



# When do customers offer firms a “second chance” following a double deviation? The impact of inferred firm motives on customer revenge and reconciliation

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## Abstract

The present research develops and tests a theory explaining how customers respond to failed service recoveries (i.e., double deviations). This work offers three novel and important conclusions. First, inferences about a firm's motive (negative vs. positive) mediate the impact of perceptions of the double deviation (i.e., severity, blame, and fairness) on resulting outcomes (i.e., customer anger, desire for revenge, and desire for reconciliation). Second, when inferred motive is positive, desire for reconciliation overwhelms desire for revenge, leading customers to choose more reparatory than retaliatory behaviors. Third, following a double deviation, firms that both compensate and apologize to customers can change customers' inferred motives from negative to positive, leading customers to desire more reconciliation than revenge, and engage in more reparatory than retaliatory behaviors. These studies demonstrate that, contrary to common wisdom, customers do not *always* respond negatively to a double deviation, and firms still have a “second chance” following a failed recovery.

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## Introduction

Service failures are an unfortunate reality in many service encounters. Flights are delayed, food is under-prepared, and hidden fees are charged on credit cards. Because service failures cannot be fully prevented, scholars have stressed the importance of understanding customers' reactions to a firm's service recovery efforts (Hart et al. 1990; Smith, Bolton, and Wagner 1999). The recovery stage is critically important, because a service failure followed by a failed recovery (i.e., a *double deviation*; Bitner, Booms, and Tetreault 1990) is likely to lead to highly dissatisfied customers (Maxham and Netemeyer 2002)

who attempt revenge (Bechwati and Morrin 2003). Given their costly nature, researchers have been keen to understand the cognitive and emotional processes linking failed recoveries with customer responses such as a desire for revenge and retaliatory behaviors (i.e., negative behaviors that aim to punish and cause inconvenience to a firm for the harm it has caused).

As we review, existing research suggests a basic model of responses to double deviations in which perceptions of the service failure and failed recovery (blame, severity, fairness) lead to anger, desire for revenge, and retaliatory behaviors (Fig. 1, Panel A). While instructive, this model raises three important questions. First, *why* do blame, severity and a lack of fairness lead to anger, desire for revenge and retaliatory behaviors? Second, after a firm “blows” its first chance to win back a customer (by failing at service recovery, and thus committing a double deviation), does the firm get a *second chance* (i.e., an opportunity to recover from the double deviation)? Restated, are desire for revenge and retaliatory behaviors the only possible responses following a double deviation, or might customers, under the right conditions, respond positively and prefer to reconcile with a

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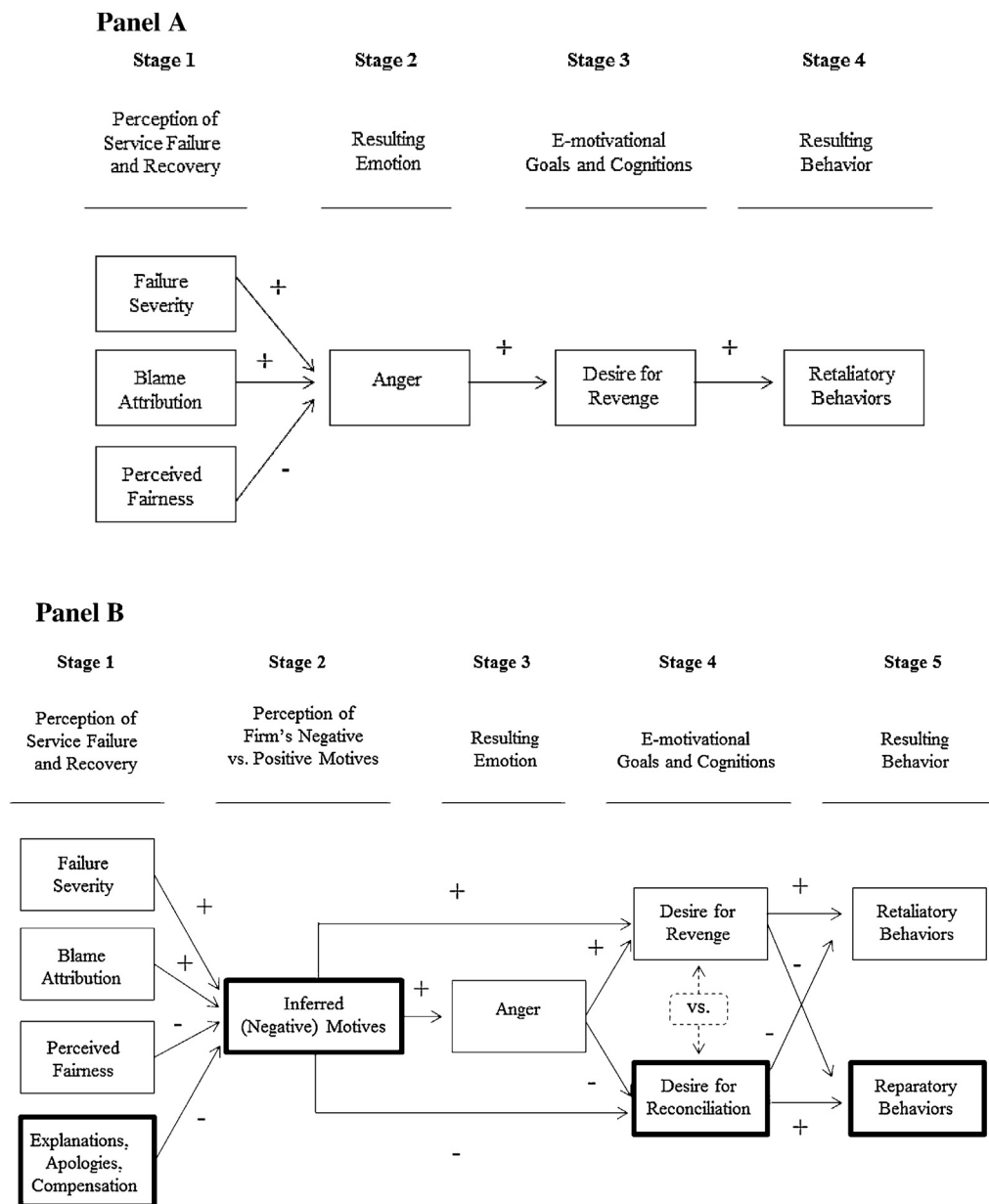


Fig. 1. (Panel A) Basic process model of responses to double deviations. (Panel B) Expanded process model of responses to double deviations.

firm? Finally, what can firms do to encourage a desire for reconciliation, thus encouraging customers to offer the firm a second chance?

To address these questions, we advance an expanded process model of responses to double deviations (Fig. 1, Panel B). Our model improves upon the basic model in three ways, and thus offers three key contributions to the literature on responses to service failures.

First, our model posits that a key determinant of whether customers experience anger and desire revenge (or reconciliation) following double deviations is the valence of their *inferred firm motives*. Specifically, if a firm does not address a customer's complaints following a double deviation, the customer may infer the firm is "greedy" and "uncaring" at his or her expense, and these inferred negative motives, in turn, are likely to lead to

feelings of anger, a desire for revenge, and retaliatory behaviors. Despite inferred firm motives' theoretical and practical relevance, little research has explored how this important construct influences responses to double deviations (cf. Grégoire, Laufer, and Tripp 2010). Incorporating this key cognition is critical because, as we will see, it determines to a great extent whether a customer responds negatively or positively to a double deviation.

Second, while negative responses to double deviations are common, our model assumes that second chances are still possible, and thus incorporates positive responses, including desire for reconciliation and reparatory behaviors (i.e., constructive behaviors that seek to redress and resolve the problem caused by a firm). To the best of our knowledge, positive responses following a double deviation have been completely unexplored, leaving

a false impression that negative responses – such as revenge, avoidance, complaining and exit (e.g., Bechwati and Morrin 2003; Bitner, Booms, and Tetreault 1990; Bougie, Pieters, and Zeelenberg 2003) – are the only responses to double deviations, and that firms cannot earn a second chance following double deviations. By contrast, our model assumes that, when customers infer that a firm had a positive motive for a double deviation, desire for reconciliation may overwhelm the desire for revenge, thus reducing retaliatory and increasing reparatory behaviors.

Finally, our model highlights actions firms can take, post double deviation, to encourage customers to infer a positive motive. Specifically, firms may first attempt to explain their positive motives for the double deviation. When explanations are not feasible, firms should both apologize and compensate customers. While research has shown that these interventions are effective following an initial service failure (e.g., Smith, Bolton, and Wagner 1999), no research has explored their effectiveness following double deviations. We address that gap, and provide new insight into how such interventions work. Namely, our model proposes that apologies and compensation can encourage positive consumer responses because they lead to a perception that the firm has positive motives. Here, our model suggests that provision of apologies along with compensation could eliminate the damage resulting from failed recoveries, leaving only the level of dissatisfaction resulting from the initial service failure. In sum, our model not only proposes that a second chance is still possible, but more importantly, tests concrete actions (i.e., explanations, apologies and compensation) that firms should use to increase the likelihood of obtaining this second chance.

Next, we briefly review the basic model of responses to double deviations and subsequently discuss, in detail, our expanded model. We then report three studies corresponding to our three contributions and hypotheses. Study 1, a field study, highlights that inferred negative motives mediate the effects of blame, severity, and fairness on customer anger, which in turn mediates the effect of inferred motives on desire for revenge. Study 2 demonstrates that firms can use explanations stressing the firms' positive motives that led to the double deviation, which subsequently impact customers' level of anger and relative desire for revenge versus reconciliation. Finally, Study 3 shows how firm actions (i.e., apologies and compensation) can substantially alter customers' responses to double deviations via firm actions' impact on inferred motives.

### Basic process model of responses to double deviations

A review of research on responses to service failures suggests the basic process model of responses to double deviations shown in Fig. 1 (Panel A). The basic model posits that perceptions of the service failure (i.e., severity) and failed recovery (i.e., blame and a lack of fairness) incite anger, which promotes desire for revenge and engagement in retaliatory behaviors (see Table 1 for the definition of all model constructs).

We first note that people do not typically engage in revenge unless they have been wronged in some way. When something does go wrong, however, they search for answers (Bies, Tripp, and Kramer 1997) to three questions (Crossley 2009): First, how

inconvenient was the initial service failure (*severity*)? Second, who is to blame for the service failure and poor recovery (*blame attribution*)? For instance, does the customer blame the poor service on the environment, the firm, or himself or herself? Third, how fair was the recovery process (*fairness*) (e.g., Smith, Bolton, and Wagner 1999)? Does the customer believe he or she received a fair outcome (*distributive fairness*)? Does the customer believe he or she was treated politely and with respect (*interactional fairness*)? And does the customer believe that the procedures used by the firm to arrive at a decision were fair (*procedural fairness*)?

Research on these questions indicates that severe failures, blaming and a lack of perceived fairness are associated with higher levels of anger (Grégoire, Laufer, and Tripp 2010; McColl-Kennedy et al. 2009), and vengeful responses (Aquino, Tripp, and Bies 2001; Aquino, Tripp, and Bies 2006). Consistent with the first mediational path (*perceptions of the service failure and failed recovery* → *anger* → *desire for revenge*), anger mediates the relationship between well-established cognitions (i.e., blame, fairness and severity) and negative responses such as retaliation (Bonifield and Cole 2007; Grégoire and Fisher 2008). Consistent with the second mediational path (*anger* → *desire for revenge* → *retaliatory behaviors*), anger is associated with a desire for revenge (e.g., Folkes 1984; Tripp and Bies 2009), which predicts many retaliatory behaviors (Bechwati and Morrin 2003; Grégoire, Laufer, and Tripp 2010). Here, Bougie, Pieters, and Zeelenberg (2003) argue that emotions like anger are connected to behavior via their link with “e-motivational goals” (i.e., “goals that accompany discrete emotions”; p. 379). For example, Wetzer, Zeelenberg, and Pieters (2007) have shown that angry consumers engage in negative word of mouth, in part, to achieve the goal of revenge.

