

Anger, frustration, and helplessness after service failure: coping strategies and effective informational support

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Abstract We examine the crucial role of helplessness in explaining idiosyncratic coping responses to anger and frustration after service failure (a). Moreover, we examine the mitigating effect of informational support (i.e., explanations) on these emotions (b). With respect to (a), it is argued that the coincidence of anger (frustration) and high levels of helplessness enhances vindictive nWOM (support-seeking nWOM), whereas the coincidence of anger (frustration) and low levels of helplessness enhances vindictive complaining (problem-solving complaining). With respect to (b), it is argued that a retrospective explanation mitigates anger, whereas a prospective explanation mitigates helplessness. Using partial least squares modeling, these assumptions are tested and supported in an experiment and in a field survey with hotel guests. Finally, we delineate implications for theory and practice.

Keywords Anger · Frustration · Helplessness · Service failure · Coping responses · Negative word-of-mouth · Complaining · Informational support · Explanations

Introduction

Customers often seek to attribute responsibility for service failures (Folkes 1984; Hess et al. 2003; Weiner 2000). The attribution process is affected by a hedonic bias, which drives people to attribute failures to external or situational

sources rather than to themselves (Weiner 1985). Drawing on the attribution and appraisal theories of emotion, prior research shows that blaming external sources (i.e., providers) tends to trigger anger, whereas blaming situational sources (i.e., unfavorable conditions) tends to trigger frustration (Roseman 1991; Smith and Ellsworth 1985). Hence, anger and frustration often occur as a consequence of service failures (Laros and Steenkamp 2005; Nyer 2000; Richins 1997).

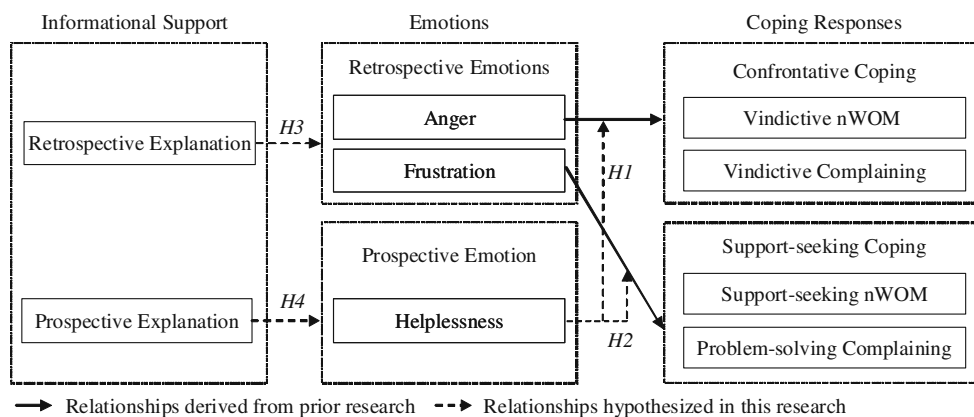
Appraisal theorists further show that people use different coping strategies to reduce such negative emotions (Lazarus 1991; Shaver 1985). Angry customers often engage in confrontative coping, that is, retaliatory behavior toward the blameworthy organization (Bolton et al. 2003). In particular, anger fosters vindictive nWOM and vindictive complaining (Bougie et al. 2003; Grégoire and Fisher 2008). Frustration, on the contrary, belongs to the type of emotions that do not imply blame attribution to a particular person or organization (Roseman 1991). This type of emotions is shown to foster support-seeking coping (Menon and Dubé 2007; Yi and Baumgartner 2004). In the context of service failures, this includes support-seeking nWOM (Stephens and Gwinner 1998) and problem-solving complaining (Grégoire and Fisher 2008) (see the continuous arrows in Fig. 1).

However, the dotted arrows in Fig. 1 show two unsolved issues. First, it has not been examined under which condition anger and frustration foster nWOM and complaining, respectively. We argue that helplessness plays a crucial role in this context. Helplessness is an emotion that tends to occur when people perceive low potential to cope with aversive situations (Lazarus 1991). Unlike anger and frustration, helplessness depends on a *prospective* rather than on a retrospective appraisal of control, which is an assessment of whether a problem can be *solved in the future* (Lazarus 1991). Hence, helplessness may determine whether

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Figure 1 Research contributions and conceptual model.



angry (frustrated) customers complain to the provider (which may initiate problem resolution) and/or engage in nWOM to others (which may not initiate problem resolution).

The second issue that has not been examined yet is the effect of providers' explanations on anger, frustration, and helplessness. We choose explanations because the informational support literature suggests that explanations help people to cope with a problem (Folkman et al. 1986; Schaefer et al. 1981). Moreover, explanations may entail retrospective and prospective information (Davidow 2003). Retrospective information (why a failure occurred) may mitigate retrospective emotions like anger and frustration. Prospective information (what is going to happen with the failure in the future) may mitigate prospective emotions like helplessness.

In filling these voids, we make three contributions to the literature. First, we examine the unique interactions of retrospective (anger, frustration) and prospective emotions (helplessness) to explain the likelihood of distinct coping responses to service failure. We clearly distinguish between anger and frustration, which are often confounded by marketing theorists (e.g., Laros and Steenkamp 2005). Second, we include explanations into this retrospective-prospective framework. The resulting comprehensive model allows organizations to assess what type of information is adequate to mitigate retrospective and prospective emotions and subsequent aversive reactions. Third, we test our model in a laboratory experiment and in a field study, which allows external and ecological validation of the results. Both studies are conducted in the hotel industry. Its service-dominant context requires customer-employee interactions (Lusch et al. 2007), which are necessary to examine the focal constructs.

Conceptual foundations

Appraisals for anger, frustration, and helplessness

Appraisal dimensions Appraisal theorists define emotions as mental states of readiness caused by the evaluation of

events on various appraisal dimensions (Lazarus 1991). The most basic dimension is goal congruency (Johnson and Stewart 2005). It determines the valence of an emotion by categorizing events as goal congruent or incongruent. Goal congruent events foster positive emotions and goal incongruent events foster negative emotions (Johnson and Stewart 2005). The specific kind of emotion then depends on further appraisal dimensions (Ortony et al. 1988). We focus on *blame attribution* (Roseman 1991) and *coping potential* (Lazarus 1991), which are responsible for the occurrence of anger, frustration, and helplessness. Both dimensions represent different time perspectives (Lazarus 1991) that allow us to integrate adjunct emotions into a retrospective-prospective framework (Fig. 1).

Blame attribution is a retrospective appraisal of responsibility for events (Roseman 1991; Stephens and Gwinner 1998). As such, it is a hindsight evaluation of given situations (Weiner 1985). Blame attribution is used by attribution theorists (e.g., Folkes 1984) and appraisal theorists (e.g., Roseman 1991) to explain emotions fostered by causal inferences. Conversely, *coping potential* is a prospective appraisal (Lazarus 1991). It refers to peoples' assessment of what if anything can be done to overcome an aversive situation in the future (Folkman et al. 1986). Coping potential affects helplessness (Lazarus 1991), whereas blame attribution affects anger and frustration (Roseman 1991).

Anger is a retrospective emotion, which tends to occur when people attribute a goal incongruent event to external sources (Averill 1983; Roseman 1991). Such an external attribution implies to blame someone else for an (aversive) situation (Weiner 1985). People may as well attribute aversive events to themselves (internal attribution), which, by contrast, fosters guilt (Weiner 1985). However, the hedonic bias drives people to ascribe failures to others rather than to themselves (Weiner 1985). Hence, anger (rather than guilt) is considered to be the most dominant affective reaction to service failures (Kalamas et al. 2008). Numerous empirical studies show that anger is a typical

response to an unsatisfactory consumption experience attributed to a company (e.g., Bougie et al. 2003; Maute and Dubé 1999).

Frustration, like anger, depends on blame attribution. It can be defined as a retrospective emotion, which tends to occur when people attribute a goal incongruent event to situational factors (Roseman 1991). Situational blame attribution means that people hold uncontrollable circumstances responsible for an aversive event (Smith and Ellsworth 1985). Service failures are often described as frustrating experiences (Laros and Steenkamp 2005; Nyer 2000) because they might occur because of events beyond anyone's control (e.g., service denial when a thunderstorm causes a power breakdown). Yet, marketing theorists hardly examine frustration because they often use the term as a synonym for anger (e.g., Laros and Steenkamp 2005; Richins 1997). This overlap is in line with some appraisal theorists who consider frustration to be a milder form of anger (Berkowitz and Harmon-Jones 2004). However, we follow Clore and Centerbar (2004) and Roseman (1991) and consider anger and frustration as distinct emotions because blaming someone else differs from blaming no particular person. Moreover, there is empirical evidence that external blame attribution increases anger and that situational blame attribution increases frustration (Smith and Ellsworth 1985).

