to the perpetrator role and Partner B provided data relevant to the victim role.

Effects of relational devaluation on hurt feelings and anger.

We expected to replicate prior findings suggesting that relational devaluation predicts both hurt feelings and anger. We tested this prediction in "chronic" and "state" forms. With regard to evidence for chronic processes, using the person-level model, we regressed victims' hurt and anger proneness on their chronic perceptions of relational valuing (all administered during the baseline session). Consistent with our prediction and prior findings, victims' perceptions of perpetrators' relational valuing was inversely associated with victims' reports of their hurt proneness, $b = -0.90$, $t = -8.77$, $p < .001$, and anger proneness, $b = -0.91$, $t = -9.43$, $p < .001$.

To test the same prediction in terms of state feelings of hurt and anger, we used the day-level model and regressed victims' daily hurt and anger on their daily perceptions of the perpetrator's valuing. Daily perceived valuing was inversely associated with victims' daily hurt, $b = -0.56$, $t = -17.34$, $p < .001$, and daily anger, $b = -0.53$, $t = -15.64$, $p < .001$. Hence, at both the chronic and daily levels of analysis, relational devaluation predicted both hurt and anger.¹⁰

Commitment as a vulnerability to hurt feelings. We expected that highly committed victims would be especially likely to feel hurt in response to perceived devaluation by perpetrators. Again, we tested this prediction with regard to chronic and state responses. Using the person-level model, we regressed victims' general hurt proneness on their chronic relationship commitment, their chronic perceptions of the perpetrator's relational valuing (all measured during the baseline session), and a product term representing their interaction. Our prediction regarding commitment and hurt was with regard to the unique component of hurt—the variance of hurt that does not overlap with anger, as we did not expect that commitment to be associated with a vulnerability to anger (or general emotional volatility). Hence, to conduct a more focused test of our prediction and to be sure that findings could not be explained by anger, we controlled for victims' general anger proneness (for a similar approach, see Tangney et al., 1996; Tangney, Wagner, Fletcher, et al., 1992). The Chronic Commitment \times Chronic Perceptions of the Partner's Valuing interaction predicted hurt proneness, $b = -0.17$, $t = -1.95$, $p = .05$. Predicted values are presented in Figure 1. We examined conditional effects of chronic perceived partner valuing at low (1 *SD* below the mean) and high (maximum score, which was slightly lower than 1 *SD* above the mean) levels of commitment. Consistent with our prediction, the link between victims' perceptions of the perpetrator's valuing and victims' hurt proneness was stronger for highly committed victims, $b = -0.72$, $t = -5.25$, $p < .001$, than for victims who were low in commitment, $b = -0.36$, $t = -2.48$, $p < .05$.

Does commitment create the same vulnerability to anger? When we regressed victims' general anger proneness on an analogous set

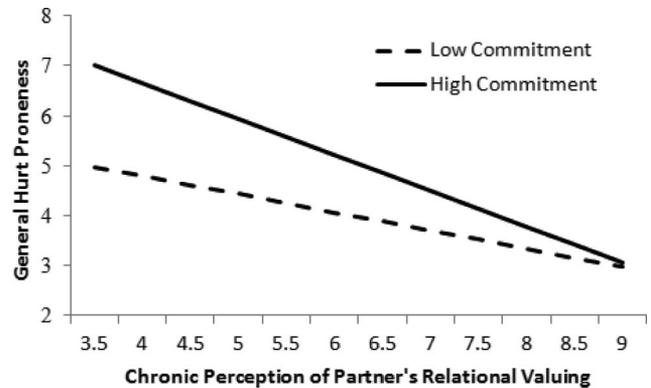


Figure 1. General hurt proneness as a function of relationship commitment and chronic perceptions of the partner's valuing of the relationship (Study 3).

of predictors (victims' chronic relationship commitment, chronic perception of the perpetrator's valuing, their interaction, and victims' hurt proneness), we did not find the same Commitment \times Perceived Valuing interaction, $p > .54$. Hence, commitment was not associated with vulnerability to anger.

We used the day-level model and daily measures of hurt feelings, anger, and perceived partner valuing to test this same prediction in terms of state feelings of hurt and anger. We expected that chronically committed victims would be especially likely to experience hurt feelings on days they felt devalued by perpetrators. We regressed victims' daily hurt feelings on their daily perceptions of the perpetrator's valuing, their chronic commitment to the perpetrator, and a product term representing their interaction. Again, we controlled for victims' daily anger to examine the aspect of hurt that is not correlated with anger and to be sure that daily anger did not explain the effect. The Commitment \times Daily Perceived Valuing interaction was a significant predictor of victims' daily hurt feelings, $b = -0.04$, $t = -1.98$, $p < .05$, and is plotted in Figure 2. Consistent with our prediction, highly committed victims (1 *SD* above the mean) exhibited a greater inverse relation between daily perceived partner valuing and daily hurt feelings, $b = -0.28$, $t = -7.72$, $p < .001$, relative to victims low in commitment, $b = -0.20$, $t = -6.13$, $p < .001$. A parallel model examining daily feelings of anger did not reveal a Commitment \times Daily Perceived Partner Valuing interaction, $p > .12$. Hence, chronic relationship commitment moderated the effect of daily perceived devaluation on daily hurt feelings and not daily anger.

¹⁰ As in our prior studies, we conducted additional analyses to discern whether relational devaluation was uniquely associated with hurt and anger proneness or whether one of these emotional experiences was primary and mediated effects of relational devaluation on the other. Perceived valuing by the perpetrator continued to predict victims' anger proneness while their hurt proneness was controlled, $b = -0.43$, $t = -4.97$, $p < .001$, and it continued to predict victims' hurt proneness while anger proneness was controlled, $b = -0.32$, $t = -3.25$, $p < .01$. Similarly, daily perceived valuing predicted victims' daily hurt feelings while their daily anger was controlled, $b = -0.23$, $t = -8.42$, $p < .001$, and it predicted victims' daily anger while their daily hurt was controlled, $b = -0.20$, $t = -6.84$, $p < .001$. Hence, neither emotional experience appeared to mediate effects of devaluation on the other.

