

# Do It Right This Time: The Role of Employee Service Recovery Performance in Customer-Perceived Justice and Customer Loyalty After Service Failures

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Integrating justice and customer service literatures, this research examines the role of customer service employees' behaviors of handling customer complaints, or service recovery performance (SRP), in conveying a just image of service organizations and achieving desirable customer outcomes. Results from a field study and a laboratory study demonstrate that the dimensions of SRP—making an apology, problem solving, being courteous, and prompt handling—positively influenced customer satisfaction and then customer repurchase intent through the mediation of customer-perceived justice. In addition, service failure severity and repeated failures reduced the positive impact of some dimensions of SRP on customer satisfaction, and customer-perceived justice again mediated these moderated effects.

*Keywords:* customer service, service failure, employee performance, justice, customer satisfaction and loyalty

In an increasingly competitive marketplace, “a focus on the customer has become a major component of organizational strategies, regardless of whether the organization is in the service or manufacturing sector” (Ryan & Ployhart, 2003, p. 377). As a result, increasing research attention has been devoted to identifying factors contributing to customer satisfaction and loyalty. Antecedents examined include management practices (e.g., Borucki & Burke, 1999), service climate (e.g., Schneider, White, & Paul, 1998), leader positive mood (e.g., George, 1995), service leadership (Schneider, Ehrhart, Mayer, & Saltz, 2005), employee affect or emotions (e.g., George, 1990; Pugh, 2001), employee attitudes (e.g., Ryan, Schmit, & Johnson, 1996), employee service performance (Liao & Chuang, 2004), and employee prosocial or citizenship behavior directed toward customers (e.g., George & Bettenhausen, 1990; Schneider et al., 2005).

Although this literature has greatly enhanced researchers' knowledge about customer service, Schneider and Bowen (1999) have also called for more research to understand customer dissatisfaction and outrage, often results of service failures. Service failures are pervasive in service encounters (Maxham & Nete-

meyer, 2002). For example, deliveries for online orders are delayed, food is underprepared in restaurants, and accounts are overcharged, to name just a few. Customers rank companies' handling of complaints about service failures, or service recovery (Gronroos, 1988), as the second most important factor when they make purchase decisions (product quality is ranked first; Conlon & Murray, 1996). In addition, studies show that unhappy customers may tell 10–20 people about their bad experience with a service company (Mattila, 2001). Successful service recovery may prevent this negative word-of-mouth propaganda. There is also some evidence for “service recovery paradox” in which customer satisfaction and patronage intentions increase above prefailure levels when customers are very satisfied with the recovery efforts (e.g., Hart, Heskett, & Sasser, 1990). Further, successful service recovery may help organizations design more effective service delivery processes (Tax, Brown, & Chandrashekar, 1998), on the one hand. Poor service recoveries, on the other hand, exacerbate customer dissatisfaction and decrease customer trust, producing a “double deviation” effect (Bitner, Booms, & Tetrault, 1990). Therefore, doing it right this time by properly handling customer complaints is essential in sustaining customer satisfaction and loyalty.

Prior studies, primarily in the area of marketing research, have examined various types of service recovery behaviors (e.g., Bitner et al., 1990; Goodwin & Ross, 1992; Mattila & Patterson, 2004). However, few have taken a concerted effort to examine them and possible other important behaviors as manifestations of an employee's service recovery performance (SRP). Extending this literature, the current research takes a theory-based approach and proposes an integrated model of factors influencing customer evaluations following service failures. Specifically, this study examines how employee SRP is related to customer satisfaction with service recovery then to customer repurchase intent through the mediation of customer-perceived justice. In addition, prior studies have focused on the main effect of recovery efforts on customer out-

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comes; the current research adds to this literature by examining service failure severity and customer experience of repeated failures as two boundary conditions that may constrain the effectiveness of SRP in achieving desirable customer outcomes. Next I discuss the conceptualization of SRP and then develop a theoretical framework linking SRP to customer evaluations.

### Conceptualization of Employee SRP

Employee SRP is defined as the behaviors in which customer service employees who directly handle customer complaints engage to recover customer satisfaction and loyalty after service failures. Three features of SRP should be noted.