Another argument in the psychological (Berkowitz and Harmon-Jones 2004; Clore and Centerbar 2004; Ortony et al. 1988; Weiner 2000) and marketing literature (Bougie et al. 2003; Nyer 1997) is whether anger and frustration belong to the same set of emotions (including dissatisfaction, displeasure, and resentment) that describe a general negative reaction to goal incongruency. However, we argue that anger and frustration differ from these other emotions in that they involve attribution of agency (Roseman 1991). Also, there is evidence of discriminant validity for anger and dissatisfaction (Bougie et al. 2003; Nyer 1997).

Helplessness is a prospective emotion, which tends to occur when people perceive a low potential to cope with a goal incongruent event (Lazarus 1991). Helpless people perceive that an aversive situation (e.g., a service failure) cannot be altered in the future (Folkman et al. 1986; Frijda 1987). Such perceived irrevocability implies that neither the people themselves nor someone else is able to remove an obstacle (Lazarus 1991). This appraisal resembles those for anger and frustration: it represents *lack of control*. However, anger and frustration are the result of a retrospective evaluation of who controlled for a situation. Helplessness is the result of a prospective evaluation of future options to control a situation.

There is an argument in the literature whether helplessness is an emotion, a cognition, or an action tendency (Frijda 1987; Roseman 1991). For two reasons, we define helplessness as an emotion. First, in her landmark study on emotional

experiences, Richins (1997) identifies helplessness as a consumption-related emotion. Second, from a nomological validity perspective, helplessness has the same types of antecedents (i.e., appraisals) and consequences (i.e., coping, see next section) as other emotions (Lazarus 1991).

Moreover, helplessness has to be differentiated from *learned helplessness*, which is an object of psychotherapeutic research and represents a generalized belief that certain outcomes occur, regardless of peoples' individual efforts to influence them (Seligman 1975). It involves a stable (constant over time) and global (generalizable to all kinds of life situations) perception of uncontrollability that fosters depression (Jerusalem 1993). Helplessness as an emotion, on the contrary, is a state triggered by a single, negative event.

Helplessness also has to be differentiated from *powerlessness*, which is defined as having control over others and powerlessness as being controlled by others (Rucker and Galinsky 2008). In addition to its unclear conceptualization as a trait (e.g., Keltner et al. 2003) or state (e.g., Rucker and Galinsky 2008), this definition differs from helplessness in two ways. First, powerlessness often *leads to* aversive perceptions because it implies dependence on others (Anderson and Galinsky 2006). Helplessness, on the contrary, tends to be *caused* by (irrevocable) aversive situations. For instance, a subordinate might feel powerless because his boss decides on his promotion (lack of control→powerlessness→aversive perception). He might feel helpless, when he has not been promoted and does not think that this situation can be altered (aversive situation, low coping potential→helplessness). Second, powerless people are (were) controlled by others in current (or past) situations (Rucker and Galinsky 2008). They are usually uncertain about how these others will act (and what will happen to them) in the future (Briñol et al. 2007). Helpless people, on the contrary, are *certain* in their appraisal that a situation will not change in the future.

Coping responses to anger, frustration, and helplessness

Coping responses are the cognitive and/or behavioral efforts of individuals to manage situations that tax or exceed their resources (Lazarus and Folkman 1984). Coping is often triggered by negative emotions because people seek to reduce their emotional distress and induce more favorable emotional states (Duhachek 2005; Lazarus 1991). Of the various coping responses, we consider *confrontative coping* and *support-seeking coping* as typical reactions to failure-induced anger and frustration, respectively (as shown below).

Confrontative coping

Confrontative coping refers to aggressively attacking another party (Folkman et al. 1986) to get him/her to

change his/her mind and to vent negative emotions (Yi and Baumgartner 2004). Psychological research shows that anger fosters confrontative coping: people reject or attack the other party because they identify him/her as responsible for an aversive situation (Frijda 1987). In the context of service failures, confrontative coping is often referred to as retaliatory behavior (Grégoire and Fisher 2008). Angry customers tend to engage in two types of retaliation: vindictive nWOM and vindictive complaining (Bonifield and Cole 2007; Bougie et al. 2003; Folkes et al. 1987).

Vindictive nWOM involves unfavorable communication with other customers that often aims to denigrate a company (Richins 1983) and/or to advise others not to use this company's services (Bougie et al. 2003). It can be understood as an aggressive type of "private response" in Singh's (1988) taxonomy of consumer complaint behavior. This taxonomy also comprises "third-party response" to external agencies, such as the Better Business Bureau. We focus on nWOM because it is particularly harmful: it produces negative attitudes among other consumers and prevents them from doing business with that specific company (Haywood 1989).

Vindictive complaining means that customers turn to the company and abuse its employees (Grégoire and Fisher 2008). Vindictive complaining is an aggressive type of "voice response" in Singh's (1988) taxonomy: it is a direct form of retaliation that aims to castigate an organization (Hibbard et al. 2001) and to force employees to change their minds (Yi and Baumgartner 2004).

Although both vindictive nWOM and vindictive complaining are aggressive responses to anger, we argue that the way customers seek to harm the organization differs substantially. Vindictive nWOM is *indirect*: customers try to castigate a company by private actions taken in their social environment (Singh and Pandya 1991; Wangenheim 2005). As the organization is not contacted, vindictive nWOM does not offer the chance for organizational actions toward service recovery. However, this chance is given through (vindictive) complaining: it is a *direct* and public act that requires customer–employee interactions (Grégoire and Fisher 2008; Singh and Pandya 1991). To sum up, complainants may think that the aversive situation can be changed, whereas customers engaging in nWOM may not. As helplessness involves appraisals on the changeability of situations, we argue that the likelihood of angry customers to engage in nWOM and complaining depends on the *helplessness level*.

In particular, angry customers who feel high levels of helplessness doubt their potential to remedy the service failure by themselves and/or to force the provider to do so. This is because helplessness implies that an aversive situation is perceived as irrevocable (Lazarus 1991; Weiner 1985). Yet, these customers may need to vent their anger

and to take revenge on the company because anger usually implies high levels of aggression, strain, and perceived unfairness (Bougie et al. 2003). A possibility to vent one's anger and to compensate for fairness violations is vindictive nWOM (Grégoire and Fisher 2008). Hence, we assume that angry customers who perceive high levels of helplessness tend to engage in vindictive nWOM.

By contrast, angry customers, who experience low levels of helplessness, perceive high coping potential and seek to take initiative to get the problem removed (Duhachek 2005). Hence, we assume that these customers are likely to aggressively complain to the organization. This may not only help to vent their anger (Nyer 2000) and to punish the firm (Grégoire and Fisher 2008) but also force the provider to give in, to make concessions, and to finally alter the situation (Yi and Baumgartner 2004). Hence, we assume the following:

- H1a: The positive effect of anger on vindictive nWOM is greater when customers feel high helplessness than when they feel low helplessness.
- H1b: The positive effect of anger on vindictive complaining is greater when customers feel low helplessness than when they feel high helplessness.

Support-seeking coping

Social support theory suggests that, when coping with stressful situations, people may rely not only on their own resources but also on resources from their social environment (Albrecht and Adelman 1984; Holahan et al. 1996). This process is called support-seeking coping (Duhachek 2005). The health-related literature describes social support as important for physical and mental well-being because they help in critical life situations (Schaefer et al. 1981). We argue that support-seeking coping is a typical reaction to frustrating service experiences. Although reactions to frustration are not explicitly examined in the marketing literature, there is indirect empirical evidence for its effect: several studies show that negative emotions that do not include external attribution (e.g., anxiety, worry) foster support-seeking coping (Frijda et al. 1989; Menon and Dubé 2007; Yi and Baumgartner 2004). This is because customers who do not blame the provider for a failure seek to get help to remedy the situation rather than to harm the provider (Menon and Dubé 2007). As frustration does not involve external attribution (Roseman 1991), we assume that it also fosters support-seeking coping. There are two types of support-seeking after a service failure: support-seeking nWOM (Yi and Baumgartner 2004) and problem-solving complaining (Grégoire and Fisher 2008).