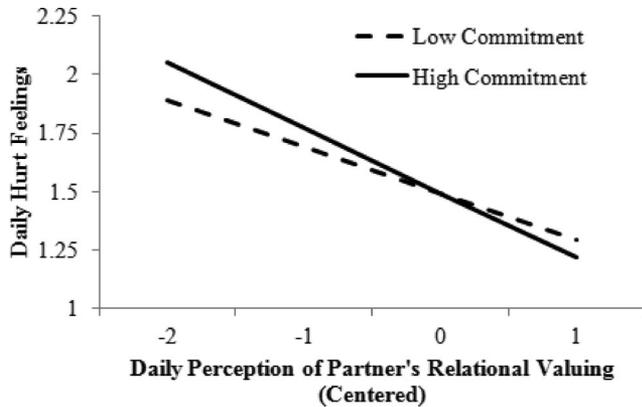


Figure 2. Daily hurt feelings as a function of relationship commitment and daily perceptions of the partner's valuing of the relationship (Study 3).

Victims' hurt feelings as a commitment signal. Next we tested the prediction that victims' hurt feelings function to signal high levels of commitment to perpetrators, whereas victims' anger signals low commitment. Again, we tested this prediction in both chronic and state forms. With regard to chronic processes, we regressed perpetrators' chronic perceptions of victims' commitment on victims' self-reported general proneness to hurt feelings and anger (all administered during the baseline session) using the person-level modeling strategy described earlier. Victims' self-reported proneness to hurt feelings was positively associated with perpetrators' perceptions of victims' commitment, $b = 0.19$, $t = 2.76$, $p < .01$, whereas victims' self-reported proneness to anger was inversely associated with perpetrators' perceptions of victims' commitment, although this effect did not reach conventional significance levels, $b = -0.10$, $t = -1.51$, $p = .13$.

A limitation of this analysis is that it assumes that perpetrators correctly understood victims' emotional tendencies, but errors in understanding may have weakened the links between victims' emotional tendencies and perpetrators' perceptions of commitment. Perpetrators' perceptions of victims' emotions may be more proximally related to their responses (i.e., perpetrators must decode victims' hurt as hurt before they infer high commitment). Hence, in a second analysis, we replaced victims' baseline self-reports of their own hurt and anger proneness with perpetrators' baseline perceptions of victims' hurt and anger proneness. Consistent with our predictions, perpetrators' perception of victims' hurt proneness was positively associated with perpetrators' perception of victims' commitment, $b = 0.31$, $t = 4.69$, $p < .001$, whereas perpetrators' perception of victims' anger proneness was inversely associated with perpetrators' perception of victims' commitment, $b = -0.36$, $t = -6.13$, $p < .001$. These results support our view that hurt and anger communicate divergent messages about victims' commitment using trait measures of hurt and anger proneness.

We tested these predictions in terms of states by using the day-level model described earlier. The daily component permitted us to examine these effects in a prospective manner that established temporal precedence. We examined the effects of victims' daily hurt feelings and anger on a given day (i.e., on day d), on perpetrators' subsequent (i.e., on day $d + 1$) perceptions of vic-

tims' commitment. To model change in this outcome, we controlled for perpetrators' initial (i.e., on day d) perceptions of victims' commitment. In addition, to rule out the alternative explanation that these findings are explained by victims' feeling devalued by perpetrators (we reported associations of victims' daily hurt feelings and anger with their daily perceptions of devaluation in preceding text), we also controlled for victims' daily perceptions of devaluation (i.e., on day d), although results supported our predictions regardless of whether we included this control.¹¹ In the model using victims' self-reports of their daily emotion, victims' anger tended to predict temporal declines in perpetrators' perceptions of victims' commitment, $b = -0.06$, $t = -1.74$, $p = .08$. In contrast, male victims' hurt feelings tended to predict temporal increases in female perpetrators' perceptions of victims' commitment, $b = 0.09$, $t = 1.93$, $p = .05$. (The effect of female victims' hurt feelings was not significant, $p = .18$.)

Again, to address potential issues with perpetrators not detecting victims' emotions, we tested a second model in which we replaced victims' self-reports of their own emotions with perpetrators' perceptions of victims' emotions. Male perpetrators' perceptions of female victims' anger predicted temporal decreases in their perceptions of these victims' commitment, $b = -0.16$, $t = -4.51$, $p < .001$. (The effect was not significant for female perpetrators, $p > .86$.) In addition, male and female perpetrators' perceptions of victims' hurt feelings tended to predict temporal increases in their perceptions of victims' commitment, $b = 0.06$, $t = 1.71$, $p < .09$. These results support our predictions at a state level—victims' daily hurt feelings appeared to signal high commitment to perpetrators, whereas victims' daily anger appeared to signal low commitment.

Perpetrators' responses to victims' daily hurt feelings. Next, using the same time-lagged "day-level" analysis strategy described earlier, we examined perpetrators' subsequent responses to victims' daily hurt feelings and anger (and perpetrators' perceptions of victims' emotions). Whereas perpetrators likely behaved in ways that communicated devaluation on days they elicited victims' hurt feelings and anger, they are likely to respond quite differently the following day as a function of whether victims felt hurt or anger. We used three outcome measures to index perpetrators' responses, including their daily valuing of the victim (i.e., care, commitment, and regard), their daily guilt, and their daily anger. We examined the effects of victims' daily hurt feelings and anger on the perpetrator's responses the following day. We included the same controls described earlier. We controlled for the lagged assessment of the criterion to model change. To be sure that effects of hurt and anger were not explained by the association with victims' perceived devaluation, we controlled for victims' daily perceived devaluation, although, again, support for our predictions did not depend on including this control. These control variables were measured on the same day as the emotion predictors.

¹¹ We did not control for victims' perceptions of devaluation in the trait analyses described because that model used only concurrent measures. As a result, including victims' perceived devaluation as a control would render the model nonrecursive (i.e., perceived partner commitment serving as both a covariate, as part of the perceived devaluation composite, and an outcome).