First, the SRP focused on here is the performance of customer service employees. Frontline employees, placed at the organization–customer interface and directly responsible for the production and delivery of service, act as boundary spanners for the service company (Bettencourt & Brown, 2003). A burgeoning stream of “linkage research” in customer service (Wiley, 1996) has demonstrated that the attributes, attitudes, and behaviors of customer service employees play a pivotal role in translating the internal functioning of a service organization into desirable external customer outcomes (e.g., Heskett, Sasser, & Schlesinger, 1997; Liao & Chuang, 2004; Schneider, Ashworth, Higgs, & Carr, 1996; Schneider et al., 1998, 2005). In service recovery, although employees who handle customer complaints may not be directly responsible for committing the service failures and mistakes, many of the recovery activities fall into the domain of these employees (Sparks & McColl-Kennedy, 2001). Therefore, customers will view them as the agents or representatives of the service company and tend to base their recovery evaluations largely on the performance of these employees.

Second, SRP refers to particular types of employee behaviors. This conceptualization of SRP is consistent with the general approach of defining performance as employee behaviors that are relevant to organizational goals (e.g., Campbell, McCloy, Oppler, & Sager, 1993; Motowidlo, 2003) and with the view of customer service performance as “an employee performing specific behaviors in particular ways to increase customer perceptions of service” (Ryan & Ployhart, 2003, p. 380). SRP thus is differentiated from its results; SRP focuses on what employees do and say in handling customer complaints, whereas results of SRP refer to customer perceptual, affective, intentional, and behavioral outcomes that may be influenced by SRP, such as customer satisfaction and repurchase intent. Defining SRP as behaviors has two conceptual and practical advantages (Motowidlo, 2003). First, results may be influenced by factors that are beyond the employee’s control; thus, equating performance to behaviors is less contaminated by situational constraints and opportunities. Second, employee behaviors are more amenable to intervention than is the outcome of the behaviors, thus allowing researchers to apply most fruitful psychological principles to managing SRP behaviors.

The third feature of SRP is that it is a multidimensional construct. Prior studies have examined in isolation different types of recovery efforts following service failures, including reimbursement–refund, replacement, repair, extra compensation, correction, apology, assuming responsibility, timing–speed, explanation–causal account, politeness, empathy, and effort (e.g., Bitner et al., 1990; Clemmer & Schneider, 1993; Conlon & Mur-

ray, 1996; Oliver & DeSarbo, 1988; Sparks & McColl-Kennedy, 2001; Tax et al., 1998). In order to provide a unified framework of SRP, the current study integrates this literature to examine these key recovery behaviors simultaneously and categorize them into five dimensions, including making an apology, problem solving, being courteous, providing an explanation, and prompt handling. Providing extra compensation to the customers has been identified as another important service recovery strategy (e.g., Smith, Bolton, & Wagner, 1999; Tax et al., 1998). However, whether an employee is able to offer extra compensation depends on the company’s policy and thus may be beyond the direct control of the employee. Therefore, it is not considered as a part of SRP.

### SRP and Customer Evaluations: A Mediated–Moderated Model

Next, I propose a framework delineating the intervening mechanisms and boundary conditions for the impact of employee SRP on customer outcomes. The following linkages are discussed in detail: customers’ perceived justice is a proximal determinant of their satisfaction with or their overall evaluation of the recovery experience, which further determines their repurchase intent; frontline service employees’ behaviors of SRP affect customer satisfaction by first directly influencing customer justice perceptions; and the effects of SRP on customer satisfaction are constrained by failure severity and repeated failures.

#### *Perceived Justice, Customer Satisfaction With Service Recovery, and Repurchase Intent*

Drawing on the multiple-needs framework of justice (Cropanzano, Byrne, Bobocel, & Rupp, 2001), I propose that customer-perceived justice plays a central role in service recovery. Integrating the instrumental, relational, and moral virtue models of justice, Cropanzano et al. (2001) argued that justice matters because it serves some important, fundamental psychological needs of a human being to control the environment, to obtain long-term economic benefits, to maintain a positive self-regard and achieve status and esteem from others, and to respect human dignity and worth and to live a virtuous life. Injustice can threaten any and all of these needs, hence triggering an individual’s “defensive cognitions, negative affect, and coping behaviors” (p. 175). Customers also care about justice and expect to be treated fairly in service encounters (Clemmer & Schneider, 1993). When service breaks down, customer complaint activates a sequence of interactions between the customer and the service provider, through which a decision of complaint resolution is made and certain economic and social outcomes are allocated to the customer. Each aspect of this sequence may conflict or fulfill customer justice needs and is subject to customer fairness evaluations (Smith et al., 1999). These fairness evaluations serve as a motivational force and engender customer cognitive and affective responses that further guide customer behaviors. Therefore, customer satisfaction and loyalty will be determined by whether customers feel they have been treated fairly throughout the complaint handling process.