Support-seeking nWOM means that customers talk to others in their environment about service failures and ask

for empathy and understanding (Yi and Baumgartner 2004; Stephens and Gwinner 1998). It primarily aims at emotional release through sharing one's distress (Singh 1988). The literature on coping describes this type of social support seeking as emotional support seeking (Duhachek 2005). In the case of *problem-solving complaining*, customers interact with the provider after a service failure to resolve their problem (Grégoire and Fisher 2008). Problem-solving complaining is constructive: the complainers try to analyze and fix the problem in a rational way (Folkes et al. 1987). The respective customers seek a type of social support that is described as instrumental support in the literature on coping: it aims at getting an aversive situation altered (Duhachek 2005; Folkman et al. 1986).

Although both support-seeking nWOM and problem-solving complaining seek to initiate external support, we argue that the respective addressees differ. Support-seeking nWOM is directed to others; problem-solving complainers turn to the provider in the hopes of gaining recompense (Singh 1988; Singh and Pandya 1991). Again, we argue that *helplessness* is responsible for the probability of the two coping responses occurring. Frustrated, helpless customers are likely to turn to people in their environment. This is because they think that nobody, including the service personnel, is able to remedy the situation (Lazarus 1991; Weiner 1985). Hence, they may at least seek sympathy and understanding from others to vent frustration. Prior research indeed shows that complaining to others drains distress (Nyer and Gopinath 2005). In contrast, frustrated customers who feel low helplessness tend to presume that a failure can be fixed. They perceive that the failure does not persist (Weiner 1985) and that they can initiate problem solution (Lazarus 1991). Hence, we assume that they are more likely than helpless customers to turn to providers and ask for problem solution. This yields:

- H2a: The positive effect of frustration on support-seeking nWOM is greater when customers feel high helplessness than when they feel low helplessness.
- H2b: The positive effect of frustration on problem-solving complaining is greater when customers feel low helplessness than when they feel high helplessness.

Informational support for service recovery

The service recovery literature focuses on the effectiveness of organizational responses to service failures. Drawing on justice theory, it is argued that recovery efforts (e.g., compensation, promptness) enhance fairness perceptions, post-complaint satisfaction, and favorable customer behavior (Davidow 2003; Smith et al. 1999). Recently, some authors stress that service recovery efforts should include social support strategies to mitigate negative emotions triggered by

service failure (Bonifield and Cole 2007, 2008; Menon and Dubé 2007). Whereas the effect of instrumental support (e.g., through compensation) and emotional support (e.g., through apology) is well-documented, another type is often neglected: informational support (Bonifield and Cole 2008; Mattila 2006).

In the social support literature, informational support means providing information and advice, which help to deal with a problem (Schaefer et al. 1981). It is shown to reduce stress because it encourages people to think that a problem is less significant than originally assumed (LaRocco et al. 1980). With respect to a service failure, organizations usually provide informational support by explaining failure occurrence (Morris 1988). Such explanations may comprise *retrospective* as well as *prospective* information (Mattila 2006).

A *retrospective explanation* contains causal information on why a failure occurred and why the organization could not avoid it (Davidow 2003; Mattila 2006). Prior research in organizational settings shows that a retrospective explanation is an effective impression management tool (Greenberg 1996). Moreover, it enhances fairness perceptions of employees in organizational conflicts (Shaw et al. 2003) as well as those of customers after service failure (Mattila 2006). One reason for this effect is that additional information may help people to reevaluate a problem as less severe (Davidow 2003). The literature on coping describes this process as positive reappraisal (Lazarus 1991) or appraisal-focused coping (Latack 1986). It eases the perceived severity of problems, thus reducing goal incongruity (Lazarus 1991).

In anger-inducing service encounters, a retrospective explanation may initiate positive reappraisal. Learning about the organization's view of failure occurrence helps customers to understand the employee's position (Davidow 2003; LaRocco et al. 1980). This kind of empathy is shown, for instance, to ease negative perceptions of conflicts in organizations (Rahim 2002). Hence, a retrospective explanation may help customers to reappraise the failure as less goal incongruent than previously assumed. As goal incongruity fosters anger (Roseman 1991), we expect that a retrospective explanation mitigates anger. We do not expect a retrospective explanation to reduce frustration because frustrated customers do not blame the organization (Roseman 1991). Neither do we expect an effect on helplessness because it is based on prospective appraisal (Lazarus 1991), which may not be affected by a retrospective explanation. In summary, we advance the following:

- H3a: A retrospective explanation decreases anger.

A *prospective explanation* refers to the company's information on future failure occurrence (Mattila 2006; Morris 1988). Customers usually want to learn what the organization will do to prevent the problem in the future (Johnston and

Fern 1999). However, future problems are often unavoidable (Greenberg 1996). In a hotel for instance, the air conditioning may be noisy, but a less noisy air-condition system is unavailable, or its installation is extremely expensive. Hence, we define prospective explanation as informing customers that a service failure will not be as severe as originally assumed (e.g., that one will get used to the noise).

We assume that a prospective explanation mitigates helplessness because it induces a reappraisal of the respective failure. As helpless customers do not see any possibility to alter the aversive situation (Lazarus 1991), they are likely to use the information provided by the company to reappraise the persistent problem. Such reappraisals may include positive and wishful thinking, such as trying to make the best of the situation (Duhachek 2005). Although reappraisal does not remove the problem itself, it is likely to reduce the goal incongruity of the aversive situation (Latack 1986). This is because customers are induced to accept the future situation as something they have to deal with. Acceptance, in turn, will assumingly prompt them to decrease the aspired goal of flawless future service (i.e., reduce goal incongruity). As helplessness is triggered by goal incongruity of a future event (Lazarus 1991), helplessness is likely to be reduced. We do not expect a prospective explanation to mitigate anger or frustration because these emotions are retrospective (Roseman 1991). Hence, we propose the following:

H4a: A prospective explanation decreases helplessness.

Study 1

Research method

Method and procedure

We conducted a laboratory experiment to test the effects of anger, frustration, and helplessness on coping responses (H1a,b, H2a,b) and of explanations on these emotions (H3a, H4a). For our experimental design, we followed Bonifield and Cole (2007, 2008) by manipulating appraisals and provider support in written scenarios. We exposed participants to scenarios that differed with respect to the cause (blame attribution) and irrevocability of a service failure (coping potential) and with respect to the informational support provided by the organization (explanations). We manipulated the underlying appraisals (rather than directly manipulating emotions) because appraisal theories stress that emotions are inevitably linked to appraisals (e.g., Lazarus 1991), which makes it impossible to solely manipulate emotions. Hence, we used appraisals as manipulation check measures and emotions as resulting variables.

This also enabled tests of H3a and H4a that use emotions as dependent variables.

We used a $2 \times 2 \times 3$ between-subjects design, crossing blame attribution (situational, external), coping potential (low, high), and explanation (retrospective, prospective, no explanation). Subjects were university students randomly assigned to one of the twelve scenarios, each containing three sections. Section 1 described a core service failure event while staying at a hotel in Berlin. It pictured a student on a 2-day sightseeing trip with his girlfriend during summer vacation. The student made an online reservation 2 weeks in advance. During the first night, a constant loud noise woke up the couple at 6 a.m.

In section 2, we manipulated blame attribution and coping potential by adding different information to the basic scenario. Blame attribution was manipulated by including information on the assumed cause of the noise. In the *situational attribution* scenario, the student found out that the noise was produced by the morning traffic on the main road in front of the hotel. In the *external attribution* scenario, the student established that the noise was produced by service employees preparing breakfast in the nearby kitchen. Coping potential was manipulated by describing the student as thinking about how to cope with the noise. When considering possible solutions, he remembered an episode when arriving at the hotel. The receptionist had talked to somebody on the phone who wanted to make a reservation for the next night. In the *low coping potential* condition, the receptionist had answered that the hotel was fully booked for the next night. In the *high coping potential* condition, he had stated that there were empty rooms for the next night. This information was intended to manipulate the perception that the couple possibly could (high coping potential) or could not (low coping potential) move to another room further from the noise for the next night.

Section 3 explained that the couple was unable to fall asleep again and passed the reception on their way to the breakfast room. The receptionist asked them if they had a pleasant night, and the student told him about the noise. We then manipulated explanation. In the *retrospective explanation* condition, the receptionist explained that, when taking online reservations, the hotel first occupies rooms not affected by the noise. When all the quiet rooms are occupied, the hotel starts renting out the other rooms. The receptionist said that the latter situation must have been the case when the student made his reservation. In the *prospective explanation* condition, the receptionist explained that the next morning would be calmer because it would be Sunday. A control condition (*no explanation*) was included describing the couple as simply going to the breakfast room. Having read through the scenarios, the subjects were asked to put themselves in

the student's position and to indicate manipulation checks, emotions, coping responses, and demographics.