Results of analyses of victims' self-reported daily hurt feelings and anger appear in the upper section of Table 9. Victims' self-reported daily hurt feelings predicted increases in perpetrators' valuing of victims and decreases in perpetrators' anger toward victims the following day. In contrast, victims' self-reported daily anger predicted decreases in perpetrators' valuing of victims and increases in perpetrators' anger toward victims the following day.

Again, we tested analogous models in which we replaced victims' daily self-reports of emotion with perpetrators' daily perceptions of victims' emotion. Results are presented in the lower section of Table 9. Perpetrators' perceptions of victims' hurt predicted increases in their valuing of victims, increases in their guilt, and decreases in their anger the following day. In contrast, perpetrators' perceptions of victims' anger predicted decreases in perpetrators' valuing of victims (female victims only) and increases in their anger toward victims the following day. These results are consistent with our predictions. Victims' hurt (and perpetrators' perceptions of this hurt) predicted perpetrators' constructive responses the following day and reduced anger, whereas victims' anger (and perpetrators' perceptions of this anger) had opposite effects.¹²

Summary. This study provided support for several of the distinctions between hurt and anger outlined in Table 1. Victims' perceived devaluation predicted hurt and anger, and victims' chronic relationship commitment moderated the effect on hurt feelings but not on anger, which suggests that vulnerability to hurt reflects felt desire or need for a relationship with the perpetrator. Consistent with this logic, victims' hurt appeared to signal high commitment to perpetrators, whereas victims' anger appeared to convey low commitment. Support for all of these predictions was found using both trait measures of proneness to hurt and anger and daily measures of hurt and anger. Lagged daily analyses also suggested that perpetrators tried to make amends on days after they hurt victims' feelings (i.e., increased care for the partner, increased commitment to the relationship, increased guilt, and decreased anger), whereas perpetrators did not appear to make amends, and experienced more anger, on days after they made victims' angry. These results are consistent with our predictions that victims' hurt feelings and anger would elicit divergent responses from perpetrators.

Study 4

In our final study, we examined the behavioral responses that follow from hurt and anger within ongoing interactions using a behavioral observation measure. Members of romantic dyads were asked to discuss ways they wanted their partner to change, which could elicit the partner's hurt feelings or anger. These interactions were recorded, and we coded relationship-constructive and relationship-destructive behavioral responses. We tested predictions regarding the associations of victims' hurt feelings and anger with victims' and perpetrators' behavior. In addition, we attempted to replicate the finding reported previously suggesting that commitment involves a vulnerability to hurt feelings but not anger.

Method

Participants. One hundred and eighty heterosexual couples responded to article and electronic announcements posted across a

New Zealand university and associated student-based organizations. All notices informed potential participants that couples had to have been involved for at least 1 year. Sixty-one percent of the sample were living together or married, and the mean length of relationships was 2.95 years ($SD = 2.26$). Participants ranged from 18 to 45 years of age ($M = 23.07$, $SD = 4.18$). Couples were paid NZ\$70 for participation in a 3-hr session.

Procedure. Participants completed scales assessing relationship commitment and perceptions of the partner's commitment and then identified and ranked in order of importance three aspects of their *partner* that they wanted to improve and which they understood would be discussed in the next phase of the study. The most important ranked feature from each dyad member was selected for discussion. Couples then had two 7-min discussions that were unobtrusively recorded. In one discussion, couples discussed the feature the man wanted to change about his female partner, and in the other, couples discussed the feature the woman wanted to change about her male partner. Order of discussion was counter-balanced across couples. After completing both discussions, partners were directed to separate rooms where they reviewed their discussions and reported on their hurt and anger during the discussion (among other questions). This type of review procedure provides a sensitive measure of people's subjective emotions during their discussions (see Welsh & Dickson, 2005).

Measures.

Relationship commitment. Responses to five items from the Investment Model Scale (Rusbult et al., 1998) were averaged to index participants' commitment to their relationship (e.g., "I am committed to maintaining my relationship with my partner"). Items were completed using 7-point response scales (1 = *not at all*, 7 = *extremely*; Cronbach's $\alpha = .88$ and $.86$ for women and men, respectively).

Perception of the partner's commitment. Participants completed an analogous five items to assess perceptions of their partner's commitment (e.g., "My partner is committed to maintaining his/her relationship with me"). Items were completed using

¹² Hurt and anger were positively associated at the daily level, anger \rightarrow hurt $b = 0.68$, $t = 34.69$, $p < .001$, as were perpetrators' perceptions of victims' hurt and anger, perceived partner anger \rightarrow perceived partner hurt $b = 0.53$, $t = 26.83$, $p < .001$. We conducted additional analyses of perpetrators' responses using only hurt or anger to examine the effects of ignoring these associations. In models examining effects of victims' self-reported emotions, effects of victims' hurt and anger on perpetrators' subsequent valuing were no longer significant, $ps > .26$, the effect of victims' anger on perpetrators' subsequent anger was no longer significant, $p > .47$, and the effect of victims' hurt on perpetrators' subsequent anger became marginal, $b = -0.06$, $p < .10$. In models examining perpetrators' perceptions of victims' emotions, the effect of perceived hurt on perpetrators' subsequent valuing was no longer significant, $p > .13$, the effect of perceived hurt on perpetrators' subsequent guilt remained significant, $b = 0.11$, $p < .05$, the effect of perceived hurt on perpetrators' subsequent anger was marginal, $b = -0.06$, $p < .10$, the effect of perceived anger on male perpetrators' subsequent valuing remained significant, $b = -0.08$, $p < .05$, and the effect of perceived anger on perpetrators' anger was not significant, $p > .30$. Hence, about half of the effects were no longer observed. For these, victims' hurt appeared less constructive and victims' anger appeared less destructive when the direct effects of each emotion were not distinguished from their indirect effects via the association between the two emotions. These results underscore the importance of examining the independent effects of hurt and anger.