Over 40 years of justice research suggests that several types of justice are relevant for customers in evaluating whether their needs have been met in a service recovery. First, distributive justice (Adams, 1965) is whether customers receive a fair economic or

social outcome after they complain about a service problem. In addition, customers often refer to the process and manner through which the outcome is generated to determine the fairness of the recovery process. Therefore, procedural justice (Thibaut & Walker, 1975), concerning the policies and procedures used to resolve the complaint, informational justice, concerning the adequacy of information and communication provided, and interpersonal justice (Greenberg, 1993), concerning the sensitivity and respect displayed by employees in handling the complaint, are also essential elements of customer justice perceptions.

Because an individual's instrumental, relational, and virtual needs are interrelated, and each of the four types of justice contributes crucial information in assessing the fulfillment of these needs (Cropanzano et al., 2001), customer evaluations of different types of justice are likely to be very highly correlated with each other, as is often the case in field studies of justice (Colquitt & Shaw, 2005). Therefore, for the sake of parsimony in theoretical development and empirical testing, I take a "monistic" perspective (Cropanzano & Ambrose, 2001), conceptualizing customer-perceived justice as a latent, higher order factor driving the four first-order dimensions of procedural, distributive, informational, and interpersonal justice. This approach corroborates the recommendation by Ambrose and Arnaud (2005) and Colquitt, Greenberg, and Scott (2005) to emphasize less the differences among justice types, acknowledge more their interdependence, and focus more on their contribution to an individual's overall sense of fairness.

Prior research has demonstrated strong relationships between customer justice perceptions and customer satisfaction with service recovery and willingness to do business with the service company again (e.g., Goodwin & Ross, 1992; Smith & Bolton, 1998; Smith et al., 1999; Sparks & McColl-Kennedy, 2001). In addition, satisfaction with complaint handling has been found to increase customer trust and retention (Kelley & Davis, 1994) and to mediate the relationship between customer fairness perceptions and postcomplaint commitment to a long-term relationship with the service provider (Tax et al., 1998). Therefore, I propose the following:

*Hypothesis 1:* Customer-perceived justice is positively related to customer repurchase intent through the mediation of customer satisfaction with service recovery.

### *SRP, Perceived Justice, and Customer Satisfaction With Service Recovery*

Adding to extant service recovery literature, the current research examines employee service recovery behaviors as important determinants of customers' justice perceptions. As argued earlier, because customers' judgments about different types of justice are highly interrelated, "an unfair event has the potential to create a series of ripples" that reverberate from one type of justice perception to another type of justice perception, "thereby compounding ill effects" (Cropanzano et al., 2001, p. 179). Therefore, employee SRP behaviors may have both direct and indirect effects on all aspects of customers' justice evaluations of service recovery outcomes and processes. Again, taking a monistic approach to justice, I propose that SRP influences customers' overall sense of fairness, which further influences customer satisfaction with recovery.

Next, the specific SRP dimensions and their impact on customer evaluations are discussed.

*Making an apology.* Apologies in general refer to "confessions of responsibility for negative events which include some expression of remorse" (Tedeschi & Norman, 1985, p. 299). In handling a customer complaint, the company accepts the responsibility for the service failure and regrets for what has happened by making an apology to the customer. Conlon and Murray (1996) argued that the life cycle of a customer complaint (i.e., perceiving a problem, voicing a complaint, and resolving the complaint) parallels the sequence of actions of a lawsuit (i.e., naming, blaming, and claiming). The mere fact that the customer has complained to the company indicates that he or she has "named" the problem and "blamed" the company. Thus, denial of responsibility will be poorly received (Conlon & Murray, 1996). Research shows that apology is associated with higher customer satisfaction following a service failure (e.g., Conlon & Murray, 1996; Smith et al., 1999; Tax et al., 1998).

Justice research sheds light on why making an apology is important in service recovery. In this literature, an apology is viewed as a valuable reward that redistributes esteem in an exchange relationship (Walster, Berscheid, & Walster, 1973), conveys empathy and concern to customers who have experienced the inconvenience (Hart et al., 1990), and sets things right (Cropanzano et al., 2001). Thus, apology has implications for customer fairness evaluations of multiple aspects of a service recovery process. Indeed, apology has been shown to enhance customer-perceived distributive justice (e.g., Tax et al., 1998) and interactional justice (e.g., Smith et al., 1999). Extending this literature and taking a unified approach to justice, I propose that apology positively influences customer-perceived justice underlying various types of justice. This proposition, combined with the previous arguments that customer-perceived justice determines their satisfaction with service recovery, suggests the following:

*Hypothesis 2:* Making an apology is positively related to customer satisfaction with service recovery through the mediation of customer-perceived justice.