Finally, customers can express their desire for revenge in different manners. Singh (1988) found that customers can complain by: (1) engaging in *private* negative word of mouth to others, (2) voicing their concerns to the firm, and (3) seeking third-party help by contacting a consumer agency, legal experts, mass media or the Internet. Expanding upon this typology, recent research shows that customers may also engage in vindictive complaining by verbally attacking firm employees, not to resolve their complaints but to seek revenge, and by complaining to third parties to cause inconvenience to firms (Bonifield and Cole 2007). Building on this research, we draw on an established conceptualization of retaliatory behaviors (Gelbrich 2010; Johnson, Matear, and Thomson 2011) that focuses on (1) *negative word-of-mouth to others*, (2) *private vindictive complaining* to the firm, and (3) *third-party complaining for negative publicity*.

### Expanded process model of responses to double deviations

While instructive, the basic model leaves several important questions unanswered, which we address across three studies. First, what links perceptions of the precipitating event (blame, severity, fairness) to anger and desire for revenge (Study 1)? Second, do desire for revenge and retaliatory behaviors always follow from a double deviation, or might customers, at times, desire reconciliation and engage in reparatory behaviors (Study

Table 1  
Definition and origin of model constructs.

Constructs within the basic process model		
Blame	Degree to which customers perceive a firm to be accountable for the causation of a failed recovery. Recently, this cognition has been argued to be formed after the failed recovery (Grégoire, Laufer, and Tripp 2010).	Maxham and Netemeyer (2002), Zourrig et al. (2009)
Severity	Extent to which an individual believes the service failure caused inconvenience and aggravation. This cognition is formed immediately after the service failure.	Maxham and Netemeyer (2002), Smith, Bolton, and Wagner (1999), Zourrig et al. (2009)
Fairness	Fairness judgment is based on three components which are typically formed at the recovery stage.	Smith, Bolton, and Wagner (1999), Tax, Brown, and Chandrashekar (1998)
Distributive fairness	Extent to which an individual believes he or she received a fair outcome from the firm.	
Interactional fairness	Extent to which an individual believes firm treated him or her politely and with respect.	
Procedural fairness	Extent to which an individual judges a firm's decision-making procedures as fair.	
Anger	A strong emotion that involves an impulse to respond and react toward the source of anger. Recently, this source has been the failed recovery (Bonifield and Cole 2007).	Bougie, Pieters, and Zeelenberg (2003), McColl-Kennedy et al. (2009)
Desire for revenge	Extent to which an individual wants to punish and cause harm to a firm for the harm it has caused. This desire has been mostly studied after a failed recovery (Bechwati and Morrin 2003).	Aquino, Tripp, and Bies (2001), Bechwati and Morrin (2003), Grégoire and Fisher (2008), McCullough (2008)
Retaliatory behaviors	Negative behaviors that aim to punish and cause inconvenience to a firm for the harm it has caused.	Grégoire and Fisher (2008)
Negative word of mouth	Extent to which an individual speaks poorly about the firm to others and recommends that others avoid using the firm.	Bonifield and Cole (2007), McColl-Kennedy et al. (2009)
Vindictive complaining	Extent to which an individual complains directly to the firm's frontline employees to give them a hard time and make them pay for their poor service.	Bonifield and Cole (2007), McColl-Kennedy et al. (2009)
Third party complaining for negative publicity	Extent to which an individual complains to a third party to make his or her problems with the company publicly known.	Grégoire, Tripp, and Legoux (2009), Grégoire, Laufer, and Tripp (2010)
Additional constructs within the expanded process model		
Inferred (negative) motives	Extent to which customer believes firm tried to maximize its own interests and take advantage of the customer.	Campbell (1999), Reeder et al. (2002)
Desire for reconciliation	Extent to which a consumer is willing to accept a firm's failure and extend acts of goodwill in the hope of maintaining his or her relationship with the firm.	Aquino, Tripp, and Bies (2006)
Reparatory behaviors	Constructive behaviors that aim to seek redress and resolve the problem caused by a firm.	Grégoire and Fisher (2008)
Problem solving complaining	Extent to which an individual complains directly to the firm to solve the problem with the firm.	Aquino, Tripp, and Bies (2006), Grégoire and Fisher 2008
Third party complaining for problem resolution	Extent to which an individual solicits advice from a third party in an effort to solve the problem with the firm.	Aquino, Tripp, and Bies (2006), Grégoire and Fisher (2008)

2)? Finally, what can firms do to encourage more positive customer responses following double deviations (Study 3)? Our expanded model addresses these questions by adding several new constructs to the basic model (bolded in Fig. 1, Panel B). In the process, our work makes three key contributions to the literature. Below, we highlight our first two contributions and outline the logic for the hypotheses tested in Studies 1 and 2. We then describe the results of Studies 1 and 2 and subsequently consider the role of apologies and compensation within our model, which we test in Study 3.

#### *The role of inferred (negative vs. positive) firm motives*

Our model's first contribution is its inclusion of the novel construct of *inferred firm motives*, defined as the extent to which

a customer believes a firm intended the double deviation to maximize its own interests and take advantage of the customer (negative motive), or help the customer (positive motive). To illustrate, consider two possible motives for why an airline has instituted an automated customer complaint system. First, a negative motive that customers may infer is that the airline merely wanted to give the appearance of listening to customers' complaints while redirecting the complaints to a database the airline could ignore. Second, a positive motive that customers may infer is that the airline wanted to hear more of its customers' complaints so it could improve its service. While inference of positive motives may seem unlikely in a double deviation context, it is important to recognize that undesirable outcomes do not always lead to inferred negative motives. At times, customers may attribute an undesirable outcome to *positive motives*

(Campbell 1999). Thus, even after double deviations, inference of positive motives is possible.

Incorporating inferred firm motives into an expanded process model is based on at least three considerations. To begin, people spontaneously make inferences about the motives of causal agents (Kramer 1994; Reeder et al. 2002), especially when a situation is viewed as negative and potentially harmful, as is often the case in double deviations. Second, inferring motives is highly functional, as knowing an offender's motives can tell a victim what the offender's character is (Reeder et al. 2002), whether the offender can be trusted again (Lewicki and Bunker 1996), and whether it is best to retaliate to defend oneself or whether reconciliation will provide the best path to self-advancement. Finally, as we will show, the valence of a customer's inferred firm motives has a significant impact on customer anger, desire for revenge, and desire for reconciliation; as such, encouraging a perception of positive motives (via explanations, apologies, and compensation) can serve as an effective intervention for encouraging more positive responses to double deviations.

As can be seen, our expanded model positions inferred firm motives as a key mediator between perceptions of the precipitating event (severity, blame, and fairness) and customer anger. Specifically, our model proposes that failure severity, blaming the firm and a lack of fairness are linked with customer anger because each perception leads customers to infer that a firm has negative motives. Indeed, when a customer encounters a severe double deviation, due to the firm, which they perceive as highly unfair, it likely sends a strong signal that the firm cares very little for the well-being of customers, and is attempting to further its own interests (Bies and Tripp 1996; Crossley 2009), which in turn should make the customer angry.

Moving downstream, our model further posits that inferred firm motives predict desires for revenge and reconciliation via two routes: an *indirect emotional route* and a *direct cognitive route* (Grégoire, Laufer, and Tripp 2010). The indirect emotional route assumes that the valence of a customer's inferred firm motives predicts the customer's level of anger, which in turn predicts the customer's desire for revenge and desire for reconciliation. Restated, the indirect route assumes that anger mediates between inferred motives and the two desires. By contrast, the direct cognitive route assumes that a customer can draw on inferred firm motives to "coldly" decide, regardless of his or her emotions, whether a firm deserves to be punished or offered a second chance (via reconciliation) following a double deviation (e.g., Bies, Tripp, and Kramer 1997). Framed another way, the direct route assumes that inferred firm motives predicts desire for revenge and reconciliation even after controlling for anger.

Formally stated, this line of reasoning suggests the following three hypotheses concerning the key role of inferred firm motives in our model, which together represent our first contribution.

**Hypothesis 1.** The construct "inferred firm motives" mediates relationships of blame (H1a), severity (H1b), and fairness (H1c) with anger.

**Hypothesis 2.** Based on the indirect route, the relationship between inferred firm motives and desire for revenge (H2a) and desire for reconciliation (H2b) is (partly) mediated via anger.

**Hypothesis 3.** Based on the direct route, inferred firm motives is significantly related to desire for revenge (H3a) and desire for reconciliation (H3b) after controlling for anger.

Drawing on a combination of field and experimental designs, we tested H1 in Study 1; H2a and H3a in Studies 1–3; and H2b and H3b in Studies 2 and 3.

#### *The possibility of second chances: desire for reconciliation and reparatory behaviors*

Our model's second contribution is its recognition that positive consumer responses, including desire for reconciliation and reparatory behaviors, are possible following a double deviation. Formally defined, *desire for reconciliation* is a customer's willingness to accept a firm's failure and to extend acts of goodwill in the hope of maintaining a relationship with the firm (Aquino, Tripp, and Bies 2006), whereas *reparatory behaviors* are constructive behaviors customers can perform to seek redress and resolve the problem caused by the firm (Grégoire and Fisher 2008). Consistent with Singh (1988), customers may principally engage in two reparatory behaviors. First, customers may voice their concerns internally to the firm, for example, by engaging in *private problem-solving complaining*. Second, if discussions with a firm appear to fail, customers may engage in *third-party complaining for problem resolution*.

Adding positive responses to the basic model raises the question, why distinguish conceptually between positive and negative responses to a double deviation when the two appear to be opposite ends of the same construct? While revenge and reconciliation are different responses to a double deviation, they are not mutually exclusive. In fact, in workplace studies, revenge and reconciliation show *small*, inverse correlations (e.g., Aquino, Tripp, and Bies 2006; Crossley 2009). The small magnitude of the correlation may seem counterintuitive, in part because revenge is antithetical to forgiveness, and because forgiveness makes reconciliation more likely (Tripp and Bies 2009).<sup>2</sup> Nonetheless, it is possible for an individual to seek both revenge and reconciliation for the same double deviation. For instance, following a double deviation, a customer could first seek revenge, say through spreading negative word of mouth online, and then seek to reconcile when the firm, after seeing the online post, contacts the customer to resolve the complaint. Similarly, it may be possible for a customer to simultaneously desire both revenge and reconciliation. For instance, the customer may want to "teach a lesson," which is a common motive for revenge (Tripp and Bies 2009), but then want to "get on with business." Given this, we draw a distinction between desire for

<sup>2</sup> Note also that forgiveness and reconciliation are different constructs. As Aquino, Tripp, and Bies (2006) explain, forgiveness is an *intrapersonal* act of letting go of negative emotions, whereas reconciliation is an *interpersonal* act of goodwill that hopes to restore a relationship. Thus, it is possible for one to forgive without reconciling, as some people do when they terminate relationships and move on; conversely, it is also possible to reconcile without forgiving, as employees sometimes do with bosses who harmed them when such employees need to keep their jobs, and as customers sometimes do when they have no other options.

revenge and desire for reconciliation, and between retaliatory and reparatory behaviors.

Recognizing that customers can hold both desires simultaneously suggests that customer response to a double deviation is better understood when these two desires are examined simultaneously, rather than in isolation. Indeed, a key aspect of our model is its emphasis on the importance of comparing desire for revenge versus reconciliation. Within this framework, the most favorable customer response to a double deviation should occur when desire for reconciliation is higher than desire for revenge. In this case, the customer should be less inclined to perform retaliatory behaviors and more inclined to perform reparatory behaviors. Correspondingly, the most damaging customer response to a double deviation should occur when desire for revenge is higher than desire for reconciliation. In this case, the customer should be more inclined to perform retaliatory behaviors and less inclined to perform reparatory behaviors. Based on our expanded model, which desire prevails rests largely on the customer's inference of firm motives.

As already noted, our expanded model assumes that customers who infer negative motives for a double deviation will – relative to those inferring positive motives – experience greater anger, a higher desire for revenge, and a lower desire for reconciliation. Moving beyond these bivariate relations, we also assume that an inference of negative motive will lead to a higher level of desire for revenge (than reconciliation), whereas an inference of positive motive will lead to higher desire for reconciliation (than revenge). This line of reasoning leads to the following hypothesis, which represents our second contribution.

**Hypothesis 4.** Inferred firm motive interacts with desire such that when inferred motive is negative, desire for revenge is greater than desire for reconciliation, whereas when inferred motive is positive, desire for reconciliation is higher than desire for revenge.

Study 2 tested H4 by directly manipulating inferred firm motives via explanations for the double deviation that emphasized negative versus positive motives, with a baseline control.