Table 9

Effects of Victims' Hurt and Anger (Upper Section) and Perpetrators' Perceptions of Victims' Hurt and Anger (Lower Section) on Changes in Perpetrators' Valuing of Victims, Guilt, and Anger (Study 3)

Predictor	Perpetrators' response		
	Valuing partner	Guilt	Anger
Models examining victims' self-reported emotion			
Lagged criterion	-.07 (-1.98)	-.12 (-3.21)**	-.11 (-3.47)***
Victims' perceived valuation	.13 _M (2.57)*; -.04 _W (-0.72)	-.09 (-1.72) [†]	-.01 (-0.21)
Victims' self-reported hurt	.09 (2.36)*	.03 (0.49)	-.14 (-3)**
Victims' self-reported anger	-.08 (-2.28)*	.05 (0.98)	.12 (2.63)**
Models examining perpetrators' perceptions of victims' emotion			
Lagged criterion	-.07 (-1.82) [†]	-.15 (-3.89)***	-.14 (-4.05)***
Victims' perceived valuation	.16 _M (3.47)***; -.04 _W (-0.93)	-.10 (-2.10)*	-.01 (-0.33)
Perpetrators' perception of victims' hurt	.07 (2.11)*	.12 (2.08)*	-.10 (-2.3)*
Perpetrators' perception of victims' anger	.05 _M (1.18); -.11 _W (-2.97)*	.0 (-0.05)	.07 (1.97)*

Note. Unstandardized coefficients appear outside parentheses, and *t* values appear inside parentheses. Coefficients with the subscript "M" are coefficients for male victims. Coefficients with the subscript "W" are coefficients for female victims. Coefficients without subscripts did not significantly vary across gender. Degrees of freedom ranged from 672 to 923.

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

the same 7-point response scales (Cronbach's $\alpha = .89$ and $.78$ for women and men, respectively).

Assessing hurt and anger within the discussion. Participants watched both of their discussions in 30-s segments. At the end of each 30-s section of the discussion, the recording was stopped, and using the same 7-point response scales, participants rated the degree to which they felt "angry" and "hurt" during that segment of the discussion.

Coding behavior. Six trained coders who were unaware of participants' responses to self-report measures independently rated the extent to which each partner exhibited destructive and constructive communication behavior. The specific behaviors were selected for their consistency across major coding systems of relationship conflict behavior and have been shown to predict important relationship outcomes, such as problem resolution (see Overall, Fletcher, Simpson, & Sibley, 2009). Ratings of *destructive communication* captured harsh and aggressive strategies, such as derogating and blaming the partner, being hostile and demanding, and invalidating or rejecting the partner. Ratings of *constructive communication* indexed the degree to which intimates attempted to soften conflict and maintain positivity via affection and positive affect (e.g., affiliative humor), accommodation, and validation.

Coders were given a detailed description of destructive and constructive communication, including a list of associated tactics, and were instructed to take into account the frequency, intensity, and duration of each set of behaviors for each 30-s segment of the discussion (1–2 = *low*, 3–5 = *moderate*, 6–7 = *high*). The behaviors exhibited by men and women were coded in separate viewings. For half of the discussions, men were coded first; for the other half, women were coded first. Between two and four coders from the team of six rated each participant, and ratings were averaged across coders to index the amount of destructive (intraclass correlation coefficient [ICC] = .91) and constructive (ICC = .86) behavior exhibited in each 30-s segment of the discussion.

Results

Analysis strategy. We used the individual discussion segments (14 per discussion) as the units of analysis. Our multilevel analysis strategy was similar to the day-level strategy we used in Study 3, except that discussion segments, rather than days, were the repeated measurements at the lowest level of analysis. The models estimated an intercept for each discussion and variances of these intercepts across dyads. These variance estimates account for the interdependence due to repeated segments belonging to the same discussion. In addition, the models estimated the covariance between these two intercepts within the same dyad, which models the interdependence due to having each dyad participate in two discussions. A repeated statement allowed for separate residual error variances (at the level of the discussion segment) for men and women and estimated the covariance between these errors. To address model convergence problems, we modeled the slopes as fixed.

Gender interactions were examined for all effects. When they were significant, separate conditional effects for men and women are reported. Again, we used the terms perpetrators and victims to clarify presentation of results, although all participants provided data relevant to both roles. Perpetrators were participants who were discussing ways they would like their partner to change. Victims were their romantic partners, whose hurt feelings and anger were of interest.

Commitment as a hurt vulnerability. We expected that victims' commitment would amplify effects of perpetrators' destructive behavior on victims' hurt feelings. To test this prediction, we regressed victims' hurt feelings on perpetrators' destructive behavior during the same interaction segment, victims' chronic relationship commitment, and a product term representing their interaction. Consistent with the model in Study 3, we controlled for victims' anger to examine the unique aspect of hurt and to be sure that findings were not explained by anger. Predictors were grand-mean centered. The Perpetrators' Destructive Behavior \times Victims' Commitment interaction predicted victims' hurt feelings, $b = 0.03$,

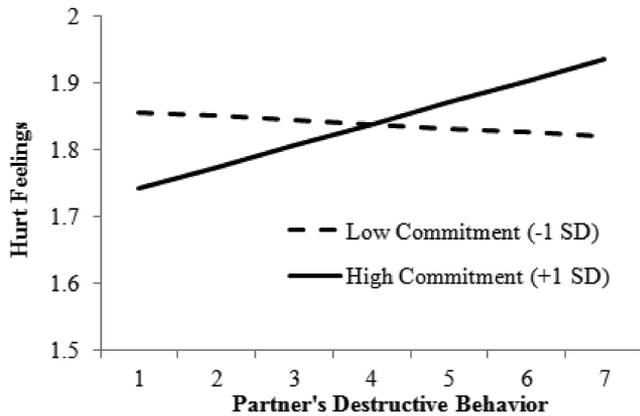


Figure 3. Victims' hurt feelings as a function of victims' relationship commitment and perpetrators' destructive behavior (Study 4).

$t = 1.95, p = .05$. Predicted values are presented in Figure 3. Conditional effects of perpetrators' destructive behavior were examined at low (1 *SD* below the mean) and high (1 *SD* above the mean) levels of victims' relationship commitment. Perpetrators' destructive behavior was positively associated with victims' hurt feelings for high-commitment victims, $b = 0.04, t = 1.85, p < .07$, but not for low-commitment victims, $p > .72$. This pattern supports our prediction.