Participants and measures

Participants and scales The participants were 311 undergraduate students attending a marketing course at a German university who completed the questionnaire in class. Of the participants, 130 were male, and 181 were female. The average age was 21 years with 93% being between 18 years and 24 years old. All constructs were measured on multiple seven-point Likert-type scales ranging from 1 = "not at all" to 7 = "strongly" (emotions) and from 1 = "strongly disagree" to 7 = "strongly agree" (all other measures). Scales were adapted from previous studies or developed for this study, including pretests (see "Appendix"). All items were translated into German using double-back translation (Brislin 1980).

Manipulation check measures These included the appraisals of blame attribution, coping potential, and explanations. External attribution was derived from the two-item scale by Folkes et al. (1987) with an additional item ($\alpha=.95$). The two items measuring situational attribution were based on the situational control scale ($\alpha=.90$) by Smith and Ellsworth (1985). To measure coping potential, we adapted the single-item scale of Frijda (1987) and added one more item ($\alpha=.88$). We developed two items each to measure retrospective explanation (e.g., "The hotel employee explained why the situation occurred"; $\alpha=.89$) and prospective explanation (e.g., "The hotel employee explained that the problem would be less severe the next morning"; $\alpha=.93$). We included dissatisfaction as a possible confound.¹ Finally, we asked the participants how realistic they found the scenario to assess ecological validity.

Measures for emotions and coping responses We measured both anger (e.g., "I would feel angry with the hotel") (Bonifield and Cole 2007; Yi and Baumgartner 2004) ($\alpha=.94$) and frustration with three items (e.g., "I would feel frustrated about the situation") ($\alpha=.93$). The measure for helplessness was borrowed from Richins' (1997) expanded CES scale, and three more indicators were added ($\alpha=.96$). To measure vindictive nWOM, vindictive complaining, and problem-solving complaining, we adapted three-item scales suggested by Grégoire and Fisher (2008). Vindictive nWOM included items like "I would talk to other people about my negative experience to denigrate the hotel to others" ($\alpha=.90$). Vindictive complaining was measured by

items like "I would complain to the hotel to give the representative(s) a hard time" ($\alpha=.92$). Problem-solving complaining included items like "I would complain to the hotel to discuss the problem constructively" (Coefficient alpha=.94). To measure support-seeking nWOM, we adapted the four-item scale of Duhachek (2005) ($\alpha=.95$). A sample item is "I would talk to other people about my negative experience in order to get some comfort".

Measures for control variables Age, gender, and experience of hotel trips (1 = "not experienced, and 7 = "very experienced") were chosen as control variables. Of the participants, 77.2% indicated scores higher than 4 for experience ($M=5.23$). We also included two major antecedents to nWOM and complaining: dissatisfaction as a situation-specific variable (Bougie et al. 2003; Wangenheim 2005) and self-confidence as a customer-specific variable (Bearden and Teel 1980). Dissatisfaction was captured by two items adapted from Homburg et al. (2005) ($\alpha=.93$). A four-item short version of Rosenberg's (1965) self-esteem scale measured self-confidence (e.g., "I feel that I have a number of good qualities") ($\alpha=.92$).

Manipulation checks, confound checks, and emotion elicitation

Manipulation checks and confound checks We used ANOVAs to test whether the experimental factors varied as intended. Subjects in the situational attribution condition reported significantly higher scores on the situational control scale ($M=5.48$) than in the external attribution condition ($M=2.33$; $F(1, 311)=478.58, p<.001$). Conversely, the external blame score was significantly higher in the external attribution condition ($M=5.52$) than in the situational attribution condition ($M=2.67$; $F(1, 311)=445.45, p<.001$). The coping-potential score was significantly lower in the low coping-potential condition ($M=3.98$) than in the high coping-potential condition ($M=5.43$; $F(1, 311)=65.48, p<.001$).

The retrospective explanation score was significantly higher in the retrospective explanation condition ($M=4.87$) than in the no-explanation condition ($M=1.72$) and in the prospective explanation condition ($M=1.97$; $F(2, 311)=188.05, p<.001$).² Similarly, the subjects in the prospective explanation condition indicated significantly higher prospective explanation scores ($M=6.22$) than the subjects in the no-explanation condition ($M=1.45$) and in the

¹ As dissatisfaction also served as a control variable, its scale is reported in the control variables section.

² Post-hoc comparisons indicated that the retrospective explanation scores did not vary significantly across the latter two conditions ($p<.167$). Hence, the two conditions were merged into a no-retrospective explanation group for subsequent hypothesis testing.

retrospective explanation condition ($M=1.42$; $F(2, 311)=994.44$, $p<.001$).³ In all ANOVAs, the interactions between the three manipulations on the manipulation check measures were nonsignificant. Hence, the three manipulations displayed discriminant validity (Perdue and Summers 1986). The participants found the scenarios to be realistic across all conditions ($M=5.72$; $F(11, 311)=.86$, $p<.583$). Confound checks were conducted to test whether the manipulations did not unintentionally manipulate dissatisfaction levels. An ANOVA showed that dissatisfaction ($M=5.65$; $F(11, 311)=1.05$, $p<.404$) did not vary across conditions. Hence, the manipulations were successful.

Elicitation of emotions To test whether appraisals foster emotions, we conducted univariate ANOVAs. In the first ANOVA, attribution was entered as the independent variable and anger as the dependent variable. As assumed, the anger level was significantly higher in the external blame attribution condition ($M=5.00$) than in the situational blame attribution condition ($M=3.81$; $F(1, 311)=43.41$, $p<.001$). Using frustration as the dependent variable showed that the frustration level was significantly higher in the situational blame attribution condition ($M=5.85$) than in the external blame attribution condition ($M=4.77$; $F(1, 311)=38.70$, $p<.001$). Finally, an ANOVA with coping potential as the independent variable and helplessness as the dependent variable showed that the subjects in the low coping-potential situation experienced significantly greater helplessness ($M=4.88$) than the subjects in the high coping-potential condition ($M=2.70$; $F(1, 311)=149.97$, $p<.001$). As appraisals affected emotions as assumed, the emotions rather than the appraisal manipulations were used as model variables (see Hess et al. 2003 and Smith et al. 1999 for a similar approach).

Analysis

To test our hypotheses, we used the partial least squares approach (PLS) to structural equation modeling (SEM). This approach was favored over single regression analyses because it allows testing the conceptual model as a whole. Moreover, PLS tests interactions more effectively than regression analysis because it does not inflate measurement error in multiplicative terms (Chin et al. 2003). Following Chin et al. (2003), we calculated multiplicative terms by multiplying the indicators of anger (frustration) with the indicators of helplessness. Prior to multiplication, all indicators were mean-centered to avoid multicollinearity.

³ Post-hoc comparisons indicated that the prospective explanation scores did not vary significantly in the latter two conditions ($p<.799$). Again, we merged the two conditions into one group (no prospective explanation).

As PLS does not allow for statistical inference tests of significance for the path coefficients, we performed a bootstrapping procedure with 1,000 subsamples each (Chin 1998).

Results

Measurement validation

The measurement model is assessed in terms of reliability and convergent and discriminant validity. Item reliability is indicated by the loading of measures on their corresponding construct and by the composite reliability scores (Werts et al. 1974). All factor loadings are significant at the .001 level, and factor loadings as well as composite reliabilities are greater than .7 (see “Appendix”). Convergent and discriminant validity is given when factor loadings are higher than cross-loadings and when the square root of each construct’s average variance extracted (AVE) exceeds its correlations with all other constructs (Chin 1998). In our measurement model, convergent and discriminant validity is given (see Table 1 for the cross-correlations and square roots of AVEs).⁴

Structural model and test of hypotheses

Model test Table 2 shows the standardized path coefficients and t-values. Following Chin et al. (2003), we compare a model that does not include interaction terms (baseline model) with a model that includes such terms (theoretical model). Adding interactions increases the variances explained as indicated by the moderate effect sizes for vindictive nWOM ($f^2=.09$), vindictive complaining ($f^2=.29$), support-seeking nWOM ($f^2=.09$), and problem-solving complaining ($f^2=.14$). Hence, we report the results of the theoretical model test.