#### Pilot study: do consumers think about firm motives?

Before reporting Studies 1 and 2, we evaluate a fundamental assumption underlying our analysis, namely, that consumers facing a double deviation do in fact think about a firm's motives. To evaluate this assumption, an on-line panel of 132 U.S. consumers (51.5 percent female; 80.3 percent Caucasian; median age = 30) rated the likelihood that they think about firm motives following a service failure (single deviation condition), or a service failure followed by a failed recovery (double deviation condition). Participants randomly assigned to the *single deviation condition* were told: *We are interested in understanding what consumers think when they experience service failures (e.g., delayed flights, failing to deliver on promised merchandise)*. Participants in the *double deviation condition* were told: *We are interested in understanding what consumers think when they experience service failures (e.g., delayed flights, failing to deliver on promised merchandise) followed by a failed recovery (e.g., when you try*

*to resolve the problem, the firm fails at the service recovery)*. Both groups were then asked how likely it was that they would think about whether the firm: (a) *was trying to take advantage of you*; (b) *had good or bad intentions*; (c) *was motivated by their own interests versus your interests*; and (d) *was or was not trying to abuse you* (1 = very unlikely, 7 = very likely) – the items used in our main studies to assess inferred firm motives (current  $\alpha = .87$ ) (cf. Campbell 1999; Reeder et al. 2002). As expected, participants were more likely to think about a firm's motives following a double deviation ( $M = 5.23$ ,  $SD = 1.33$ ) than following a single deviation ( $M = 4.73$ ,  $SD = 1.34$ ),  $t(130) = 2.17$ ,  $p < .05$ . Equally important, both means were significantly above the scale midpoint of 4 ( $p < .001$ ), indicating that consumers were, in an absolute sense, likely to think about a firm's motives following single and double deviations, supporting a key tenant of our paper. Accordingly, we now turn to a test of H1, H2a, and H3a.

#### Study 1: the mediating role of inferred firm motives

##### Participants and procedure

To examine the mediating role of inferred motives (H1) and the direct and indirect effects of inferred motives on desire for revenge (H2a, H3a), we surveyed travelers who complained to the Canadian Transportation Agency (CTA) following a double deviation. Respondents recalled the thoughts and feelings they experienced during the service failure and failed recovery, in line with previous research (cf. Bougie, Pieters, and Zeelenberg 2003; Reynolds and Harris 2009). Because the CTA intervenes only after an airline has failed to resolve customer complaints after 60 days, all travelers had experienced a service failure and a failed recovery (a double deviation). Also, we did not have direct contact with the participants, ensuring anonymity, which Podsakoff et al. (2003) argue reduces the possibility of common method bias. The CTA sent emails to 2,057 travelers who experienced a double deviation; 250 questionnaires were completed, a response rate of twelve percent. Twenty-four respondents were eliminated due to missing responses for a final sample size of 226.

##### Measures

Drawing on past research, we administered relevant scales that had been pretested with 81 PhD students, employees, and travelers who complained about service failures. All scales, shown in Appendix A, used a seven-point Likert response format (1 = strongly disagree to 7 = strongly agree) unless otherwise noted. First, we administered scales assessing how much respondents *blamed* the airline for the service failure (Maxham and Netemeyer 2002); their judgment of *failure severity* (Maxham and Netemeyer 2002); and perceptions of *distributive*, *interactional*, and *procedural fairness* (Smith, Bolton, and Wagner 1999; Tax, Brown, and Chandrashekar 1998). We then assessed *inferred negative motives* using scales adapted from Campbell (1999) and Reeder et al. (2002), *anger* using a measure based on Bougie, Pieters, and Zeelenberg (2003), and

*desire for revenge* using a measure developed by Grégoire, Tripp, and Legoux (2009) and adapted from Aquino, Tripp, and Bies (2001) and McCullough et al. (1998).

#### *Partial least squares structural equation modeling approach*

To evaluate the measurement properties of, and linkages between, our constructs, we used an approach that combines the strengths and weaknesses of the two principal structural equation modeling (SEM) options that are available in marketing (e.g., Fornell and Bookstein 1982): Partial Least Squares (PLS) and Covariance-Based (CB). There is a general agreement that both approaches can be appropriate depending on the context, and they are better viewed as complementary rather than rival (Hair et al. 2012; Reinartz, Haenlein, and Henseler 2009). PLS has been described as the method of choice for *theory development*, whereas CB SEM is especially appropriate for *theory confirmation* (e.g., Fornell and Bookstein 1982; Hair et al. 2012). Based on this prescription, we first *develop* our key theoretical foundations in Studies 1 and 2 using PLS, and further *confirm* our theory in Study 3 using CB SEM.

PLS is based on an iterative combination of principal components and regressions, and it aims to explain the variance of individual constructs (Chin 1998; Fornell and Bookstein 1982). Because of a “localized” estimation algorithm, PLS has greater statistical power (Reinartz, Haenlein, and Henseler 2009), and it typically accommodates larger models for smaller sample sizes (Hair et al. 2012). PLS is also robust toward the violation of the normality assumption and is particularly effective in dealing with formative constructs. Because of these advantages, we use PLS to *develop* (rather than *confirm*) the foundations of our models by focusing on the antecedents of inferred motives in Study 1, and on the effects of inferred motives on the desires (revenge vs. reconciliation) and the behaviors (retaliatory vs. reparatory) in Study 2. Readers interested in a detailed explanation of the relative strengths of PLS versus CB SEM, and our choice of SEM, can contact the second author for a supplemental appendix.

#### *Measurement properties*

Following Hair et al.’s (2012) guidelines, we first tested the psychometric properties of our scales by evaluating the reliability of the items and scales, and the convergent and discriminant validity of the constructs (using PLSgraph 3.0). To assess item reliability, we examined the loading of each item on its corresponding construct. After deleting one item for procedural fairness (because of a weak loading), almost all the loadings were greater than the .70 guideline, and none were below .50 (see Appendix A). In turn, the composite reliability of each scale exceeded .70 (see Table 2, Panel A). In addition, each construct had an average variance extracted greater than .50, providing evidence of convergent validity.

We next assessed the discriminant validity of the constructs in two ways. First, an examination of cross-loadings revealed that no item loaded more highly on another construct than it did on the construct it was intended to measure. Second, we compared

the square root of the average variance extracted (AVE) for each construct to its correlations with the other constructs (Fornell and Larcker 1981). Supporting discriminant validity, the square root of AVE for each construct was substantially greater than any of the correlations (see Table 2).

#### *Results*

##### *Goals*

Study 1 examined the key role played by inferred negative motives in our model by (1) identifying its antecedents, (2) determining the value of adding inferred motives to the model, (3) evaluating whether inferred motives mediate relationships of blame, severity and fairness with anger (H1), and (4) testing whether anger would partially mediate between inferred motives and desire for revenge (H2a), leaving a significant residual direct relationship between inferred motives and desire for revenge after controlling for anger (H3a). Study 1 did not incorporate desire for reconciliation or the revenge or reparatory behaviors, which we explored in Studies 2 and 3.

##### *PLS model including motives*

Based on our theoretical model (Fig. 1, Panel B), we first tested a PLS model in which the basic perceptions (blame, failure severity, and the fairness dimensions) predicted inferred (negative) motives, which in turn predicted anger and desire for revenge. We also added a path from anger to desire for revenge, and for completeness, we added paths between the five basic perceptions and the two other dependent variables (anger and desire for revenge). The significance of the parameters was determined using a bootstrapping procedure with 600 resamples. Below, we report the significant paths from this model.

Of the five predictors of motives, three were significant, including severity ( $\beta = .18, p < .01$ ), blame ( $\beta = .16, p < .05$ ), and procedural fairness ( $\beta = -.21, p < .05$ ).<sup>3</sup> In turn, inferred (negative) motives was a significant predictor of anger ( $\beta = .34, p < .001$ ) as was severity ( $\beta = .31, p < .001$ ). Finally, inferred (negative) motives ( $\beta = .23, p < .01$ ) and anger ( $\beta = .25, p < .001$ ) were significant predictors of a desire for revenge. This model explained a significant amount of variance in motives (18 percent), anger (23 percent), and desire for revenge (17 percent) ( $ps < .001$ ).

##### *Rival model without motives*

To assess the impact of adding motives to the model, we next compared the results just described to those of a rival model

<sup>3</sup> There are theoretical reasons to explain why only procedural fairness, and not distributive or interactional fairness, predicted inferred firm motives. First, according to the relational model of procedural fairness (Tyler and Lind 1992), only procedures, not outcomes, contain information about how much the organization cares about its employees (and by extension, its customers), and thus primarily it is procedures that can speak to whether a firm’s motive is selfish and uncaring or looks out for customers’ interests. Second, interactional fairness is more about how *individual employees* treat customers, but the motives we measured are about the *firm’s* motives, so at most one would expect a weak correlation.

Table 2  
Correlation matrices.

## (Panel A) Study 1

	CR	1	2	3	4	5	6	7	8
1. Blame	.87	<b>.84</b>							
2. Severity	.93	.19**	<b>.90</b>						
3. Distributive justice	.96	−.16*	−.09	<b>.94</b>					
4. Interactional justice	.91	−.04	−.12	.27**	<b>.88</b>				
5. Procedural justice	.80	−.24**	−.22**	.41**	.52**	<b>.76</b>			
6. Negative Motives	.83	.22**	.22**	−.21**	−.21**	−.35**	<b>.74</b>		
7. Anger	.92	.21**	.38**	−.09	−.17*	−.17*	.32**	<b>.86</b>	
8. Desire for revenge	.96	.08	.14*	−.03	−.08	−.04	.29**	.33**	<b>.91</b>
Mean	N/A	6.57	5.66	1.80	2.77	1.87	5.28	5.80	2.98
Standard deviation	N/A	.87	1.43	1.41	1.54	1.01	1.25	1.36	1.96

## (Panel B) Study 2

	CR	1	2	3	4	5	6	7	8
1. Positive dummy	N/A	—							
2. Negative dummy	N/A	−.50**	—						
3. Negative motives	<b>.88</b>	−.36**	.28**	<b>.81</b>					
4. Anger	<b>.96</b>	−.50**	.05	.55**	<b>.93</b>				
5. Desire for revenge	<b>.96</b>	−.32**	.02	.36**	.47**	<b>.90</b>			
6. Desire for reconciliation	<b>.93</b>	.37**	−.20**	−.59**	−.58**	−.33**	<b>.85</b>		
7. Retaliatory behaviors	<b>.87</b>	−.41**	.08	.52**	.61**	.66**	−.60**	<b>.83</b>	
8. Reparation behaviors	<b>.66</b>	−.16*	−.02	.10	.20*	.17**	.07	.14*	<b>.74</b>
Mean	N/A	N/A	N/A	4.49	4.92	3.02	2.45	4.41	3.99
SD	N/A	N/A	N/A	1.33	1.80	1.68	1.31	1.31	1.27

## (Panel C) Study 3

	CR	1	2	3	4	5	6	7	8	9
1. Apology dummy	N/A	—								
2. Compensation dummy	N/A	−.31**	—							
3. A + C dummy	N/A	−.36**	−.30**	—						
4. Negative motives	<b>.72</b>	−.11*	−.06	−.16**	<b>.68</b>					
5. Anger	<b>.87</b>	−.08	−.15**	−.33**	.30**	<b>.87</b>				
6. Desire for revenge	<b>.88</b>	−.11*	−.14**	−.19**	.35**	.36**	<b>.88</b>			
7. Desire for reconciliation	<b>.78</b>	.15**	.08	.32**	−.26**	−.42**	−.25**	<b>.79</b>		
8. Retaliatory behaviors	<b>.73</b>	−.15**	−.12*	−.22**	.37**	.44**	.59**	−.46**	<b>.69</b>	
9. Reparatory behaviors	<b>.67</b>	−.04	−.02	−.05	.16**	.08	.19**	.17**	.20**	<b>.61</b>
Mean	N/A	N/A	N/A	N/A	3.97	4.78	3.01	3.10	4.36	3.98
SD	N/A	N/A	N/A	N/A	1.09	1.51	1.49	1.23	1.11	1.20

CR: composite reliability. Square root of the average variance extracted is shown in bold along the diagonal.