Did commitment also involve a vulnerability to anger? We tested a similar model in which we predicted victims' anger from perpetrators' destructive behavior and victims' commitment while controlling for victims' hurt. The Destructive Behavior \times Commitment interaction also was significant in this model, $b = -0.03, t = -2.31, p < .05$. Predicted values are plotted in Figure 4. In a pattern opposite to that reported previously, perpetrators' destructive behavior was more strongly predictive of victims' increased anger for low-commitment victims, $b = 0.10, t = 6.33, p < .001$, relative to high-commitment victims, $b = 0.05, t = 2.65, p < .01$. Hence, commitment was associated with more hurt reactivity but less anger reactivity.

Behavioral responses to hurt and anger. Next we tested prospective effects of victims' hurt and anger on perpetrators' and victims' behavioral responses. These models examined effects of victims' hurt feelings and anger in a given discussion segment (segment t) on victims' and perpetrators' constructive and destructive behavior in the following segment (segment $t + 1$). To model residualized change, we controlled for the assessment of the behavioral criterion occurring during the same segment as the victims' emotion predictors (during segment t). Consistent with the day-level analyses in Study 3, we person-centered the predictors to isolate within-person effects.

We expected that victims' anger, but not hurt, would predict their own subsequent destructive responses, and we speculated that victims' hurt might predict their own subsequent constructive responses. As shown in the first two columns of Table 10, victims' anger predicted decreases in victims' constructive behavior and increases in their destructive behavior during the subsequent discussion segment. In contrast, victims' hurt did not predict victims' constructive behavior, and for male victims, their hurt predicted decreases in their destructive behavior. We also expected that

victims' anger would predict perpetrators' destructive responses, whereas victims' hurt would predict perpetrators' constructive responses. As shown in the last two columns of Table 10, these predictions were supported.

Summary. This study provided additional support for our predictions using behavioral observation measures. Victims' relationship commitment predicted increased hurt reactivity and decreased anger reactivity in response to perpetrators' destructive behavior, indicating that hurt and anger vary in the extent to which they reflect dependence and relationship maintenance concerns. In addition, victims' hurt predicted increases in perpetrators' constructive reactions, whereas victims' anger predicted increases in their own and perpetrators' destructive reactions.

General Discussion

The experiences, consequences, and functions of hurt feelings and anger have not been clearly differentiated in prior research. Consistent with our predictions outlined in Table 1, our findings suggest that the experience of hurt feelings involves perceived devaluation by a needed partner and a desire to restore connection and security in the partner's care for the self. Expressing hurt conveys victims' relationship dependence and need for support to perpetrators, and then perpetrators tend to enact constructive responses that contribute to relationship repair. Hence, an important social function of hurt appears to be the expression and maintenance of interpersonal connection. Anger, in contrast, involves a sense of independence and control, is associated with the motivation to coerce perpetrators to change their behavior and seems to further exacerbate relationship difficulties over and above perpetrators' initial behavior. In following text, we review the supportive evidence from our four studies, which provide strong and consistent support for the distinctions between hurt and anger outlined in Table 1.

The Victim's Experience

The results across four studies supported our view that the capacity to feel hurt reflects victims' vulnerability to psychological pain at the hands of the perpetrator, and this vulnerability is the result of wanting or needing a relationship with the perpetrator.

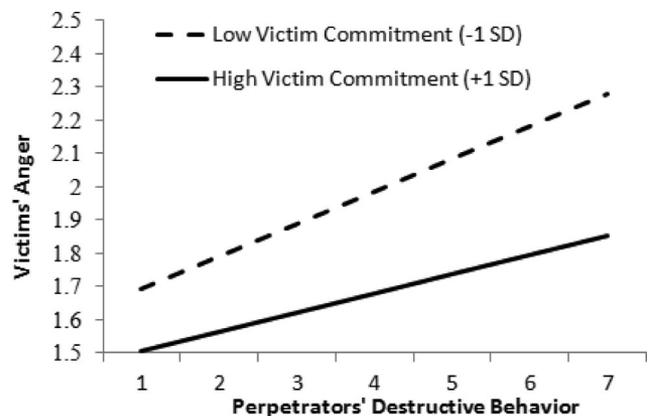


Figure 4. Victims' anger as a function of victims' relationship commitment and perpetrators' destructive behavior (Study 4).

Table 10
Effects of Victims' Emotions on Victims' Subsequent Constructive and Destructive Behavior (Study 4)

Predictor	Victims' subsequent behaviors		Perpetrators' subsequent behaviors	
	Constructive	Destructive	Constructive	Destructive
Lagged criterion	.18 (11.92) ^{***}	.22 (14.48) ^{***}	.17 (10.64) ^{***}	.24 (15.86) ^{***}
Perpetrators' destructive behaviors	-.02 (-1.65) [†]	.03 (2.31) [*]	-.05 (-3.17) ^{**}	—
Victims' hurt	0 (-.27)	-.06 _M (-2.89) ^{***} ; 0 _W (-0.20)	.03 (2.45) [*]	-.02 (-1.34)
Victims' anger	-.03 (-1.87) [†]	.07 (5.05) ^{***}	0 (-0.08)	.04 (2.72) ^{**}

Note. Unstandardized coefficients appear outside parentheses, and *t* values appear inside parentheses. Coefficients with the subscript "M" are coefficients for men. Coefficients with the subscript "W" are coefficients for women. Coefficients without subscripts did not significantly vary across gender.

[†] $p < .10$. ^{*} $p < .05$. ^{**} $p < .01$. ^{***} $p < .001$.

Further, we proposed that an experience of hurt occurs when this vulnerability is met with perceived devaluation by the perpetrator. Accordingly, we expected that the experience of hurt would be characterized by a subjective sense of vulnerability to pain and dependence on a relationship with the perpetrator. Moreover, hurt should be associated with reduced perceptions of control. Given their dependence on acceptance, which is currently in question, hurt individuals should feel powerless. In addition, given the sense of wanting and needing a relationship with the perpetrator, we expected that the primary goal characterizing the experience of hurt would involve restoring the perpetrator's positive valuing of the relationship. As such, hurt victims should be unlikely to engage in destructive behavior that would further jeopardize the relationship and may even engage in constructive behavior. In contrast, many prior studies have suggested that anger is characterized by perceptions of independence, invulnerability, and control (for a review, see Lerner & Tiedens, 2006) and that anger involves the goal of changing the perpetrator's aversive behavior through coercion or punishment (Fischer & Roseman, 2007). Consequently, anger should predict victims' destructive behavior.