Overall, the results support our model (see italic characters in Table 2 for test of hypotheses). There are significant interactions between anger and helplessness on vindictive nWOM (path coefficient=.261; $t=5.41$, $p<.001$) and on vindictive complaining (path coefficient=-.504; $t=-11.98$, $p<.001$) as assumed in H1a and H1b. Consistent with H2a and H2b, there are significant interactions between frustration and helplessness on support-seeking nWOM (path coefficient=.274; $t=5.70$, $p<.001$) and on problem-solving complaining (path coefficient=-.342;

⁴ To provide the most conservative assessment of the measurement model, we conducted a CFA including model variables, manipulation check measures, and control variables. Using AMOS 16.0 and maximum likelihood estimation, the CFA provides a satisfactory data fit ($\chi^2 [771]=1,307$, $p=.000$, TLI=.94, CFI = .95, RMSEA=.05), convergent validity (significant factor loadings at the .05 level, composite reliabilities>.7), and discriminant validity according to the Fornell-Larcker criterion (Fornell and Larcker 1981).

Table 1 Descriptive statistics and correlation matrix for model variables in study 1

Construct scale (CR)	Descriptives		Correlations									
	M	SD	1	2	3	4	5	6	7	8	9	
1. Retrospective explanation (-)	–	–	1.00									
2. Prospective explanation (-)	–	–	-.49***	1.00								
3. Anger (.96)	4.41	1.70	-.44***	.23***	.95							
4. Frustration (.95)	5.30	1.62	.04	.02	.05	.94						
5. Helplessness (.97)	3.80	1.91	.00	-.42***	-.06	.06	.94					
6. Vindictive nWOM (.94)	4.47	1.69	-.05	.06	.46***	.03	.07	.92				
7. Vindictive complaining (.95)	2.99	1.46	-.10	.21***	.39***	.06	-.10	.26***	.93			
8. Support-seeking nWOM (.96)	4.17	1.56	.02	.05	.03	.38***	.11	.08	.05	.93		
9. Problem-solving complaining (.96)	5.01	1.59	.00	.00	.06	.40***	-.04	.05	.10	.10	.94	

Most scales range from 1 (low values) to 7 (high values of the respective variable). Only retrospective and prospective explanation are dummy variables (0 = no retrospective/prospective explanation, 1 = retrospective/prospective explanation). The AVEs' (average variance extracted) square roots are presented in bold characters

CR construct reliability

* $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test)

Table 2 PLS results in study 1

Relationship (Effect size f^2)	Baseline model		Theoretical model	
	Path coefficient	(t-value)	Path coefficient	(t-value)
Vindictive nWOM ($f^2 = .09$)	$R^2 = .22$		$R^2 = .29$	
Anger → vindictive nWOM	.465	(9.18)***	.447	(9.62)***
Helplessness → vindictive nWOM	.103	(2.03)*	.087	(1.84)
<i>H1a: anger x helplessness → vindictive nWOM</i>	–		.261	(5.41)***
Vindictive complaining ($f^2 = .29$)	$R^2 = .16$		$R^2 = .41$	
Anger → vindictive complaining	.386	(8.39)***	.417	(11.08)***
Helplessness → vindictive complaining	-.081	(-1.44)	-.051	(-1.12)
<i>H1b: anger x helplessness → vindictive complaining</i>	–		-.504	(-11.98)***
Support-seeking nWOM ($f^2 = .09$)	$R^2 = .15$		$R^2 = .23$	
Frustration → support-seeking nWOM	.379	(6.89)***	.382	(7.38)***
Helplessness → support-seeking nWOM	.084	(1.60)	-.071	(-1.36)
<i>H2a: frustration x helplessness → support-seeking nWOM</i>	–		.274	(5.70)***
Problem-solving complaining ($f^2 = .14$)	$R^2 = .16$		$R^2 = .28$	
Frustration → problem-solving complaining	.402	(8.22)***	.396	(7.54)***
Helplessness → problem-solving complaining	-.059	(-1.01)	-.041	(-.78)
<i>H2b: frustration x helplessness → problem-solving complaining</i>	–		-.342	(-6.55)***
Anger	$R^2 = .19$		$R^2 = .19$	
<i>H3a: retrospective explanation → anger</i>	-.440	(-8.89)***	-.440	(-8.79)***
Helplessness	$R^2 = .17$		$R^2 = .17$	
<i>H4a: prospective explanation → helplessness</i>	-.417	(-9.31)***	-.417	(-7.54)***

Effect size (f^2) is calculated by dividing the construct's change in R^2 by its residual variance in the baseline model (Chin et al. 2003). Retrospective and prospective explanations are dummy variables (0 = no-retrospective/prospective explanation, 1 = retrospective/prospective explanation)

* $t = 1.99$, $p < .05$; ** $t = 2.63$, $p < .01$; *** $t = 3.39$, $p < .001$ (two-tailed)

$t=-6.55, p<.001$). Helplessness alone does not affect the coping responses as indicated by insignificant path coefficients. Moreover, a retrospective explanation reduces anger (path coefficient $=-.440; t=-8.79, p<.001$), whereas a prospective explanation reduces helplessness (path coefficient $=-.417; t=-7.54, p<.001$). This supports H3a and H4a.

Nature of the interaction To understand the nature of the interaction, we split the moderator (helplessness) at its median ($M=3.75$). As suggested by Chin (2000), we compare the two subgroups using a t -test based on the pooled standard errors obtained via bootstrap resamplings with 1,000 replicates. The t -tests support that the path coefficients from anger to vindictive nWOM (path coefficient $=.68$ vs. $.24; t(309)=-7.23, p<.001$) and from frustration to support-seeking nWOM (path coefficient $=.63$ vs. $.12; t(309)=-6.82, p<.001$) are significantly greater in the high helplessness subsample ($n=154$) than in the low helplessness subsample ($n=157$). The effect is vice versa for the paths from anger to vindictive complaining (path coefficient $=.11$ vs. $.72; t(309)=6.60, p<.001$) and from frustration to problem-solving complaining (path coefficient $=.13$ vs. $.64; t(309)=7.34, p<.001$). These results support the directions of H1a, H1b, H2a, and H2b.

Control variables Including the control variables into our theoretical model yields positive significant effects of dissatisfaction on vindictive nWOM (path coefficient $=.156; t=2.73, p<.01$) and on vindictive complaining (path coefficient $=.123; t=2.86, p<.01$). Self-confidence fosters vindictive complaining (path coefficient $=.09; t=2.09, p<.05$) and problem-solving complaining (path coefficient $=.228; t=4.09, p<.001$). Experience of hotel trips increases vindictive nWOM (path coefficient $=.103; t=2.02, p<.05$). Finally, females are more likely than males to engage in support-seeking nWOM (path coefficient $=.142; t=2.69, p<.01$) and in problem-solving complaining (path coefficient $=.135; t=3.03, p<.01$). Age does not exert significant effects on either of the coping responses.

Discussion

Study 1 supports that helplessness is a pure moderator on the relationship between anger and confrontative coping as well as between frustration and support-seeking coping. High helplessness levels *increase* the positive effect of anger (frustration) on vindictive nWOM (support-seeking nWOM) and *decrease* the positive effect of anger (frustration) on vindictive complaining (problem-solving complaining). These effects are stronger than those of

dissatisfaction and self-confidence. Hence, anger, frustration, and helplessness better explain multifaceted coping responses to a service failure than major antecedents of nWOM and complaining identified in prior research. The results also indicate that a retrospective explanation mitigates anger and that a prospective explanation reduces helplessness.

Although study 1 supports our model, it has three limitations requiring a second study. First, it is a laboratory experiment, in which projective rather than actual emotions and behaviors are measured, which restricts ecological validity. Also, retrospective explanation is manipulated in a way that the hotel employees are aware of potential problems and apply a method of room assignment to prevent service failure. Some service organizations may not use such proactive behavior, which alleviates the credibility of postfailure explanations (Worsfold et al. 2007). Second, students have smaller financial budgets than other customers, thus being less demanding with respect to service quality. This restricts external validity and generalizability to other populations. Third, our single-cue study leaves out compensation, which is often considered to be the most effective recovery effort (Davidow 2003).

Study 2

Background and hypotheses

The objective of study 2 is twofold. First, we seek to establish ecological and external validity for the findings of study 1. For this purpose, we use a survey approach and a sample of the general population (Chebat and Slusarczyk 2005). The second objective is to better assess the predictive power of explanations for negative emotions when competing with compensation. Compensation is a special kind of instrumental support, which means providing direct aid to solve the problem (Menon and Dubé 2007). Compensation may comprise failure reparation (replacing or repairing a product, fixing a problem) as well as monetary redress (refunds, payment of additional expenses caused by the companies) (Kelley et al. 1993). Including compensation yields more realistic and practical managerial implications because customers usually expect recompense for service failures (Smith et al. 1999). Moreover, prior research shows that compensation is the most salient recovery effort because it reinforces distributive fairness (i.e., perception of an adequate outcome of an exchange), which is most important for service recovery (Davidow 2003; Smith et al. 1999).