\*  $p < .05$  (two-tailed).\*\*  $p < .01$  (two-tailed).

excluding inferred motives (Fig. 1, Panel A). The rival model did not perform as well as the initial model in two respects. First, without inferred motives in the model, the remaining perceptions (blame, severity and the three fairness dimensions) explained significantly less of the variance in anger ( $\Delta R^2 = -3.8$  percent,  $p < .01$ ). In this model, only blame ( $\beta = .13$ ,  $p < .05$ ) and severity ( $\beta = .35$ ,  $p < .001$ ) were significant predictors of anger. Second, without inferred motives in the model, the five basic perceptions and anger explained significantly less of variance in desire for revenge ( $\Delta R^2 = -5.6$  percent,  $p < .001$ ). In this model, none of the five basic perceptions showed a significant relationship with a desire for revenge ( $ps > .59$ ), whereas anger was significantly related to this desire ( $\beta = .31$ ,  $p < .001$ ).

In sum, comparing the rival models with and without inferred motives revealed that inferred motives explained a significant amount of unique variance in anger, above and beyond the five basic perceptions, and in desire for revenge, above and beyond the five basic perceptions and anger, supporting the value of including this new construct in our expanded model.

*Indirect effects and mediation*

The preceding analyses provide reasonable support for the linkages implied in the revenge portion of our model. To formally test H1, H2a, and H3a, we next evaluated the indirect tests implied in the model and performed mediation analyses, as summarized in Table 3. For every indirect path tested (column 1),

Table 3  
Summary of indirect effects and mediation analyses testing indicated hypotheses.

Hypothesis: Indirect effect tested	Path A <sup>a</sup> (X → M)		Path B (M → Y <sub>X</sub> )		Path C' (X → Y <sub>M</sub> )		Indirect effect <sup>b</sup> 95 percent CI		Type effect <sup>c</sup> / mediation
	<i>B</i>	<i>p</i>	<i>B</i>	<i>p</i>	<i>B</i>	<i>p</i>	Lower	Upper	
<b>Study 1</b>									
H1a: Blame → Motives → Anger	.32	.001	.31	.001	.23	.030	.040	.202*	Indirect/partial
H1b: Severity → Motives → Anger	.20	.001	.27	.001	.31	.001	.019	.110*	Indirect/partial
H1c: Procedural Fairness → Motives → Anger	−.43	.001	.32	.001	−.09	.340	−.244	−.066*	Indirect/full
H2a, H3a: Motives → Anger → D-Revenge	.34	.001	.37	.001	.33	.001	.069	.211*	Indirect/partial
<b>Study 2</b>									
H2a, H3a: Motives → Anger → D-Revenge	.74	.001	.37	.001	.18	.036	.112	.416*	Indirect/partial
H2b, H3b: Motives → Anger → D-Reconciliation	.74	.001	−.26	.001	−.38	.001	−.292	−.110*	Indirect/partial
<b>Study 3</b>									
H6: A Dummy → Motives → Anger	−.32	.029	.36	.001	−.20	.282	−.271	−.017*	Indirect
H6: CDummy → Motives → Anger	−.18	.252	.36	.001	−.58	.004	−.188	.042	No effect
H6: AC Dummy → Motives → Anger	−.48	.001	.36	.001	−1.17	.001	−.339	−.061*	Indirect/partial
H2a, H3a: Motives → Anger → D-Revenge	.42	.001	.27	.001	.36	.001	.050	.190*	Indirect/partial
H2b, H3b: Motives → Anger → D-Reconciliation	.42	.001	−.31	.001	−.20	.001	−.205	−.066*	Indirect/partial

<sup>a</sup> Path A = relationship between IV and mediator; Path B = relationship between mediator and DV controlling for IV. Path C' = direct effect of IV on DV, controlling for mediator. A Dummy = apology versus control; C Dummy = compensation versus control; AC Dummy = apology + compensation versus control.

<sup>b</sup> Indirect effects estimated using Preacher and Hayes (2008) bootstrapping procedure (cf. Zhao, Lynch, and Chen 2010). "\*" denotes significant indirect effect because the confidence interval (CI) does not include 0.

<sup>c</sup> Indicates whether the indirect effect is significant, and, using Baron and Kenny (1986), whether there is full or partial mediation. If partial or full mediation is not noted, the basic (X–Y) relationship was not significant, and mediation tests were not performed.

Table 3 displays the regression coefficients and *p*-values for each step of the indirect effects analysis in columns 2–4. Indirect effects were tested using bootstrapping procedures developed by Preacher and Hayes (2008), using a 95 percent confidence interval and a bootstrapping sample of 5,000. As shown in column 5 of Table 3, each of the hypothesized indirect effects was in the predicted direction and significant (i.e., none of the confidence intervals contained 0). In addition, when all of the criteria for mediation were present, following Baron and Kenny (1986), the last column summarizes whether the mediation implied by the indirect effect is partial or full.

Consistent with Hypothesis 1 (the mediating role of inferred motives), all of the indirect paths from the established cognitions to anger through motives were significant (i.e., *severity* → *motives* → *anger*; *blame* → *motives* → *anger*; *procedural fairness* → *motives* → *anger*). Using Baron and Kenny's criteria for establishing mediation, results further revealed that the first two indirect effects involved partial mediation, while the latter involved full mediation. Consistent with Hypothesis 2a (inferred motives' indirect route), results also revealed a significant indirect effect of inferred motives on desire for revenge through anger, which involved partial mediation. Finally, consistent with Hypothesis 3a (inferred motives' direct route), inferred motives remained a significant predictor of desire for revenge, even after controlling for anger (i.e., Path C' was significant).

### Discussion of Study 1

Study 1 provided initial support for the revenge portion of the proposed model as well as our specific hypotheses H1, H2a, and H3a (the only hypotheses tested in this study). To begin, customers were more likely to infer that the airlines had negative

motives when they blamed the airline for the double deviation, believed the failure was severe, and felt that they had been treated unfairly (in terms of procedures). Next, the more negative the inferred firm motive, the angrier customers were and the more they desired revenge, and inferred firm motives largely mediated the effect of the three precursors on anger, as predicted by H1. In addition, as expected, inference of negative motive predicted desire for revenge both indirectly through anger (supporting H2a), and also directly (supporting H3a), which suggests that revenge results not only from hot emotions, but also from cold cognitions. In sum, Study 1 supports our contention that inferred firm motives is a key cognition following double deviations, which subsequently leads to customer anger and desire for revenge.

While promising, Study 1 has four limitations. First, the correlational data do not allow us to show that negative motives actually cause a desire for revenge. Second, Study 1 did not examine desire for reconciliation nor the final revenge/reparatory behaviors. Third, Study 1 did not explore firm actions that encourage the possibility of a second chance. Finally, Study 1 is a cross-sectional survey with all the known limitations associated with this method (i.e., common method bias). We designed Studies 2 and 3 to address these limitations.

### Study 2: impact of experimentally manipulated motives on desires for revenge versus reconciliation

Given the limitations just noted, Study 2 had two goals. First, in order to compare their relative levels, and provide a preliminary test of the relationships specified within our full model, we added measures assessing desire for reconciliation, retaliatory behaviors, and reparatory behaviors. Second, to address the causality issue, and formally test Hypothesis 4, we explored

how experimentally-manipulated inferred firm motives for a double deviation (negative vs. no motive vs. positive) impact relative levels of desire for revenge versus reconciliation (and the remaining variables in our model).<sup>4</sup> Through our positive motive condition, we also explored one action a firm might take to encourage customer reconciliation (rather than revenge), namely, offering an explanation for the double deviation that highlights the firm's positive motives for the double deviation (i.e., the firm's interest in advancing the well-being of the customer).

#### Participants and procedure

A panel of U.S. consumers ( $N=249$ , 53 percent female; 83 percent Caucasian; median age = 29) rated their reactions to one of three service failure scenarios at a hypothetical electronics store.

#### Core double deviation scenario

The core "double deviation" scenario asked participants to imagine they had planned to buy a video game console at "Dave's Electronics," and had called ahead to make sure it was in stock before driving 20 minutes to the store (see Appendix B). Once at the store, participants were told the video game console was unavailable, and they had to return the next week to pick it up (i.e., the service failure). Upon returning to the store the next week, participants were informed that they were not helped right away and had to wait 30 minutes before receiving the console (i.e., the failed recovery/double deviation).

#### Firm motives manipulation

Participants were then assigned to one of three motive conditions. As can be seen in Appendix B, participants in the *negative motive condition* were told the salesperson ignored them to make more money on a different customer; those in the *no motive condition* received no information about what led to the failed recovery; and those in the *positive motive condition* were told the salesperson made them wait to provide them a better deal.

#### Dependent measures

Next, participants rated the store personnel's motives using the four-item inferred motives scale used in Study 1. Following this motive manipulation check, participants completed the anger and desire for revenge scales used in Study 1. Participants also completed scales assessing their desire for reconciliation and likelihood of engaging in retaliatory and reparatory behaviors (see Appendix A). The *desire for reconciliation* scale included the five items developed by Aquino, Tripp, and Bies (2006). The *reparatory behaviors* scale was a second-order construct that was reflected in *problem-solving complaining* and *third-party complaining for dispute resolution* (Grégoire and Fisher 2008). The retaliatory behaviors scale was also a

second-order construct that was reflected in *vindictive complaining*, *negative word-of-mouth* and *third-party complaining for negative publicity* (Grégoire and Fisher 2008).

#### Perceived realism of scenario

To assess the realism of the scenario, we asked participants: (1) how realistic they found the situation at Dave's Electronics (1 = very unrealistic, 7 = very realistic); and (2) how likely it is that an incident like this may occur (1 = very unlikely, 7 = very likely). We averaged the ratings into an overall realism index ( $r = .59$ ,  $p < .001$ ). Supporting the validity of our scenario, the realism index ( $M = 5.48$ ) was significantly above the midpoint of 4 overall ( $p < .001$ ), and within each of the conditions ( $ps < .001$ ).

#### Presence of a double deviation

We also administered scales to evaluate whether our core scenario represented a double deviation. If it did, the perceived level of problem resolution should be significantly lower after the failed recovery (time 2) than after the initial service failure (time 1). To test this, participants rated their perceived level of problem resolution after the service failure (i.e., not obtaining the console on their first visit) and the failed recovery (i.e., when they waited to get the console) using three 7-point scales: Dave's Electronics: (1) did not do (did) their best to serve me well; (2) did not redress (redressed) the situation quickly; (3) did not try (tried hard) to resolve the problem. Focusing on the control condition: these items formed a reliable index at time 1 and time 2 ( $\alpha = .79$  and  $.75$ ) and, as anticipated, level of problem resolution was significantly lower at time 2 ( $M = 1.57$ ) than at time 1 ( $M = 3.02$ ) ( $p < .001$ ).

#### Measurement properties

##### Second-order constructs

As outlined earlier, we elected to use PLS in Study 2 to test the paths implied in our model. However, because PLS SEM cannot incorporate second-order constructs (e.g., Hair et al. 2012), we first performed confirmatory factor analysis to validate the two second-order behaviors. Retaliatory behaviors were reflected in three first-order constructs: negative word-of-mouth (three items), vindictive complaining (three items) and third-party complaining for negative publicity<sup>5</sup> (four items). Reparatory behaviors were reflected in two first-order constructs: problem-solving complaining (three items) and third-party complaining for dispute resolution (four items). This model fit the data acceptably:  $\chi^2(113) = 207.98$ ,  $p < .001$ , CFI = .97, TLI = .96, and RMSEA = .059 (see Appendix A for loadings). The first-order constructs had acceptable convergent validity and reliability, with large and significant  $\lambda$ s ( $ps < .001$ ) and composite

<sup>4</sup> Given that severity, blame and fairness had relatively weaker (indirect) effects on the downstream variables (vs. inferred negative motives), Studies 2 and 3 do not examine their effects further.

<sup>5</sup> For the two third-party complaining behaviors (negative publicity and dispute resolution), we asked the participants to indicate how likely they would be to write a short blog on an influential website on gaming and video games. Compared to prior research, the operationalization of these constructs is somewhat narrower as they only concerned a website. However, this limitation had to be balanced with our need to enhance realism and to fit the context of the experiment (an electronics store).

reliabilities greater than .70. The standardized loadings ( $\gamma$ s) of the first-order constructs on the second-order constructs were also large and significant ( $ps < .01$ ). Supporting discriminant validity, the square root of the average variance extracted of each second-order construct was greater than its correlations with the other constructs (Table 2), and the covariance between both second-order constructs were less than 1 ( $\Delta\chi^2(1) = 52, p < .001$ ). Because this second-order conceptualization possessed adequate psychometric properties, we averaged the items of the first-order constructs, and used the construct scores as items in PLS.