Our findings support our view that hurt and anger differ in these ways. In Studies 1a and 1b, the intensity of victims' hurt feelings in prior events was positively associated with their subjective sense of vulnerability and dependence during those events, and it was negatively associated with perceptions of control and power. Moreover, victims who were high in commitment to perpetrators exhibited greater proclivity for hurt feelings relative to victims who were low in commitment, suggesting that hurt arises out of victims' desires to maintain relationships. This pattern was found using self-reported general hurt proneness in response to global perceptions of devaluation (Study 3), daily hurt feelings in response to daily perceptions of devaluation (Study 3), and momentary hurt in response to destructive behavior within ongoing interactions (Study 4). Findings regarding goals also were consistent with predictions. The intensity of hurt was associated with goals to restore perpetrators' acceptance and valuing of the relationship (Studies 1a, 1b, and 2). In accordance with such goals, the intensity of victims' hurt did not predict victims' destructive responses in any of our studies (Studies 1a, 1b, 2, or 4). In fact, in two studies (Studies 1a and 2), victims' hurt predicted greater constructive behaviors. Nonetheless, effects of hurt on constructive behavior were small and inconsistent, which may be a result of the uncertainty involved with experiences of hurt. On the one hand, hurt victims may value the relationship and wish to enact behaviors that could repair it. On the other, hurt victims often may be uncertain

of whether repair attempts would be welcomed or effective, and so they may often restrict their constructive responses until the perpetrator reaffirms interest in the relationship (see also MacDonald & Leary, 2005). Indeed, hurt is characterized by subjective uncertainty (Fitness & Warburton, 2009).

In contrast to hurt, the intensity of victims' anger was associated with greater control and power and reduced vulnerability and dependence (Studies 1a and 1b). Anger was not associated with victims' commitment in one study (Study 3) and was inversely associated with commitment in the other (Study 4). Hence, anger did not involve the same sense of wanting or needing a relationship with the perpetrator. Anger also was characterized by goals to coerce perpetrators to change their behavior (Studies 1a, 1b, and 2), and seemed to reflect lack of concern for the perpetrator's sentiments, as victims' intensity of anger was inversely associated with their goals to improve the perpetrator's valuing of the relationship (Studies 1a and 1b). These findings are also consistent with our argument that anger involves a focus on immediate behavior and a myopic oversight of broader relationship concerns. In accordance with the goal to coerce behavioral change and with their disregard for restoring acceptance, victims' anger intensity predicted their destructive behavior (Studies 1a, 1b, 2, and 4), a pattern that is well established in prior research (e.g., Averill, 1982; deRivera & Grinkis, 1986; Fischer & Roseman, 2007; Frijda et al., 1989; Roseman et al., 1994).

Hence, hurt and anger differed in appraisals, goals, and behaviors, which are indicators that they serve different social functions (Fischer & Manstead, 2008; Fischer & Roseman, 2007; Frijda et al., 1989; Frijda & Parrott, 2011; Lazarus, 1991b; Roseman et al., 1994; Simon, 1967; Tooby & Cosmides, 1990). These findings support our arguments that the social function of hurt is to restore acceptance by valued relationship partners, whereas the social function of anger is the control of others' behavior to render the environment more consistent with one's needs or desires, which do not appear to involve acceptance by others.

Perpetrators' Responses and Interpersonal Consequences

In many cases, the social functions of emotions involve influencing and conveying messages to others (Clark et al., 1987; Keltner & Haidt, 1999; Van Kleef, 2010). As outlined in Table 1, we proposed that the consequences and functions of hurt and anger involve such dyadic processes. Specifically, we predicted that victims' hurt would signal to perpetrators that victims valued the

relationship and would elicit perpetrators' constructive responses, including feelings of empathic concern and guilt and actions to make amends. In contrast, because anger communicates independence, a motivation to control others, and antagonistic urges, we expected that victims' anger would signal to perpetrators that victims do not value the relationship or care for perpetrators' welfare, and elicit perpetrators' reciprocated anger and defensive, destructive behavior.

Our studies provided strong support for these predictions. Victims' hurt predicted constructive responses by perpetrators, including empathy, guilt, and constructive behavior, in retrospective accounts (Study 2). In our daily report study (Study 3), perpetrators were more caring, admiring, committed, and guilty on days following victims' hurt feelings or perpetrators' perceptions of victims' hurt. In our behavioral observation study, perpetrators enacted more constructive behavior during ongoing interactions with victims after victims felt hurt (Study 4). In contrast, victims' anger predicted perpetrators' reduced constructive responses (Studies 3 and 4) and increased destructive responses (Studies 2, 3, and 4).

Moreover, our results supported the prediction that victims' hurt and anger would convey different messages regarding victims' relationship concerns. Victims' hurt predicted perpetrators seeing victims as desirous of their acceptance and more committed in retrospective accounts (Study 2). Similarly, victims' chronic proneness to hurt feelings was associated with perpetrators' chronic perceptions of victims' commitment in our dyadic study (Study 3), and victims' daily hurt feelings predicted perpetrators perceiving victims as more committed to the relationship the following day in that same study (Study 3). These findings suggest that based on their own conceptual knowledge of hurt, perpetrators intuitively know that the propensity to feel hurt signals that the victim values the relationship. So when victims express hurt, they communicate commitment to the perpetrator. In contrast, victims' anger intensity predicted perpetrators seeing victims as less committed and wanting to control them (Studies 2 and 3). These findings strongly suggest that hurt conveys dependence and motivates perpetrators' constructive responses, whereas anger signals threat (i.e., conveys destructive urges and withdrawal from reconnection) and motivates perpetrators' defensive retaliation.