Drawing on the fair process effect, we assume that explanations interact with compensation in their mitigating effect on anger and helplessness, respectively. The fair

process effect suggests that customers tend to tolerate poor outcomes after a service failure (i.e., no compensation) when the process of service recovery is perceived as fair (Collie et al. 2002). This is because the negative effect of low compensation may be offset by a fair and favorable exchange process (Worsfold et al. 2007). Explanations refer to the process of failure treatment (Mattila 2006) and are shown to reinforce procedural fairness in a meta-analytic review (Shaw et al. 2003). Hence, we expect that retrospective (prospective) explanation exerts a particularly strong mitigating effect on anger (helplessness) when no compensation is provided. For example, angry (helpless) airline passengers may settle for an explanation that departure is delayed because the airport employees still need to deice the airplane's wings (and that the process will not take very long anymore). Hence, we assume the following:

- H3b: The negative effect of a retrospective explanation on anger is greater when customers receive no compensation than when they receive compensation.
- H4b: The negative effect of a prospective explanation on helplessness is greater when customers receive no compensation than when they receive compensation.

Data collection, measures, and analysis

Data collection Study 2 was a field survey of German hotel guests. To obtain a representative sample, we combined snowballing technique and quota sampling. Business students of a German university were asked for course credit to administer the questionnaire to two people who had to be able to report on a service failure at a hotel and to meet age and sex quotas. The quotas were taken from a representative consumer study of Axel Springer Publishing House including information on consumer behavior, leisure time activities, and demographics of 30,388 Germans (Springer 2008). We selected adults who indicated that they had gone on a holiday trip within the last year. From this population, we calculated the following quotas: ≤ 39 years, male=14.5%, 40–59 years, male=21.0%, ≥ 60 years, male=14.0%, ≤ 39 years, female=15.0%, 40–59 years, female=21.0%, ≥ 60 years, female=14.5%.

To collect service-failure experiences, we used retrospective experience sampling, which is often used as a basis for measuring negative emotions (e.g., Bougie et al. 2003). The subjects were asked to describe a negative episode at a hotel. To eliminate experiences that did not refer to service failures (e.g., sickness), two independent coders organized all incidents into failure and nonfailure episodes. The intercoder reliability I_r was .91, thus exceeding the .80 benchmark (Perreault and Leigh 1989). Disagreements were discussed until both coders agreed. Eliminating nonfailure episodes yielded a sample of 525 respondents.

After describing their negative experience, the subjects indicated provider support strategies (retrospective explanation, prospective explanation, and compensation), emotions (anger, frustration, and helplessness), and coping responses (vindictive nWOM, vindictive complaining, support-seeking nWOM, and problem-solving complaining). We included the same control variables as in study 1 (dissatisfaction and self-confidence). Moreover, we included apology (expressing regret for a failure) as a type of emotional support that is often used by organizations to obtain service recovery (Davidow 2003). Additional control variables were demographics (age, sex, and level of education) and experience of hotel trips (see “Appendix”).

Measures and analysis We used the same measures as in study 1 with minor alterations to adapt them to a retrospective experience. In addition, apology (“The hotel employee(s) apologized to me”) and compensation (“The hotel employee(s) offered me compensation”) were measured by single items on seven-point Likert-type scales (1 = “strongly disagree” and 7 = “strongly agree”). Education level was captured by high school, college, and none of these. All scales indicated a satisfactory internal consistency ($\alpha > .07$). We then used the same PLS approach as in study 1. To test H3b and H4b, we calculated interaction terms (retrospective explanation \times compensation, prospective explanation \times compensation).

Results

Measurement validation Employing PLS and bootstrapping procedure, all factor loadings are significant at the .001 level, and factor loadings as well composite reliabilities are greater than .7 (see “Appendix”). All factor loadings exceed cross-loading, and Table 3 indicates that the square roots of AVEs are greater than cross-correlations. Hence, we find support of convergent and discriminant validity.⁵

Structural model and test of hypotheses Table 4 displays the results for the baseline model and for the theoretical model. Because including the interaction terms mostly yields moderate effect sizes (f^2) for coping responses (vindictive nWOM: .07, vindictive complaining: .11, support-seeking nWOM: .14, and problem-solving com-

⁵ Like in study 1, a comprehensive CFA including model variables and control variables was conducted to provide the most conservative model assessment. Results indicate an adequate data fit ($\chi^2 [594] = 843$, $p = .000$, TLI = .98, CFI = .99, RMSEA = .03), convergent validity (significant factor loadings at the .05 level, composite reliabilities $> .7$), and discriminant validity according to the Fornell-Larcker criterion.

Table 3 Descriptive statistics and correlation matrix for model variables in study 2

Construct scales (CR)	Descriptives	Correlations												
		M	SD	1	2	3	4	5	6	7	8	9	10	
1. Compensation (1.00)	2.58	2.28	1.00											
2. Retrospective explanation (.98)	2.65	1.91	.21	.98										
3. Prospective explanation (.98)	3.42	2.03	.05	.22***	.98									
4. Anger (.94)	4.51	1.80	-.36***	-.48***	-.07	.92								
5. Frustration (.95)	5.38	1.56	-.15***	-.04	-.05	.07	.93							
5. Helplessness (.95)	3.41	1.76	-.18***	-.07	-.36***	.24***	.26***	.83						
7. Vindictive nWOM (.96)	3.84	1.88	-.17***	-.23***	-.11*	.40***	-.06	.07	.94					
8. Vindictive complaining (.97)	2.56	1.45	-.05	-.13**	.04	.41***	.02	.05	.20***	.95				
9. Support-seeking nWOM (.97)	4.46	1.74	-.02	-.02	-.05	-.04	.36***	.08	-.07	-.08	.94			
10. Problem-solving complaining (.97)	4.92	1.51	-.03	.09*	.07	-.04	.60***	.05	-.10*	.00	.17***	.95		

Scales range from 1 (low values) to 7 (high values of the respective variable). The AVEs' (average variance extracted) square roots are presented in bold characters

CR composite reliability

* $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test)

plaining: .21) and emotions (anger: .26, and helplessness: .02), we report on the theoretical model test. Overall, study 1 findings (including H1a, H1b, H2a, H2b, H3a, and H4a) are supported (see italic characters in Table 4 for hypotheses testing). There are significant interactions between anger and helplessness on vindictive nWOM (path coefficient = .245; $t = 7.73$, $p < .001$) and on vindictive complaining (path coefficient = -.305; $t = -8.55$, $p < .001$) as well as between frustration and helplessness on support-seeking nWOM (path coefficient = .355; $t = 9.03$, $p < .001$) and on problem-solving complaining (path coefficient = -.391; $t = -12.98$, $p < .001$). Helplessness has no noticeable effect. A retrospective explanation reduces anger (path coefficient = -.442; $t = -13.09$, $p < .001$). A prospective explanation reduces helplessness (path coefficient = -.309; $t = 7.72$, $p < .001$).

Consistent with H3b, the interaction between retrospective explanation and compensation on anger is positive and significant (path coefficient = .316; $t = 8.84$, $p < .001$). Consistent with H4b, we find a positive and significant interaction between prospective explanation and compensation on helplessness (path coefficient = .214; $t = 5.13$, $p < .001$).

Nature of the interaction As in study 1, multigroup comparisons and t-tests are used to understand the nature of the interactions. Again, we formed a low helplessness group ($n = 270$) and a high helplessness group ($n = 255$) using a median split (cut value = 3.32). The t-tests support that the absolute values of the path coefficients from anger to vindictive nWOM (path coefficient = .55 vs. .21; $t(523) = -4.26$, $p < .001$) and from frustration to support-seeking

nWOM (path coefficient = .60 vs. .25; $t(523) = -1.44$, $p < .075$) are significantly greater in the high-helplessness subsample than in the low-helplessness subsample. Yet, the latter effect is only marginally significant. The effect is vice versa for the paths from anger to vindictive complaining (path coefficient = .19 vs. .62; $t(523) = 5.85$, $p < .001$) and from frustration to problem-solving complaining (path coefficient = .10 vs. .81; $t(523) = 4.81$, $p < .001$). These results support the directions of H1a, H1b, H2a, and H2b.