#### Measurements properties in PLS

We next used the procedure outlined in Study 1 to examine the psychometric properties of our reflective scales (as per Hair et al. 2012). The reliability of the items was high, with most loadings above .70 (see Appendix A); the only exception was the loading associated with “problem-solving complaining,” which we retain for consistency with prior work (Grégoire and Fisher 2008). The composite reliability of the scales was also always greater than .70 (see Table 2, Panel B). In terms of convergent validity, the average variance extracted was greater than 50 percent for all constructs. Moreover, supporting the discriminant validity of our scales, no item loaded more highly on another construct than it did on the construct it was intended to measure, and the square root of the average variance extracted for each construct was substantially greater than the construct’s correlation with other constructs.

#### Results

##### Motive manipulation check

We first ran a one-way ANOVA to test the effect of the motive manipulation on inferred negative motives. As shown in Table 4, the ANOVA was significant. As a follow up, we ran (1) pairwise comparisons using Dunnett’s  $t$ -test procedure (control vs. each of the other conditions, respectively), and (2) single-sample  $t$ -tests evaluating each mean’s departure from the scale midpoint of 4 (values  $>4$  indicate a perception of negative motives; values  $<4$  indicate a perception of positive motives). In Table 4, means with a subscript of ‘d’ are significantly different than the control condition using Dunnett’s procedure, and means *not* differing from the scale midpoint are underlined. As can be seen, inferred negative motives were significantly higher in the negative motive condition ( $M = 5.39$ ) than in the control ( $M = 4.58$ ), and significantly lower in the positive motive condition ( $M = 3.56$ ) than in the control condition. Moreover, inferred negative motives were significantly above the scale midpoint in the negative motive and control conditions (indicating a perception of *negative motives*), and significantly below the midpoint in the positive motive condition (indicating a perception of *positive motives*). In sum, results indicated a successful motive manipulation.

##### Effect of stated motives on desires for revenge versus reconciliation

To test Hypothesis 4 (the interaction between motive and desire), we conducted a 3 (motive: negative vs. control vs. positive)  $\times$  2 (desire: revenge vs. reconciliation) mixed-model

ANOVA, treating motive as a between-participants variable, and desire as a within-participants variable. Results revealed the anticipated interaction between motive condition and type of desire ( $F(2, 238) = 44.24, p < .001$ ). Means associated with this interaction are shown in Table 4 and Fig. 2 (Panel A). To follow up this interaction, we next conducted (1) paired samples  $t$ -tests comparing desire for revenge versus reconciliation in each of the conditions and (2) pairwise comparisons between the control condition and each of the remaining conditions, respectively, using Dunnett’s  $t$ -tests.<sup>6</sup>

As can be seen, in line with H4, paired  $t$ -tests revealed that those in the negative motive and control conditions reported significantly higher desire for revenge than reconciliation, whereas those in the positive motive condition reported significantly higher desire for reconciliation than revenge. In addition, Dunnett’s  $t$ -tests revealed (a) that desire for revenge was not significantly different in the negative motive and control conditions, but was significantly lower in the positive motive condition than in the control condition and (b) that desire for reconciliation was lower in the negative motive condition than in the control condition, and was significantly higher in the positive motive condition than in the control condition. In sum, results provide support for Hypothesis 4.<sup>7</sup>

#### PLS SEM

Next, we performed a PLS SEM to test the paths indicated in our model (Fig. 2, Panel B). The significance of the parameters

<sup>6</sup> Significant paired  $t$ -tests comparing desire for revenge and reconciliation are denoted with a subscript of ‘p’ on the top mean (desire for revenge) while revenge and reconciliation means with a subscript of ‘d’ are significantly different than the control condition using Dunnett’s procedure.

<sup>7</sup> Four considerations explain why the means are below the scale midpoint. First, relatively low revenge scores are consistent with the means reported in numerous studies on customer revenge (Bonifield and Cole 2007; Gelbrich 2010), vengeance (Bechwati and Morrin 2003), rage (McCullough et al. 2009) and complaining (Bougie, Pieters, and Zeelenberg 2003), while relatively low reconciliation scores are consistent with the vast majority of past research on reconciliation in social psychology (McCullough et al. 1998; Shnabel and Nadler 2008), organizational psychology (e.g., Aquino, Tripp, and Bies 2001, 2006; Crossley 2009), and service failure literatures (e.g., Bonifield and Cole 2007). These studies demonstrate that revenge and reconciliation are low base-rate phenomena, and thus it is not surprising that the means are low in our studies as well. Second, while the means fall below the scale midpoint, across Studies 2 and 3, 25.4% of the participants scored higher than 4 on desire for revenge, while 17.1% scored higher than 4 on desire for reconciliation. Third, we maintain that what matters most is the relative level of these two desires, as this difference determines the relative likelihood of the subsequent (revenge vs. reparatory) behaviors. Indeed, across Studies 2 and 3, participants who scored higher on desire for revenge than reconciliation were significantly more likely to engage in retaliatory behaviors (75.3%) than in reparatory behaviors (24.7%),  $\chi^2(1) = 91.01, p < .001$ . On the other hand, participants who scored higher on desire for reconciliation than revenge were significantly more likely to engage in reparatory behaviors (58.7%) than revenge behaviors (41.3%),  $\chi^2(1) = 9.01, p < .01$ . In sum, apart from their absolute levels, the difference between customers’ desire for revenge and reconciliation has important practical implications, as it determines whether customers engage in a relatively high level of revenge vs. reparatory behaviors. Finally, these two desires, despite their relatively low levels, are strong predictors of the reparatory and retaliatory behaviors (see our SEM models in Studies 2 and 3), which are especially important for managers.

Table 4  
Model variables as a function of the manipulations.

(Panel A) Model variables as a function of motive condition (Study 2)

	Motive condition						One-way ANOVA	
	Negative		Control		Positive			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>F</i>	$\eta^2$
Motives	5.39 <sub>d</sub>	1.05	4.58	0.97	3.56 <sub>d</sub>	1.27	54.27***	.31
Anger	5.76	1.38	5.57	1.29	3.51 <sub>d</sub>	1.73	57.55***	.33
Desire revenge	3.49 <sub>p</sub>	1.76	3.43 <sub>p</sub>	1.69	2.18 <sub>d,p</sub>	1.21	18.29***	.13
Desire reconciliation	1.71 <sub>d</sub>	0.76	2.25	1.02	3.32 <sub>d</sub>	1.44	42.93***	.26
Retaliatory behaviors	4.99 <sub>p</sub>	1.09	4.76 <sub>p</sub>	1.16	3.52 <sub>d</sub>	1.16	39.08***	.25
Reparatory behaviors	4.12	1.22	4.17	1.33	3.69 <sub>d</sub>	1.22	3.71*	.03

(Panel B) Model variables as a function of intervention condition (Study 3)

	Intervention condition								One-way ANOVA	
	Control		Apology		Compensation		Apol + Comp			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>F</i>	$\eta^2$
Motives	4.21	1.15	3.89	1.06	4.03	0.96	3.73 <sub>d</sub>	1.13	3.73*	.03
Anger	5.34	1.51	5.03	1.38	4.70 <sub>d</sub>	1.38	4.00 <sub>d</sub>	1.40	17.27***	.12
Desire revenge	3.45 <sub>p</sub>	1.52	3.02	1.49	2.87 <sub>d</sub>	1.46	2.66 <sub>d,p</sub>	1.38	5.53***	.04
Desire reconciliation	2.64	1.10	3.11 <sub>d</sub>	1.16	2.93	1.13	3.71 <sub>d</sub>	1.26	15.77***	.11
Retaliatory behaviors	4.73 <sub>p</sub>	1.04	4.29 <sub>d,p</sub>	1.19 <sub>d</sub>	4.34 <sub>p</sub>	0.90	4.07 <sub>d</sub>	1.14	6.96***	.05
Reparatory behaviors	4.08	1.14	3.94	1.23	4.00	1.25	3.91	1.20	0.41	.00

Note. Dunnett's tests were only done when ANOVA was significant. Means with 'd' differ from the control condition based on Dunnett's test ( $p < .05$ ). Means with subscript 'p' differ from the mean below it using paired sample *t*-test (see text for mixed model ANOVA results). Means differ from the scale midpoint of 4 ( $p < .05$ ) unless underlined.

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p < .001$ .

is based on a bootstrapping procedure using 600 resamples. The motive manipulation is represented by two dummy variables, which contrast the negative motive and positive motive condition with the no motive control condition. Supporting our earlier motive manipulation check results, these paths indicate that, compared to the control condition, the negative motive condition led to a significant increase in inferred negative motives, whereas the positive motive condition led to a significant decrease in inferred negative motives. Moving downstream in the model, results confirmed the remaining logic of our model. Motives predicted anger, and anger was associated with higher desire for revenge and lower desire for reconciliation. Desire for revenge, in turn, was associated with higher retaliatory and reparatory behaviors – a finding we return to in the discussion – while desire for reconciliation was associated with lower engagement in retaliatory behaviors and higher involvement in reparatory behaviors.

#### Indirect effects and mediation

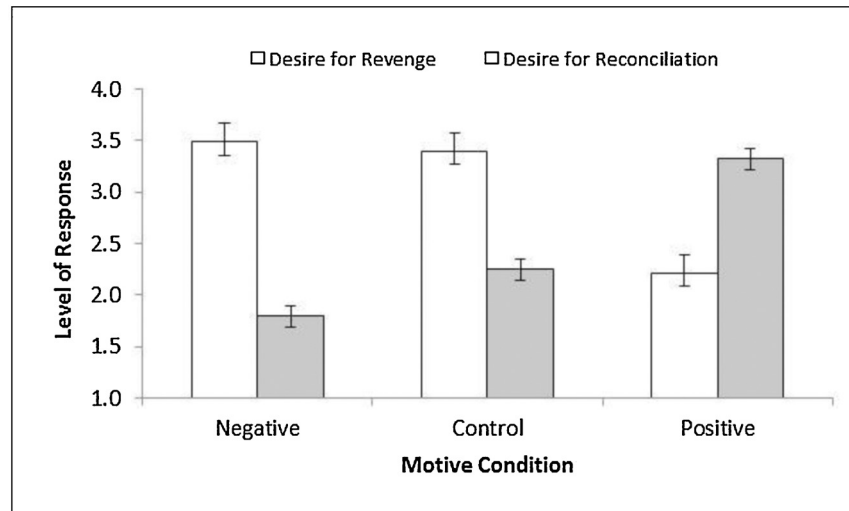
To formally test H2a–H3b, we next conducted tests of the relevant indirect effects using the Preacher and Hayes (2008) bootstrapping procedure, and tests for partial/full mediation using the Baron and Kenny (1986) procedure, as outlined in Study 1. As can be seen in the middle of Table 3, and supporting H2a and H2b (inferred motives' indirect route), inferred motives

had an indirect relationship with desire for revenge and desire for reconciliation, via anger, with both reflecting partial mediation. Moreover, consistent with Hypothesis 3a and 3b (inferred motives' direct route), inferred motives remained a significant predictor of desire for revenge and desire for reconciliation, even after controlling for anger (i.e., Path C' was significant in each case). Complementing these specific hypothesis tests, we also explored the six remaining indirect effects implied by the model. As can be seen in Table 3, five of the six indirect effects tests were significant, and, when mediation was present, mediation tests consistently indicated the presence of partial mediation. In sum, these tests provided additional support for our model.