These diverging responses from perpetrators likely influence the impact of hurtful and angry events on interpersonal relationships. In Study 2, we found that victims' hurt intensity predicted more positive perceptions of relationship consequences (e.g., more trust in partners, more care for the relationship), which was explained by perpetrators' and victims' constructive responses to hurt, whereas victims' anger predicted negative consequences, which was explained by perpetrators' destructive responses to anger. These findings contrast with prior findings suggesting that hurtful events generally have negative interpersonal consequences (Leary et al., 1998). Methodological differences may have contributed to these effects. Our studies examined associations with intensity of both hurt and anger. Moreover, in Study 2, which assessed relationship consequences, we restricted participants' selection of hurtful events to relatively recent events, which may have resulted in a sample of events that were more typical and less destructive.

These findings highlight the relationship-protective function of hurt. When people strongly value a relationship, they have much to lose from its termination, including the resources and security they

need and desire (see Baumeister & Leary, 1995; Murray et al., 2006; Rusbult, 1980). In contrast, the termination of undesired or unnecessary relationships may be of little consequence. Hence, mechanisms that protect and maintain relationships should occur primarily when those relationships are valuable (Baumeister & Leary, 1995; Keltner, Haidt, & Shiota, 2006; Leary & Baumeister, 2000). Our findings regarding victims' subjective experiences, perpetrators' responses, and relationship consequences suggest that hurt feelings, but not anger, may be one such mechanism (see also MacDonald & Leary, 2005; Shaver et al., 2009). Anger instead appears to involve a mechanism of controlling others' behavior to make the social environment more conducive to angry victims' needs or desires. However, given that the focus of anger is on coercing behavioral change and not on restoring acceptance, anger appears to motivate unresponsive behavior that further threatens relationships.

Some theoretical perspectives suggest that expressing negative emotions builds intimate relationships (see Clark et al., 2001; Graham et al., 2008). The reasoning behind these views is that this expression conveys needs and a willingness to reveal vulnerabilities. We are in general agreement with this view. However, the current findings suggest that specific emotions also convey one's stance with regard to the relationship. Frameworks regarding the interpersonal consequences of emotions could benefit from a consideration of both the needs and relationship motives that are communicated by the experience and expression of specific emotions.

Boundary Conditions, Strengths and Limitations, and Future Directions

The characteristics we described for hurt and anger should be viewed as probabilistic rather than absolute. Many events will not fit the prototypes we described (see Russell & Fehr, 1994). Situational, relationship, and dispositional factors undoubtedly impact their experiences and consequences. For example, people may modulate expression of emotion as a result of contextualized predictions of the consequences of expression. People may suppress feelings of hurt to avoid expressing vulnerabilities that could be exploited by others, suppress feelings of anger to avoid punishment by powerful perpetrators, express hurt to manipulate others' sympathy, and express anger to gain control (see Gross, 1998; Tiedens, 2001). Subjective goals associated with hurt and anger also may vary as a function of context. For example, hurt victims may usually not retaliate because they feel dependent on the perpetrator's affections and want to restore acceptance. In some cases, however, a hurtful act may leave victims relatively certain that they are not valued and the relationship is permanently damaged. Under these circumstances, hurt victims may distance themselves from perpetrators (see Feeney, 2004; Vangelisti & Young, 2000). These events should feature especially high-intensity hurt feelings, although we would guess that distancing would be a result of the certainty of loss rather than hurt per se. Individual differences also may contribute to these perceptions. People who are chronically insecure about acceptance, such as people with low self-esteem or high attachment anxiety, may be more prone to interpret an act as unequivocal evidence that they are devalued (Murray et al., 2006).

Responses of perpetrators also may vary. For example, although perpetrators of hurt usually value relationships with victims, and their hurtful acts often occur by accident, thoughtlessness, or insensitivity (Leary & Springer, 2001), sometimes perpetrators engage in hurtful acts because they truly do not value a relationship with victims. In such cases, victims may be better off suppressing hurt, as perpetrators may not exhibit constructive responses to the request for reassurance implicit in victims' expression of hurt, which could exacerbate victims' distress. Prior research suggests that a desire for a relationship determines how people respond to others' distress (Clark et al., 1987). Hence, examining the role of perpetrators' relationship motivations in responses to hurt would be an important avenue for future research.

We examined victims' commitment to a relationship with the perpetrator as a moderator variable because we believe that hurt feelings often involve threat to a desired and needed relationship. However, sometimes victims feel hurt not because they value a relationship with the perpetrator, but because the hurtful act threatens victims' sense of being valued by other relationship partners (Vangelisti et al., 2005). Indeed, hurt victims often report that the hurtful events threaten their sense of social desirability (Leary et al., 1998). This may explain why even low-commitment victims showed some vulnerability to hurt. In addition, sometimes people feel hurt by behaviors that seem unrelated to relational devaluation (e.g., expressions of jealousy), suggesting that hurt may be elicited by other threats to relationships (Feeney, 2005). Hence, further delineation of the elicitors of hurt is an important topic for future research.

Many of our findings suggested divergent experiences and consequences of hurt and anger even at the zero-order level (i.e., when the other emotion was not controlled). All of the findings from Studies 1a, 1b, and 4 and many of the findings from Studies 2 and 3 did not vary as a function of whether the other emotion was controlled. However, in a few cases in Studies 2 and 3, our clearest findings emerged when we used methods that allowed us to examine the direct (i.e., unique) effects of hurt and anger, and this was because reports of hurt and anger were correlated. Examining direct effects allowed us to understand how hurt and anger are different—what features of experience and interactions are a result of hurt and what features are a result of anger—even when some experiences are blends of hurt and anger or involve transitions between them. In such episodes, people may walk along a fine line in response to partners' misdeeds, hovering between feeling and maintaining dependence and vulnerability on one side, and striving for independence and control on the other. The factors that contribute to these blends and how they guide victims' and perpetrators' responses are intriguing directions for future research.