With respect to compensation, we formed a no-compensation group ($n = 317$) and a compensation group ($n = 208$). The t-tests show that the absolute values of the path coefficients from retrospective explanation to anger (path coefficient = -.70 vs. -.10; $t(523) = -8.24$, $p < .001$) and from prospective explanation to helplessness (path coefficient = -.48 vs. -.06; $t(523) = -4.18$, $p < .001$) are significantly greater in the no-compensation subsample than in the compensation subsample. These results support the directions of H3b and H4b.

Control variables Including the control variables for the coping responses yields significant effects of dissatisfaction on vindictive nWOM (path coefficient = .12; $t = 2.60$, $p < .05$) and on problem-solving complaining (path coefficient = -.10; $t = -3.25$, $p < .01$). Moreover, there is a significant effect of age on support-seeking nWOM (path coefficient = -.10; $t = -2.55$, $p < .05$). Self-confidence, experience of hotel trips, sex, and education level do not exert significant effects on any coping response. Including apology as a control variable shows significant effects on anger (path coefficient = -.18; $t = 4.38$, $p < .001$) and frustration (path coefficient = -.16; $t = -3.58$, $p < .001$).

Table 4 PLS results in study 2

Relationship (Effect size f^2)	Baseline model		Theoretical model	
	Path coefficient	(t-value)	Path coefficient	(t-value)
Vindictive nWOM ($f^2=.07$)	$R^2=.16$		$R^2=.22$	
Anger→vindictive nWOM	.408	(10.26) ^{***}	.383	(10.24) ^{***}
Helplessness→vindictive nWOM	.036	(.86)	.086	(1.70)
<i>H1a: anger x helplessness→vindictive nWOM</i>	–		.245	(7.73) ^{***}
Vindictive complaining ($f^2=.11$)	$R^2=.17$		$R^2=.26$	
Anger→vindictive complaining	.422	(10.65) ^{***}	.452	(12.08) ^{***}
Helplessness→vindictive complaining	–.052	(–1.25)	–.012	(–.32)
<i>H1b: anger x helplessness→vindictive complaining</i>	–		–.305	(–8.55) ^{***}
Support-seeking nWOM ($f^2=.14$)	$R^2=.13$		$R^2=.25$	
Frustration→support-seeking nWOM	.363	(6.35) ^{***}	.386	(9.72) ^{***}
Helplessness→support-seeking nWOM	.007	(1.14)	.073	(1.77)
<i>H2a: frustration x helplessness→support-seeking nWOM</i>	–		.355	(9.03) ^{***}
Problem-solving complaining ($f^2=.21$)	$R^2=.38$		$R^2=.51$	
Frustration→problem-solving complaining	.669	(14.80) ^{***}	.500	(15.70) ^{***}
Helplessness→problem-solving complaining	–.122	(–2.58) [*]	–.034	(–.90)
<i>H2b: frustration x helplessness→problem-solving complaining</i>	–		–.391	(–12.98) ^{***}
Anger ($f^2=.26$)	$R^2=.19$		$R^2=.40$	
<i>H3a: retrospective explanation→anger</i>	–.428	(–11.24) ^{***}	–.442	(–13.09) ^{***}
Compensation→anger	–.267		–.333	(–8.65) ^{***}
<i>H3b: retrospective explanation x compensation→anger</i>	–		.316	(8.84) ^{***}
Helplessness ($f^2=.02$)	$R^2=.17$		$R^2=.19$	
<i>H4a: prospective explanation→helplessness</i>	–.319	(–6.41) ^{***}	–.309	(–7.72) ^{***}
Compensation→helplessness	–.168		–.183	(–4.92) ^{***}
<i>H4b: prospective explanation x compensation→helplessness</i>	–		.214	(5.13) ^{***}

Effect size (f^2) is calculated by dividing the construct’s change in R^2 by its residual variance in the baseline model (Chin et al. 2003)

^{*} $t=1.99, p<.05$, ^{**} $t=2.63, p<.01$, ^{***} $t=3.39, p<.001$ (two-tailed)

General discussion

Research issues

Both studies support that anger and frustration are distinct emotions enhancing idiosyncratic coping responses to service failure. Anger fosters confrontative coping (vindictive nWOM, vindictive complaining), whereas frustration fosters support-seeking coping (support-seeking nWOM, problem-solving complaining). In addition, and most importantly, our retrospective-prospective framework enhances the knowledge on service failures in two ways. First, we shed light on the crucial role of a prospective emotion (helplessness) in explaining why retrospective emotions (anger and frustration) reinforce nWOM and complaining. Second, we show that retrospective and prospective explanations mitigate negative emotions through providing informational support.

The crucial role of helplessness Helplessness moderates the relationship between anger and confrontative coping.

Vindictive nWOM is reinforced by high levels of helplessness because angry customers who feel helpless perceive little if any potential for coping with the anger-inducing service failure. To vent their anger, these customers tend to denigrate the allegedly blameworthy organization to others. As soon as angry customers are not helpless, they are likely to turn to the provider and express their anger aggressively in the hopes of gaining recompense. Yet, consistent with Grégoire and Fisher (2008), the mean scores of vindictive complaining are rather low, indicating that it is not the primary coping response to anger. Obviously, customers tend to refrain from directly abusing and attacking service employees.

In a similar vein to angry customers, frustrated customers who feel helpless tend to engage in support-seeking nWOM because this is a way of obtaining emotional release in aversive, assumingly unchangeable situations. Conversely, frustrated customers perceiving low levels of helplessness tend to engage in problem-solving complaining because they think that this strategy will alter the

aversive situation. They turn to the organization to jointly discuss the problem and to find a solution acceptable for both parties.

The moderating effect of helplessness occurs even when other influencing variables, such as dissatisfaction or self-confidence, are controlled for. Hence, the unique interactions between anger, frustration, and helplessness differentiate better than these variables between the varied coping responses to service failure. Hereby, helplessness is a pure moderator, which means that this emotion alone does not affect the examined coping responses. This result is consistent with the appraisal theories suggesting that helplessness alone is related to lethargy and inactivity (Frijda 1987; Shaver 1985). However, in conjunction with anger (frustration), it induces customers to engage in vindictive nWOM (support-seeking nWOM).

Explanations as informational support Our research shows that a retrospective explanation decreases anger. Explaining why a failure occurred helps customers to take the position of the blamed organization and possibly consider the service failure to be less severe than originally assumed. Consistent with the fair process effect (Collie et al. 2002), this mainly holds true when no compensation is provided. Hence, an explanation is no second-best solution but an adequate substitute for compensation in significantly reducing anger levels.

In a similar vein, a prospective explanation is an appropriate support strategy for helplessness. This is because explaining that future failure occurrence will be less severe helps customers to accept a situation and to accommodate to the circumstances. There is also an interaction between prospective explanation and compensation: prospective explanation mitigates helplessness when compensation is absent. Hence, prospective explanation is an adequate substitute for compensation in reducing helplessness.

Correlations between constructs Although not particularly hypothesized, study 2 yields significant correlations of helplessness with anger (.24) and frustration (.26). As these correlations do not appear in study 1 (where appraisals were manipulated independently), we assume that angry/frustrated customers may tend to perceive low coping potential after real-life service failures. Another significant correlation appears between vindictive nWOM and vindictive complaining both in study 1 (.26) and in study 2 (.20). This may be due to the same underlying motivation to harm the organization. The two support-seeking coping responses are not correlated, which may be due to different motivations: problem-solving complaining aims to get the problem removed (Grégoire and Fisher 2008), whereas support-

seeking nWOM aims to vent negative affect (Stephens and Gwinner 1998).

Managerial implications

Our findings yield recommendations for service organizations in search of an alternative to instrumental support (i.e., compensation) as a response to service failure. Although compensation is often considered to be the most powerful service recovery effort (Davidow 2003), financial redress is costly, and/or immediate failure reparation might not be feasible. In such cases, organizations should provide informational support in the form of explanations, which is an adequate substitute for compensation in decreasing anger and helplessness. Moreover, it does not require monetary expenditure (Chebat and Slusarczyk 2005).

To mitigate anger and subsequent confrontative coping responses, organizations should use retrospective explanation. Service employees should explain what actions they took to prevent service failure. Such information helps customers to put themselves in the position of the organization, to understand why service failed, and to lower moral condemnation against the blameworthy organization (Weiner 2000). Hence, anger and subsequent retaliation are decreased. However, explaining why a failure occurred should not aim at negating responsibility, that is, blaming a third party or even the customer (Davidow 2003).