#### Discussion of Study 2

Study 2 yielded three important findings. First, and consistent with H4, Study 2 provided experimental evidence that inferred firm motives determine the direction of customer desires after a double deviation. In particular, when customers inferred a positive motive for the double deviation, they were more likely to desire reconciliation than revenge. These results are important because they suggest, in contrast to what has been argued in the literature, that firms can have a “second chance” to repair relationships with customers following a double deviation under the right conditions. By comparison, when no motives were stated

Panel A



Panel B

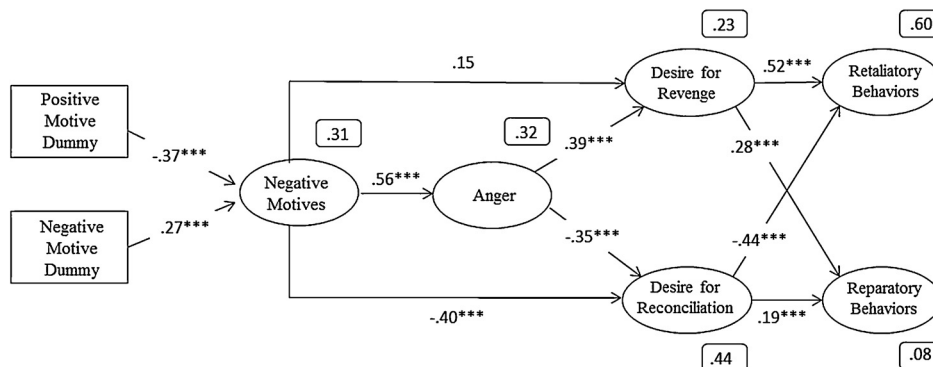


Fig. 2. (Panel A) Impact of stated motive on desires for revenge and reconciliation (Study 2). (Panel B) PLS model (Study 2). Note. Standardized path coefficients shown.  $R^2$  values shown in gray boxes. To simplify presentation, measurement model and the correlation between the dummy variables are not shown. For item loadings, see Appendix B. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$  (two-tailed).

(control condition) or when negative motives were clearly stated (negative motive condition), desire for revenge dominated the desire for reconciliation. Thus, similar to what has been argued in the literature, these double deviation contexts seem to leave no second chance for firms to repair their relationships with customers.

Second, supporting H2a–H3b, results indicated that inferred motives predicts desires for revenge and reconciliation both indirectly via anger and directly, after controlling for anger, reconfirming and extending findings from Study 1. Moreover, our PLS SEM results, combined with our tests of the remaining indirect effects and mediations implied in the model provided good overall support for the model.

Third, our PLS SEM suggested that customers experiencing a desire for revenge seem motivated to engage in wide range of possible behaviors, including retaliatory behaviors to punish the firm and reparatory behaviors that yield problem resolution. Importantly, our analysis clearly highlighted the beneficial effects of a desire for reconciliation, which was associated with more reparatory behaviors and less retaliatory behaviors. Indeed,

one of our key findings is that desire for reconciliation can work as a powerful antidote against customer retaliation.

### Study 3: impact of apologies and compensation

While Study 2 shows that firms can benefit by claiming positive motives for a double deviation, the positive motive condition used in Study 2 may be difficult for managers to implement. In particular, managers may not always have the time, opportunity, or ability to offer a clear, justifiable explanation, or both for the positive motives responsible for a double deviation. To address this issue, in Study 3, we explore the impact of concrete actions that firms can take to encourage customers to offer the firm a “second chance” following a double deviation. Specifically, we examine the isolated and combined effects of apologies and compensation – rather than explanations – on inferred firm motives and desires for revenge and reconciliation. In addition, complementing our PLS approach, we test the fit of the overall model using a covariance-based SEM approach.

### *The impact of firm actions on second chances: apology and compensation*

While it is well-established that apologies and compensation help firms recover from *initial* service failures (i.e., the firm's first chance) (e.g., Smith, Bolton, and Wagner 1999), little is known about their impact following a double deviation (i.e., the firm's second chance). Accordingly, we investigated whether these actions are strong enough to cancel out the effects of a double deviation, and if so, whether their positive effects operate via inferred firm motives. This detailed exploration of apologies and compensation represents our third major contribution.

#### *Apologies*

Research in marketing, psychology, and management has examined the effectiveness of apologies in repairing relationships after some kind of offense and service failure (Dirks, Lewicki, and Zaheer 2009; Kim et al. 2004; Smith, Bolton, and Wagner 1999). One reason apologies may encourage reconciliation is because apologies can help the victim rule out a transgressor's sinister motives (Hareli and Eisikovits 2006; Tomlinson, Dineen, and Lewicki 2004). Linking this work with our model's emphasis on inferred firm motives, an apology should decrease customers' anger and desire for revenge and increase their desire for reconciliation after a double deviation by improving customers' perceptions regarding the firm's motives for the double deviation.

#### *Compensation*

Beyond apologies, research suggests that compensation (e.g., a price reduction) effectively restores the customer–firm relationship by dissipating anger and dissatisfaction following a service failure (e.g., Grewal, Roggeveen, and Tsiros 2008; Mattila and Patterson 2004; Smith, Bolton, and Wagner 1999). Relevant to our model, compensation also communicates a firm's positive motives, as firms become willing to give up something of value to show their good faith and intentions (Desmet, De Cremer, and van Dijk 2011). Accordingly, compensation should decrease customers' anger and desire for revenge and increase their desire for reconciliation after a double deviation by improving customers' perceptions regarding the firm's motives for the double deviation.

#### *Combined interventions*

Notably, research shows that an apology, when combined with compensation, is more effective than either intervention alone (e.g., Mattila 2001). For example, apologies appear more sincere when accompanied by compensation that is perceived as costly for firms (Ohtsubo and Watanabe 2009). This is consistent with common wisdom that when parties apologize, the parties only “really mean it” if they are willing to “back up” the apology with a sacrifice that benefits the victim. The sacrifice accompanying compensation, in turn, is likely to communicate the transgressor's positive motive, thus reinforcing the effectiveness of the apology. Accordingly, we expected that combining an apology with compensation would be more effective at promoting a perception of positive motives, reducing anger, reducing

desire for revenge, and increasing desire for reconciliation, than offering “an apology alone” or “compensation alone.” This line of reasoning led to the following formal hypotheses, which together represent our third contribution.

**Hypothesis 5.** Apologies and compensation, especially when combined, result in a perception of more positive firm motives (H5a) and less anger (H5b) than when no intervention is offered.

**Hypothesis 6.** Inferred firm motives mediates the impact of apologies and compensation on anger.

**Hypothesis 7.** Firm intervention interacts with desire such that desire for revenge is greater than desire for reconciliation when no intervention is offered; desire for reconciliation is higher than desire for revenge when an apology is combined with compensation; and when the interventions are used in isolation, the difference between the two desires is not as pronounced as in either the no intervention or the apology plus compensation condition.

#### *Participants and procedures*

Undergraduates ( $N=434$ , 43 percent female, 81 percent Caucasian), who participated for course credit, read the core double-deviation scenario used in Study 2, and were randomly assigned to one of four conditions (no intervention/control vs. apology only vs. compensation only vs. apology + compensation; Appendix B). Participants then completed the same dependent variables described in Study 2.

#### *Perceived realism of scenario*

Once again, the two-item realism index ( $r = .62, p < .001$ ) was significantly above the scale midpoint of 4 overall ( $M = 5.34, p < .001$ ), and within each of the four experimental conditions ( $p < .001$ ), supporting the realism of our scenario.

#### *Presence of a double deviation*

In addition, the three-item perceived problem resolution index was reliable at times 1 and 2 ( $\alpha = .81$  and  $.80$ ) and was significantly lower at time 2 ( $M = 1.63$ ) than at time 1 ( $M = 3.29, p < .001$ ), once again indicating that our core scenario represents a double deviation.

#### *Covariance-based structural equation modeling approach*

In Studies 1 and 2, we utilized PLS SEM to provide a preliminary test of the paths within our theoretical framework (following Hair et al. 2012). In Study 3, we aimed to confirm our theory as a whole using a covariance-based structural equation modeling (CB SEM) approach. Compared to a PLS approach, CB SEM has unique and well-established strengths, such as the ability to test a model as a whole, incorporate second-order constructs, control for common method bias, and compare rival structures. Based on the simulations performed by Reinartz, Haenlein, and Henseler (2009), CB SEM also provides more accurate parameters with large sample sizes, a condition that is best fulfilled in Study 3 (compared to Studies 1 and 2).

### Measurement properties

Accordingly, to evaluate the construct validity of our scales, we first performed a CFA that included negative motives (four items), anger (four items), desire for revenge (five items), desire for reconciliation (five items) and the two second-order constructs (retaliatory and reparatory behaviors). As in Study 2, retaliatory behaviors were reflected in negative word-of-mouth (three items), vindictive complaining (three items) and third-party complaining for negative publicity (four items) and reparatory behaviors were reflected in problem-solving complaining (three items) and third-party complaining for dispute resolution (four items). This measurement model fit the data well:  $\chi^2(540) = 1385.82$ ,  $p < .001$ , CFI = .92, TLI = .91, RMSEA = .062. Moreover, each first-order construct had acceptable convergent validity with large and significant  $\lambda$ s ( $ps < .001$ ) (Appendix A), and all but one of the composite reliabilities were greater than .70 (Table 2, Panel C). In addition, the standardized loading ( $\gamma$ s) of the first-order constructs on the second-order constructs were substantive and significant ( $ps < .001$ ) and the square root of the average variance extracted for each construct was greater than its correlations with the other constructs. With the quality of the measures confirmed, we now turn to our main results concerning the impact of apologies and compensation on the model variables.

### Results

#### Effect of apologies and compensation on inferred firm motives

We first conducted a one-way ANOVA to test H5a, concerning the impact of the interventions on inferred firm motives. Descriptive and inferential statistics associated with this analysis are shown in Table 4 (Panel B). In support of H5a, this analysis yielded a significant effect of condition on inferred negative motives. To follow up the omnibus ANOVA, we conducted pairwise comparisons using Dunnett's  $t$ -test procedure (control vs. each of the remaining conditions), and single-sample  $t$ -tests evaluating each mean's departure from the scale midpoint of 4 (with values  $>4$  indicating a perception of negative motives, and values  $<4$  indicating a perception of positive motives). As can be seen, while the apology-only ( $M = 3.89$ ) and compensation-only conditions ( $M = 4.03$ ) did not differ significantly from the control condition ( $M = 4.20$ ), inferred firm motives were significantly lower in the apology + compensation condition ( $M = 3.73$ ) than in the control condition. Moreover, inferred firm motives were significantly below the scale midpoint in the apology + compensation condition, indicating a perception of *positive motives*, whereas means within the remaining conditions did not differ significantly from the scale midpoint. Thus, consistent with H5a, the apology + compensation condition led to a significant improvement in inferred firm motives (vs. control), ultimately resulting in a perception of positive firm motives.

#### Effect of apologies and compensation on anger

To test H5b, we conducted a one-way ANOVA evaluating the effect of the interventions on anger. As before, we followed

up the ANOVA with Dunnett's tests and single sample  $t$ -tests. As can be seen in Table 4 (Panel B), this analysis yielded a significant effect of intervention condition on anger. Dunnett's  $t$ -tests indicated that compensation and apology + compensation conditions reported less anger than the control condition, while single sample  $t$ -tests revealed significant levels of anger (above the scale midpoint of 4) in each condition except the apology + compensation, in line with H5b.

#### Effect of interventions on anger via inferred motives

To test the hypothesis that inferred firm motives mediate the impact of the interventions on anger (H6), we next conducted tests of the indirect effects of the three intervention conditions (vs. control) on anger via inferred motives using the Preacher and Hayes (2008) procedure outlined in Studies 1 and 2. As before, we also performed tests for mediation, using Baron and Kenny's (1986) criteria. Results are summarized in the bottom third of Table 3. As can be seen, apologies had an indirect effect on anger via inferred motives; compensation had only a direct effect on anger; and apologies + compensation had an indirect effect on anger via inferred motives which represented partial mediation.

#### Effect of interventions on desires for revenge versus reconciliation

Next, to test the hypothesis that apologies and compensation (in isolation, and especially when combined) would reduce the desire to seek revenge and enhance the desire to seek reconciliation (H7), we conducted a 4 (intervention: no intervention/control vs. apology only vs. compensation only vs. apology + compensation)  $\times$  2 (desire: revenge vs. reconciliation) mixed-model ANOVA, with intervention condition serving as a between-participants variable and type of desire serving as a within-participants variable. In line with H7, this analysis revealed a significant two-way interaction between intervention condition and type of desire ( $F(3, 405) = 15.10$ ,  $p < .001$ ). The means associated with this interaction are shown in Table 4 and are depicted in Fig. 3 (Panel A). The comparison tests tell a clear story that is consistent with H7: (1) desire for revenge was significantly higher than desire for reconciliation in the control condition, the two desires were not significantly different in the compensation and apology only conditions, and desire for reconciliation was significantly higher than desire for revenge in the apology + compensation condition; (2) compensation when used in isolation and in combination with an apology led to a significant decrease in desire for revenge; and (3) an apology when used in isolation and in combination with compensation led to a significant increase in desire for reconciliation. As a set, these results indicate that while apologies and compensation provide some benefit when used in isolation, combining these interventions is the only effective approach for reducing desire for revenge and increasing desire for reconciliation, and ensuring that desire for reconciliation is stronger than desire for revenge. Overall, these tests support H7.