Our findings have important practical implications and support therapeutic interventions that focus on emotions to treat relationship distress. Emotion-focused couple therapy (Johnson, 2004), for example, involves reducing damaging interaction cycles that accompany hostile emotions (such as anger) by helping partners recognize and express more vulnerable emotions (such as hurt). By encouraging couples to share their vulnerabilities, emotion-focused couple therapy aims to help partners become more emotionally engaged, compassionate, and responsive to each other's needs. Our results support that identifying and fostering the expression of more vulnerable emotions, such as hurt, is likely to

have positive consequences for the relationship by eliciting reparative efforts by perpetrators, thereby building care and trust. In contrast, although anger might help individuals retain personal control and punish partners' transgressions, anger is most likely to have interpersonal costs by escalating destructive interactions. Future research should test the long-term relationship consequences of these processes.

We consistently referred to "hurt" and "anger" as emotional experiences. Whereas anger is featured in many taxonomies of emotion, hurt is understudied in the emotions literature. Our aim in the current research was not to qualify hurt feelings as an emotional experience in terms of criteria proposed by other emotions scholars, although hurt may qualify according to some standards. For example, some have proposed as a definition a variant of the following: an emotional experience is a valenced state that is (a) appraised as personally significant, (b) has an object (i.e., the state is about something), and, hence, (c) motivates a problem-focused response (e.g., Clore & Ortony, 2000; Frijda, 1986; Lazarus, 1991b). Hurt appears highly negatively valenced, given its strong association with emotional distress (Leary et al., 1998). Moreover, the current findings clearly indicate that hurtful experiences are personally significant (i.e., threat to an important relationship) and have an object and a problem-focused motivational state (i.e., perceiving devaluation by a valuable relationship partner and wanting to restore acceptance). Hence, hurt would qualify as an emotion according to these criteria. Of course, other theorists have different criteria, and this is beyond the scope of the current research. We expect that, with further studies dedicated to the issue, hurt feelings will pass the test(s) for emotional experience.

In addition, our aim was not to show how hurt is different from other emotional experiences beyond anger. Hurt and sadness may be positively associated in some contexts and have similar interpersonal consequences (see Sanford, 2007; Sanford & Rowatt, 2004; Shaver et al., 1987). Hurt also may overlap with other negative emotions such as anxiety and shame (Vangelisti & Young, 2000). As argued by others (see Feeney, 2005; Fitness & Warburton, 2009; Leary & Leder, 2009; Shaver et al., 2009; Vangelisti, 2009); however, we believe that hurt is a unique emotional experience. Sadness represents a sense of finality that we do not ascribe to hurt. It is characterized by the appraisal that events are beyond anyone's control (Smith & Ellsworth, 1985), a sense of irrevocable loss (Lazarus, 1991a), and a reduction in active goal pursuit (Roseman et al., 1994). In contrast, our findings suggest that hurt involves the wish for pain relief—the hope and desire to restore feelings of value and connection. Anxiety is characterized by a desire to avoid an unpleasant outcome (Roseman et al., 1994; Smith & Ellsworth, 1985), whereas hurt usually occurs when an unpleasant outcome has already been experienced. In addition, hurt and anger seem primarily social—inflicted by another person—whereas sadness and anxiety can occur without a human agent (see Roseman, Spindel, & Jose, 1990). A number of investigations, beyond our own, provide empirical evidence for viewing hurt as a unique experience. Leary and Leder (2009) have shown that hurt has unique variance that cannot be explained by other negative emotions and that the size of this unique variance is comparable to the unique variance of many other emotions (e.g., fear, hostility, sadness, and guilt). Hence, hurt seems to be no more a "blend" than these others. These authors also found that the appraisal that one was not valued as much as one had desired

distinguished hurt from anger, sadness, anxiety, and guilt. Moreover, Feeney (2005) reported evidence suggesting that hurt is distinct from other emotions in terms of themes regarding personal injury. Fitness and Warburton (2009) differentiated hurt from anger and sadness on a number of conventional appraisal dimensions. These findings, along with the current findings, suggest that hurt is a unique experience.

Finally, although we found consistent evidence suggesting that relational devaluation elicits both hurt and anger, our research does not speak to the subtler features of the eliciting situation that may lead one to feel one of these emotions over the other. Such features can prime preexisting knowledge about hurt or anger, which may impact current emotional experience and labeling (Barrett, 2006), and cause people to appraise the current situation in fundamentally different and emotionally evocative ways (e.g., Clore & Ortony, 2000). Feeney (2005) has provided some initial support for the utility of examining finer details of eliciting events. Retrospective accounts of hurt feelings featured themes of relational devaluation, but specific forms of relational devaluation were related to reports of other emotions alongside hurt. Reports of anger were overrepresented when perpetrators engaged in infidelity and deception, and they were underrepresented when perpetrators engaged in active and passive disassociation (i.e., explicit rejection, abandonment, ignoring the victim). One possibility is that people report both hurt and anger when the specific form of devaluation involves behaviors that victims feel they can rightfully punish or otherwise control (i.e., deception and infidelity), perhaps because these are seen as unjust or immoral (see Roseman, 1984). Another possibility is that certain forms of devaluation may be so severe (i.e., infidelity) that they reduce victims' concerns about the relationship, perhaps promoting a shift to anger.

Conclusion

Our findings suggest that angry individuals have the desire and conviction to control others' behavior, often through antagonistic coercion. Although anger might often serve the purpose of controlling others, our results suggest that the antagonistic elements of anger will decrease perpetrators' confidence in victims' commitment and motivate perpetrators to respond in ways that exacerbate conflict, including reduced constructive responses and increased aggression. In contrast, hurt does not involve the same reverberation of interpersonal difficulties. Our results suggest that hurt facilitates repair of needed relationships. Specifically, hurt individuals want to restore the perpetrator's valuing, feel dependent on the perpetrator's intentions, and feel hurt especially when they need and desire the relationship. Thus, hurt does not motivate destructive responses. Furthermore, hurt signals to perpetrators that victims care about the relationship and elicits perpetrators' constructive responses, which have benefits that appear to offset hurt feelings, including increasing care and trust. The repair function of hurt appears truly interpersonal—it can be seen not only in the appraisals, goals, and behaviors of hurt victims but also in the thoughts, feelings, and behaviors of perpetrators.

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