Explanation is also an alternative to compensation in decreasing helplessness. Decreasing helplessness is important because helplessness reinforces the likelihood that angry/frustrated customers engage in nWOM. nWOM is particularly harmful to organizations because it occurs beyond the organizations' control and spreads negative information among consumers (Richins 1983). To reduce helplessness, service employees should explain that the problem will be less severe in the future. This may help customers to accommodate to the failure and to reappraise it as less negative, which mitigates helplessness. However, prospective explanation should only be used when organizations are truly unable to fix the problem in the (near) future or to provide adequate financial redress. Otherwise, customers may infer that organizations use the explanation as an excuse for their unwillingness to deal with the problem.

Another precondition for adequate informational support is that organizations recognize failures and the subsequent anger and helplessness. For this purpose, employees should foster rapport with customers. Such proactive (organization-initiated) behavior is more effective than reactive (customer-initiated) recovery efforts (Worsfold et al. 2007). In particular, employees should turn to their

customers and ask them whether they are satisfied with the service. If customers perceive a failure, employees should ask for a detailed report. Questions on the perceived cause of the failure (e.g., “Where did the noise come from?”) help to determine if customers blame the organization. Answers like “It came from two employees engaged in a loud discussion” may indicate external blame attribution and subsequent anger. Similarly, employees should pay attention to phrases indicating helplessness (e.g., “I don’t know what to do”). Moreover, when encounters are in person, it is important to observe customers’ body language that reveals emotional states. Angry people often tighten their jaw and tense their muscles (Adelmann and Zajonc 1989). Helpless people may have desperate expressions on their face because they do not know what to do. Yet, employees need training to understand customers’ emotions because their perceptions often differ (Mattila and Enz 2002).

Limitations and further research

This research has several limitations. First, compensation was captured as single-item measure. Further research should use more refined measures and also distinguish between monetary and non-monetary redress. Second,

theory and our study results suggest that helplessness alone leads to inactivity. However, inactivity does not mean that nothing relevant happens. It also implies the omission of an activity one would otherwise have undertaken, such as increasing business with a provider (Zeithaml et al. 1996). Given that many service markets are saturated, it is crucial to increase business with existing customers because the acquisition of new accounts is becoming more and more difficult. Hence, it would be useful to consider whether helplessness alone prevents an increase in service usage. Third, frustration levels are relatively high in both studies, indicating that frustration, although reinforced by situational attribution, is a general negative reaction to aversive events. Future research could manipulate the level of goal congruency, so as to increase the variance in frustration and to examine the intensity of emotional response to service failure. Fourth, both studies were conducted in the hotel industry, which requires customer–employee interactions. Further research should seek to test the model, for instance, with respect to self-service technologies, which are based on human-technology interactions (Meuter et al. 2000). In such interactions, complaining might not be a feasible coping response, but angry and frustrated customers may engage in other coping strategies.

Appendix

Measures for study 1 and study 2

Scale item	Factor loadings ^a	
	Study 1	Study 2
<i>Manipulation checks^b</i>		
External blame attribution (Study 1: $\alpha=.952$, AVE=.87)		
<ul style="list-style-type: none"> • The reason for the noise is something the hotel had control over.^d • To prevent this noise, there are actions the hotel could take but has not.^d • The hotel was responsible for the noise.^d 		
Situational blame attribution (Study 1: $\alpha=.897$, AVE=.85)		
<ul style="list-style-type: none"> • Circumstances beyond anyone’s control caused the noise.^d • The noise was due to outside influences.^d 		
Coping potential (Study 1: $\alpha=.880$, AVE=.84)		
<ul style="list-style-type: none"> • The situation was something the student could cope with.^d • The student could find a way to alter the situation.^d 		
Retrospective explanation (Study 1: $\alpha=.893$, AVE=.84)		
<ul style="list-style-type: none"> • The hotel employee explained why the situation occurred.^d • The hotel employee explained what the company did to prevent negative service experiences.^d 		
Prospective explanation (Study 1: $\alpha=.926$, AVE=.87)		
<ul style="list-style-type: none"> • The hotel employee explained what would happen the next morning.^d • The hotel employee explained that the problem would be less severe the next morning.^d 		
The scenario is realistic. ^d		

(continued)

Scale item	Factor loadings ^a	
	Study 1	Study 2
<i>Model variables</i>		
<i>Support strategies^c</i>		
Retrospective explanation (Study 2: $\alpha=.960$, AVE=.96)		
• The hotel employee explained why the situation occurred. ^d		.980
• The hotel employee explained what the company did to prevent negative service experiences. ^d		.981
Prospective explanation (Study 2: $\alpha=.954$, AVE=.96)		
• The hotel employee explained what would happen the next morning. ^e		.979
• The hotel employee explained that the problem would be less severe the next morning. ^e		.976
Compensation: The hotel employee(s) offered me compensation. ^e		1.000
<i>Emotions</i>		
Anger (Study 1: $\alpha=.942$, AVE=.90, study 2: $\alpha=.911$, AVE=.86)		
• I would feel angry with the hotel/hotel employees. ^e	.938	.892
• I would feel mad with the hotel/hotel employees. ^e	.957	.941
• I would feel furious about the hotel/hotel employees. ^e	.946	.931
Frustration (Study 1: $\alpha=.929$, AVE=.88, study 2: $\alpha=.922$, AVE=.86)		
• I would feel frustrated about the situation. ^e	.937	.930
• I would feel disturbed by the situation. ^e	.930	.926
• I would feel annoyed at the situation. ^e	.940	.934
Helplessness (Study 1: $\alpha=.961$, AVE=.89, study 2: $\alpha=.948$, AVE=.69)		
• I would feel helpless. ^e	.947	.904
• I would feel lost. ^e	.950	.918
• I would feel defenseless. ^e	.943	.893
• I would feel stranded. ^e	.943	.892
<i>Coping responses</i>		
Vindictive nWOM (Study 1: $\alpha=.905$, AVE=.84, study 2: $\alpha=.931$, AVE=.88)		
I would talk to other people about my negative experience to ...		
• ... spread negative word-of-mouth about the hotel. ^d	.931	.959
• ... denigrate the hotel to others. ^d	.908	.950
• ... warn others not to stay at this hotel. ^d	.912	.908
Vindictive complaining (Study 1: $\alpha=.918$, AVE=.86, study 2: $\alpha=.949$, AVE=.94)		
I would complain to the hotel to ...		
• ... give the representative(s) a hard time. ^d	.955	.960
• ... be unpleasant with the representative(s) of the company. ^d	.951	.964
• ... make someone from the organization pay for its poor service. ^d	.877	.934
Support-seeking nWOM (Study 1: $\alpha=.946$, AVE=.86, study 2: $\alpha=.955$, AVE=.88)		
I would talk to other people about my negative experience in order to ...		
• ... get some comfort. ^d	.901	.887
• ... reduce my negative feelings. ^d	.950	.966
• ... feel better. ^d	.946	.967
• ... share my feelings with others. ^d	.914	.939
Problem-solving complaining (Study 1: $\alpha=.938$, AVE=.89, study 2: $\alpha=.951$, AVE=.94)		
I would complain to the hotel to ...		
• ... discuss the problem constructively. ^d	.941	.960
• ... find an acceptable solution for both parties. ^d	.955	.965
• ... work with its representatives to solve the problem. ^d	.934	.940

(continued)

Scale item	Factor loadings ^a	
	Study 1	Study 2
<i>Control variables</i>		
Age		
Sex (male, female)		
Experience of hotel trips ^f		
Dissatisfaction (study 1: $\alpha=.926$, study 2: $\alpha=.916$)		
• I would be satisfied with the service delivery. ^{d, g}		
• The service delivery would have met my expectations. ^{d, g}		
Self-confidence (Study 1: $\alpha=.924$, study 2: $\alpha=.949$)		
• I feel that I have a number of good qualities. ^d		
• I am able to do things as well as most other people. ^d		
• I feel that I am a person of worth, at least an equal plane with others. ^d		
• I have a positive attitude toward myself. ^d		
Level of education (coded as dummy variables) ^c		
• High-school degree		
• College degree		
Apology: The hotel employee(s) apologized to me. ^d		

^a All factor loadings are significant at the .001 level^b Only included in study 1^c Only included in study 2. In study 1, explanations were experimentally manipulated^d 1 = “strongly disagree” to 7 = “strongly agree.”^e 1 = “not at all” to 6 = “strongly”^f 1 = “not experienced, 7 = “very much experienced”^g Items were reverse-coded to capture dissatisfaction. AVE = average variance extracted

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