A bar chart comparing the 'Level of Response' (Y-axis, 1.0 to 4.0) for two variables: 'Desire for Revenge' (white bars) and 'Desire for Reconciliation' (gray bars) across four 'Intervention Conditions' (X-axis): Control, Apology, Compensation, and Apology + Compensation. Error bars are present on all bars.

Intervention Condition	Desire for Revenge	Desire for Reconciliation
Control	~3.4	~2.7
Apology	~3.0	~3.1
Compensation	~2.9	~2.9
Apology + Compensation	~2.7	~3.7

Figure 1 is a path diagram illustrating the proposed model. The diagram shows the relationships between several variables, with standardized path coefficients and R-squared values indicated.

**Variables and R-squared values:**

- Compensation Dummy (R-squared: .14)
- Apology Dummy (R-squared: .08)
- A + C Dummy (R-squared: .27)
- Negative Motives (R-squared: .08)
- Anger (R-squared: .21)
- Desire for Revenge (R-squared: .14)
- Desire for Reconciliation (R-squared: .27)
- Retaliatory Behaviors (R-squared: .58)
- Reparatory Behaviors (R-squared: .13)

**Path Coefficients:**

- Compensation Dummy to Negative Motives: -.16\*\*
- Compensation Dummy to Anger: -.16\*\*
- Apology Dummy to Negative Motives: -.08
- Apology Dummy to Anger: -.18\*
- A + C Dummy to Negative Motives: -.32\*\*\*
- A + C Dummy to Anger: -.34\*\*\*
- Negative Motives to Anger: .28\*\*\*
- Anger to Desire for Revenge: .19\*\*
- Anger to Desire for Reconciliation: -.39\*\*\*
- Anger to Retaliatory Behaviors: .26\*\*\*
- Anger to Reparatory Behaviors: -.24\*\*\*
- Desire for Revenge to Retaliatory Behaviors: .47\*\*\*
- Desire for Reconciliation to Retaliatory Behaviors: -.52\*\*\*
- Desire for Reconciliation to Reparatory Behaviors: .28\*\*\*

ensuring that desire for reconciliation is higher than desire for revenge (H7). Moreover, consistent with our model, inferred motives mediates the impact of the interventions on anger, which in turn predicts desire for revenge and reconciliation. As a set, the present results indicate that even if firms cannot offer a comprehensive explanation of the positive motives behind a double deviation (as in Study 2), it is not too late to recover if firms offer an apology plus compensation. Restated, apologies when paired with compensation offer firms a second chance following double deviations.

## General discussion

Service failures followed by failed recoveries (i.e., *double deviations*) represent a serious threat to firms hoping to retain valued customers. To advance work in this area, we articulated an expanded process model of responses to double deviations (Fig. 1, Panel B), and reported three studies testing a series of hypotheses derived from our analysis. Table 5 summarizes our key goals, hypotheses, and results. At the broadest level, we were interested in establishing the role of inferred motives following a double deviation, highlighting that desire for reconciliation is possible under the right (motive) conditions, and demonstrating concrete actions that firms can take to encourage customers to desire reconciliation over revenge. Our analysis led to seven hypotheses, which we tested across a three studies, using both field and experimental methodologies. As shown in Table 5, the hypotheses derived from the model garnered strong support.

### Theoretical contributions

#### Role of inferred firm motives following a double deviation

Our first contribution is to establish the role of inferred firm motives following a double deviation. Study 1 established that inference of firm motives is a key mediator linking previously studied cognitions (blame, severity, and fairness) with anger and a desire for revenge: airline customers who experienced a double deviation believed the company was driven by negative motives when they perceived a low level of procedural fairness at the recovery level, blamed the double deviation on the firm, and thought the outcome of the service encounter was severe. Inferred negative motives then led consumers to experience higher levels of anger and desire for revenge. In sum, inference of firm motives appears to be a key bottleneck through which severity, blame, and fairness are associated with negative consumer responses post double deviation.

#### Second chances are possible following a double deviation

Our second contribution is to highlight the possibility of second chances, and the conditions under which second chances are most likely. Researchers interested in service failures and double deviations have typically focused on negative response such as exit, switching or revenge (e.g., Grégoire, Laufer, and Tripp 2010; McColl-Kennedy et al. 2009). Yet in Study 2, we show that when firms explain their positive motives for a double deviation, customers report a stronger desire for reconciliation than revenge, which in turn predicts lower retaliatory behaviors. By

recognizing the possibility of reconciliation (rather than solely focusing on revenge), and comparing relative desires for reconciliation and revenge, Study 2 offers the first evidence that firms still have a second chance to reconcile and repair a relationship with a customer, despite the presence of a double deviation.

We also find that even a desire for revenge, and not just a desire for reconciliation, leads to active reparatory behaviors, such as problem-solving complaining and complaining to a website to find a resolution. While this result seems paradoxical, it suggests that consumers with a strong desire for revenge may be motivated to use all means possible to restore fairness with the firm. This finding is also consistent with research that shows forgiveness is more likely to occur if fairness has first been served (e.g., Exline et al. 2003). Desire for reconciliation, on the other hand, resulted in a much less conflicting set of behaviors. Namely, higher desire for reconciliation predicted lower engagement in retaliatory behaviors, and greater engagement in reparatory behaviors. Actually, the effect of a desire for reconciliation is worth highlighting: this desire strongly predicts lower levels of retaliatory behaviors in both Studies 2 and 3 ( $-.44$  and  $-.52$ , respectively). To the best of our knowledge, a strong desire for reconciliation appears to be one of the best antidotes reported to date to prevent costly retaliatory behaviors.

More broadly, results of Studies 2 and 3 suggest that future theories must account for the co-occurrence of revenge and reconciliation, such as when customers badmouth a firm while also trying to resolve their conflict. In such cases, it may be more useful to think of responses as not “revenge or reconciliation,” but instead as “revenge *more (or less) than* reconciliation.” Our findings indicated that the absolute valence of customer desire follows the valence of inferred firm motives. When motive is positive, desire for reconciliation is higher than desire for revenge, and when motive is negative, desire for revenge occurs more than desire for reconciliation.

#### Apologies + compensation promote second chances following a double deviation

Our third contribution is to demonstrate actions firms can take to encourage customers to desire reconciliation (as opposed to revenge), and thus offer the firm a second chance following a double deviation. Results from Study 3 suggest that, after a double deviation, an apology or a compensation used in isolation have limited positive effects on customer responses. Indeed, the double deviation context appears to require a stronger intervention that combines an apology with compensation. Specifically, when firms paired an apology with compensation, customers inferred that the firm had positive motives, which in turn predicted lower levels of anger and desire for revenge and higher desire for reconciliation. Moreover, when an apology was paired with compensation, customers showed a stronger desire for reconciliation than revenge, again demonstrating that customers who have experienced a double deviation will offer a firm a second chance, under the right conditions.

#### Implications for the service failure literature

In this research, we focused on responses to double deviations as opposed to single deviations (i.e., initial service failures)

Table 5  
Summary of contributions, goals, hypotheses and results.

Contribution	Goal	Hypothesis	Supported in
Role of inferred firm motives following a double deviation	Inferred firm motives as a mediator of established cognitions	<b>H1:</b> Inferred firm motives mediates relationships of blame (H1a), severity (H1b), and fairness (H1c) with anger.	Study 1
	Indirect (emotional) route of inferred firm motives on desires for revenge and reconciliation	<b>H2:</b> The relationship between inferred firm motives and desire for revenge (H2a) and desire for reconciliation (H2b) is mediated via anger.	H2a (Studies 1–3) H2b (Studies 2–3)
	Direct (cognitive) route of inferred firm motives on desires for revenge and reconciliation	<b>H3:</b> Inferred firm motives is related to desire for revenge (H3a) and desire for reconciliation (H3b) after controlling for anger.	H3a (Studies 1–3) H3b (Studies 2–3)
Second chances are possible following a double deviation	Impact of stated motive on desires for revenge versus reconciliation	<b>H4:</b> Inferred firm motives interacts with desire such that when inferred motive is negative, desire for revenge is greater than desire for reconciliation, whereas when inferred motive is positive, desire for reconciliation is higher than desire for revenge.	Study 2
Apologies + compensation promote second chances following a double deviation	Impact of firm actions on inferred firm motives and anger	<b>H5:</b> Apologies and compensation, especially when combined, result in a perception of more positive firm motives (H5a) and less anger (H5b) than when no intervention is offered.	Study 3
	Inferred firm motives as a mediator of firm actions	<b>H6:</b> Inferred firm motives mediates the impact of apologies and compensation on anger.	Study 3
	Impact of firm actions on desire for revenge versus reconciliation	<b>H7:</b> Firm intervention interacts with desire such that desire for revenge is greater than desire for reconciliation when no intervention is offered; desire for reconciliation is higher than desire for revenge when an apology is combined with compensation; and when the interventions are used in isolation, the difference between the two desires is not as pronounced as in either the no intervention or the apology plus compensation condition.	Study 3

for two reasons. First, customers are more likely to get revenge against firms and cause them costly damages in this context (e.g., Bechwati and Morrin 2003; Grégoire, Tripp, and Legoux 2009). Second, as a result, double deviations represent a conservative context in which to explore whether firm interventions can effectively lead customers to infer positive motives and display a desire for reconciliation following a succession of failures.

With that said, the present framework could yield valuable insights into responses to initial service failures as well. Specifically, our results highlight a new cognitive process – the inference of firm motives – that should also influence customer responses after a single deviation. When a negative and unexpected event occurs, most people spontaneously infer the motive of the causal agent, and this judgment is very influential in determining subsequent emotional and behavioral responses (e.g., Crossley 2009). Our findings suggest that this cognitive process could also take place after an initial service failure, and that it could have more impact than the established cognitive processes based on fairness theory, attribution theory and severity. With

these ideas in mind, we encourage future research to explore how inferred motives may impact positive customer responses following an initial serviced failure.

### Managerial implications

The present work suggests several important managerial implications. Explanations about the occurrence of the failure (Study 2) as well as apologies paired with compensation (Study 3) appear to be effective ways for firms to reduce negative customer responses to double deviations, in part, due to their ability to reduce negative inferred firm motives. Interestingly, in Study 2, we found no difference in levels of anger, desire for revenge, and retaliatory behaviors between the negative motive and no motive/control conditions. This pattern of effects suggests that when customers experience a double deviation, they tend to make spontaneous inferences about firm's negative motives, even in the absence of (explicitly negative) motive-related cues. This interpretation is consistent with research in psychology

and management on sinister and hostile attribution errors. After experiencing harm, in the absence of clear evidence to the contrary, victims are biased to make negative attributions rather than to withhold making attributions (Epps and Kendall 1995; Kramer 1994). Therefore, it is essential that firms find a way to convey their positive motives to customers, lest customers default to inferring negative motives. To accomplish this, our results suggest that firms should first attempt to explain their positive motives for the service failure, failed recovery, or both. If an explanation is not possible, firms should pair an apology with compensation if they are not able to provide a clear explanation. In turn, customers may continue patronizing the firm and be less likely to engage in retaliatory behaviors. However, past research suggests that if an apology does not cause customers to perceive a positive motive, it may be ineffective or even backfire (cf. Struthers et al. 2008).

To enhance an apology's effectiveness, our results suggest that firms should compensate the customer, and we believe this recommendation could apply after both a single deviation and a double deviation. We found that only when apologies were paired with compensation did desire for reconciliation overwhelm desire for revenge. This may occur because only then is the apology perceived as sincere enough for one to infer that a firm had benign motives. The amount of compensation required is still an open question. Interestingly, recent work shows that overcompensation (i.e., more than 100 percent of the loss) actually leads to lower customer satisfaction than does a regular level of compensation (i.e., 100 percent or less than the loss) (Gelbrich 2011).

Finally, we strongly encourage managers to be mindful of aspects of the initial service failure (e.g., severity) and recovery (e.g., procedural fairness) that influence inference of firm motives. Based on Study 1, customers who experience a severe service failure, or perceive the procedures used by the firm to be unfair, are more likely to infer negative motives, leading to anger and desire for revenge. These customers should be the object of special attention. Presumably, frontline employees can play an important role in identifying these customers after the initial service failure, or failed recovery, and helping them to perceive a positive motive. Training employees to recognize the importance of perceived motives, and empowering them to take immediate actions that encourage perception of positive motives (e.g., an apology paired with compensation), could help firms recover from a double deviation, or, even better, mitigate the dissatisfaction associated with the initial service failure, preventing additional conflicts.

#### *Limitations and future directions*

Before closing, we consider three limitations of the present studies and suggest directions for future research. First, while we tested our model in applied and experimental settings and across two contexts (airline industry, electronics), confidence in the model would be strengthened if it could be supported across a wider range of settings. Second, while our expanded theoretical model postulated indirect effects, results supported the presence of both indirect and direct effects. Clearly, the

presence of additional direct effects on variables beyond the predicted proximal mediator complicates our model. As Zhao, Lynch, and Chen (2010, p. 198) note, "Although full mediation is the gold standard," Iacobucci (2008, p. 12) notes that, "when all tests are properly conducted and reported, the majority of articles conclude with 'partial mediation'." In addition, the direct effects were all in a meaningful direction. Nevertheless, the direct effects suggest a more complicated process than a purely indirect model assumes, and future research aimed at understanding this process is warranted. Third, as our measures were based on self-reported intentions, future research employing behavioral measures is encouraged.

Beyond those just noted, the present studies raise several additional questions for future research. One direction for future research is to better understand the co-occurrence of revenge and reconciliation. Is there a sequence of revenge then reconciliation? And does that sequence hold for behaviors as well as desires? Another task for future research is to identify other factors that could affect customers' inference of negative or positive motives. For example, Gorn, Jiang, and Johar (2008) suggest consumers are more likely to give CEOs the benefit of the doubt during a public relations crisis when the CEO has a "baby face" (vs. more mature features). Accordingly, an interesting question for future research is whether customers may also base their inference of firm motives on superficial cues such as the physical appearance or the emotional predisposition of the frontline employee, or even the retail environment or servicescape.

It is also important to recognize that service failures always take place in a relational context. As such, it would be valuable to examine the effect of a strong prior relationship within the context of our model. On the one hand, having a prior relationship with a firm has been shown to lead customers to infer more positive motives for a price increase (Homburg, Hoyer, and Koschate 2005). On the other hand, research has also shown that customers who have the strongest relationship with a firm prior to a service failure often take the most revenge against the firm following a service failure (Grégoire and Fisher 2008; Grégoire, Tripp, and Legoux 2009). Taken together, these findings suggest that the impact of prior relationships with the firm may have both positive and negative implications for responses within the context of our model.

In addition, there are likely other dimensions of motives besides valence that deserve attention. For instance, how does the perceived intentionality of a double deviation affect responses to a double deviation (e.g., was it unintentional rather than intentional, and if unintentional, was it "negligent" or an "honest mistake"?)?

Finally, there is a series of potential moderators that could affect the relationships within our model, and their effects should be considered in future research. For instance, the presence of important switching costs (positive and negative) or the absence of alternatives could moderate the impacts of inferred motives on the diverse components of our model. In addition, Zourrig, Chebat, and Toffoli (2009) propose that cross-cultural differences may strongly moderate customers' propensity to get revenge or reconcile.

## Appendix A. Scales

	Loadings from SEMs		
	Study 1 (PLS)	Study 2 (CB)	Study 3 (CB)
<b>Blame attribution</b>			
- Overall, the firm was. . .			
. . . not at all responsible for the failure (1) – . . . totally responsible for the failure (7).	.64	–	–
- Overall, the service failure was. . .			
. . . in no way the firm's fault (1) – completely the (airline's or firm's) fault (7).	.91	–	–
- To what extent do you blame the firm for what happened? <sup>a</sup>			
. . . Not at all (1) – completely (7).	.92	–	–
<b>Failure severity</b>			
The service failure caused me. . .			
. . . minor problems (1) – . . . major problems (7). <sup>a</sup>	.90	–	–
. . . small inconveniences (1) – . . . big inconveniences (7). <sup>a</sup>	.92	–	–
. . . minor aggravation (1) – . . . major aggravation (7). <sup>a</sup>	.88	–	–
<b>Procedural fairness</b>			
The firm gave me an opportunity to have a say in the handling of the problem. <sup>a</sup>	.70	–	–
In the handling of the failures, the firm gave me accurate information. <sup>a</sup>	.74	–	–
In the handling of the failures, the firm answered my request in a timely manner. <sup>a</sup>	Deleted	–	–
The firm was flexible in the way it responded to my concerns. <sup>a</sup>	.83	–	–
<b>Interactional fairness</b>			
- The employee(s) who interacted with me . . .			
. . . treated me in a polite manner. <sup>a</sup>	.90	–	–
. . . gave me detailed explanations and relevant advice. <sup>a</sup>	.79	–	–
. . . treated me with respect. <sup>a</sup>	.93	–	–
<b>Distributive fairness</b>			
- Referring to all outcomes you received, indicate your level of agreement with the following statements. <sup>a</sup>			
Overall, the outcomes I received from the service firm were fair. <sup>a</sup>	.94	–	–
Given the time, money and hassle, I got fair outcomes. <sup>a</sup>	.96	–	–
I got what I deserved. <sup>a</sup>	.92	–	–
<b>Inferred firm motives</b>			
- The firm. . .			
. . . had good intentions (1) – . . . had bad intentions (7). <sup>a,b,c</sup>	.76	.86	.79
. . . did not intend to take advantage of me (1) – intended to take advantage of me (7). <sup>a,b,c</sup>	.72	.82	.83
. . . was primarily motivated by my interest (1) – . . . its own interest (7). <sup>a,b,c</sup>	.56	.71	.44
. . . did not try to abuse me (1) – . . . tried to abuse me (7).	.90	.84	.67
<b>Anger</b>			
- During the incident, I felt. . .			
outraged <sup>a,b,c</sup>	.88	.92	.84
resentful <sup>a,b,c</sup>	.85	.93	.90
indignation <sup>a,b,c</sup>	.84	.94	.86
angry <sup>a,b,c</sup>	.87	.92	.86
<b>Desire for revenge</b>			
- Because of this incident, I wanted to. . .			
. . . punish the firm in some way. <sup>a,b,c</sup>	.90	.88	.79
. . . cause inconvenience to the firm. <sup>a,b,c</sup>	.92	.89	.87
. . . get even with the service firm. <sup>a,b,c</sup>	.90	.89	.88
. . . make the service firm get what it deserved. <sup>a,b,c</sup>	.91	.92	.94
. . . make them pay for the poor service. <sup>a,b,c</sup>	.88	.92	.94
<b>Desire for reconciliation</b>			
- Because of this incident, I wanted to. . .			
. . . give the firm back a new start, a renewed relationship. <sup>b,c</sup>	–	.82	.76
. . . accept the humanness, flaws, and failures of the firm. <sup>b,c</sup>	–	.82	.79
. . . try to make amends toward the firm. <sup>b,c</sup>	–	.85	.82
. . . accept the firm despite what happened. <sup>b,c</sup>	–	.88	.80
. . . try to make an effort to be more friendly and concerned toward the firm. <sup>b,c</sup>	–	.87	.78
<b>Retaliatory behaviors</b>			
<b>Vindictive complaining</b>			
- I complained to the firm to. . .			
. . . give a hard time to the representatives. <sup>a,b,c</sup>	–	.91	.65
. . . be unpleasant with the representatives of the company. <sup>a,b,c</sup>	–	.92	.90
. . . make someone from the organization pay for their services. <sup>a,b,c</sup>	–	.74	.86

Appendix A (Continued)

	Loadings from SEMs		
	Study 1 (PLS)	Study 2 (CB)	Study 3 (CB)
<b>Third-party complaining for negative publicity (as construct score in SEM)</b>	–	.78	.61
- I complained to a website. . .			
. . .to have it make public the behaviors of the firm. <sup>a,b,c</sup>	–	.75	.83
. . .to have it report my experience to other consumers. <sup>a,b,c</sup>	–	.77	.90
. . .so that it could spread the word about my misadventure. <sup>a,b,c</sup>	–	.90	.79
. . .so that my experience with the firm would be known. <sup>a,b,c</sup>	–	.86	.73
<b>Negative word-of-mouth</b>	–	.92	.90
- Since the double deviation, . . .			
. . .I spread negative word-of-mouth about the firm. <sup>a,b,c</sup>	–	.96	.85
. . .I denigrated the firm to my friends. <sup>a,b,c</sup>	–	.86	.84
. . .When my friends were looking for a similar product or service, I told them not to buy from this firm. <sup>a,b,c</sup>	–	.87	.88
<b>Reparatory behaviors</b>			
<b>Problem-solving complaining (as construct score in SEM)</b>	–	.33	.45
- I complained to the firm to . . .			
. . .constructively discuss what happened. <sup>b,c</sup>	–	.81	.75
. . .try to find a satisfactory solution for both parties. <sup>b,c</sup>	–	.92	.94
. . .work with the firm to solve the problem. <sup>b,c</sup>	–	.92	.79
<b>Third-party complaining for problem resolution (as construct score in SEM)</b>	–	.99	.78
- I complained to a website. . .			
. . .to have others help me resolve my disagreement with the firm. <sup>b,c</sup>	–	.70	.75
. . .to ask others about the right approach to deal with the firm. <sup>b,c</sup>	–	.90	.90
. . .to solicit the expertise of others about my issues with the firm. <sup>b,c</sup>	–	.88	.82
. . .so others could advise me on the best way to reach a settlement. <sup>b,c</sup>	–	.89	.88

<sup>a</sup> Items used in Study 1.

<sup>b</sup> Items used in Study 2.

<sup>c</sup> Items used in Study 3.

Appendix B. Core scenario and manipulation used in Studies 2 and 3

Core double deviation scenario (common to all participants in Studies 2 and 3):

Sam had a \$400 budget to buy a new video game console and decided to make the purchase at a local electronic equipment store, “Dave’s Electronics”. Before driving the 20 minutes to the store, Sam called to see if they had the video game console in stock, and the person on the phone said they did. When Sam arrived, however, the console was not in stock. They ordered a new one, after making Sam pay for it upfront, and Sam had to return the following week to pick it up, driving another 20 minutes each way. After arriving at the store the following week, Sam asked a salesperson to fetch the reserved console out of the stock room. Then Sam saw the salesperson help another customer for 30 minutes before handing Sam the video game console.

Study 2: Motive manipulation conditions

Condition	Manipulation
Negative motive	Sam had heard that store rewarded salespeople for making new sales over providing service on former sales. Sam also overheard the store owner tell the salesperson that another customer was more important than Sam “because the other guy wants to buy a \$3000 high-def TV; close that sale before he changes his mind.” As a result, Sam was neglected by the salesperson.
No motive	No additional information.
Positive motive	Upon finally handing Sam the console, the salesperson explained that he helped the other customer first because he knew the other customer was returning an identical video game console and he wanted to offer Sam the returned console for a reduced price to save Sam money. He then gave Sam a 20 percent discount on the console.

Study 3: Firm intervention manipulation conditions

Condition	Manipulation
Control	After a 30-minute wait, the salesperson came over and handed Sam the Console.
Apology only	After a 30-minute wait, the salesperson came over and said: “I am so sorry for the delay; it’s my fault. I feel very guilty that you wasted a lot of time standing here waiting.” He then handed Sam the console and after making sure Sam needed nothing more, walked away.
Compensation only	After a 30-minute wait, the salesperson came over and handed Sam the console. He also gave Sam a voucher for a 15 percent cash refund on the console purchase.
Apology + compensation	After a 30-minute wait, the salesperson came over and said: “I am so sorry for the delay; it’s my fault. I feel very guilty that you wasted a lot of time standing here waiting.” He then handed Sam the console and a voucher for a 15 percent cash refund on the console purchase, and after making sure Sam needed nothing more, walked away.

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