*Problem solving.* Beyond receiving an apology, customers who have taken time and effort to complain about the service problem typically expect the mistake to be corrected and the problem to be resolved in order to achieve justice (McColl-Kennedy & Sparks, 2003). For example, customers expect a reimbursement if their accounts were mistakenly charged. Thus, customer complaint offers the service provider an opportunity to reperform the service. The service employees' ability to solve the service problems has been shown to influence customer satisfaction and service quality evaluations (e.g., Bitner et al., 1990). If service employees fail to solve the problem, customers will feel that they have not received the outcomes they expect and deserve, the organization's service recovery policies and procedures are not adequate in generating an appropriate solution, and the interactions with the service employees in the recovery encounter are a waste of time. As a result, inadequate problem solving will produce a "double deviation" effect and will result in perceived injustice, hence intensifying customer dissatisfaction (Bitner et al., 1990; Hart et al., 1990; Maxham & Netemeyer, 2002). Therefore, I include problem solving as a dimension of SRP and expect it to

influence customer satisfaction through the mediation of customer-perceived justice.

*Hypothesis 3:* Problem solving is positively related to customer satisfaction with service recovery through the mediation of customer-perceived justice.

*Being courteous.* This dimension of SRP consists of customer service employees' behaviors that demonstrate politeness, respect, friendliness, and patience when interacting with the customers. Previous research has shown the importance of courtesy on achieving customer satisfaction. For example, Tax et al. (1998) found that an employee's politeness while handling a customer complaint helped diffuse the problem in the mind of a customer. In addition, Blodgett, Hill, and Tax (1997) argued that if employees act rudely when handling customer complaints, the result could be disastrous. Although it has not been examined explicitly in prior studies, customer-perceived justice may act as a mediating mechanism through which courteous behaviors influence customer satisfaction. Justice is fostered when individuals feel they are treated with respect, dignity, and sensitivity (Colquitt, 2001). Polite treatment in itself is a desired social-emotional outcome customers expect to receive following a service failure and helps customers achieve and maintain a positive self-identity. In addition, being courteous is a righteous manner by which employees are expected to interact and communicate with customers in complaint handling. Therefore, being courteous is an important dimension of SRP and may influence customer satisfaction with service recovery through its impact on customer-perceived justice.

*Hypothesis 4:* Being courteous is positively related to customer satisfaction with service recovery through the mediation of customer-perceived justice.

*Providing an explanation.* Explaining to customers what might have caused the service failure may also enhance customer satisfaction. In other contexts, explanations have been found to help gain employees' acceptance of bad news (e.g., downsizing) or negative work outcomes (e.g., pay cut; Bies & Shapiro, 1987). In addition, meta-analyses show that explanations have beneficial effects on procedural and distributive justice and cooperation, retaliation, and withdrawal responses (Shaw, Wild, & Colquitt, 2003). Similarly, in the service recovery context, open communication may alleviate customers' bad feelings about the service failure. An explanation itself may be viewed by customers as an important piece of information, a valuable outcome, and a means to understand and control their service environment, thereby enhancing customers' perceived justice. For example, Tax et al. (1998) found that customers reported higher levels of perceived interactional justice when provided with explanations about what might have gone wrong. In addition, Mattila and Patterson (2004) found that providing a causal explanation regarding the service failure reduced the likelihood of U.S. customers falling prey to the fundamental attribution error and increased their likelihood to attribute the errors to situational factors. However, explanations might backfire if deemed by customers as the service organization's attempts to justifying service failures and to place rather than take blame. Nevertheless, given the predominant empirical evidence so far supporting a positive reaction from recipients of

explanations, I include providing an explanation as a dimension of SRP. In addition, extending prior service recovery research, which has been limited to examining the effect of explanations on interactional justice, I propose that explanations may increase customer satisfaction by enhancing customer overall sense of fairness underlying different types of justice.

*Hypothesis 5:* Providing an explanation is positively related to customer satisfaction with service recovery through the mediation of customer-perceived justice.

*Prompt handling.* Prompt handling refers to service employees' quick response to a customer complaint. Response speed has been linked to customer satisfaction in the service recovery literature (e.g., Bitner et al., 1990; Clemmer & Schneider, 1993; Conlon & Murray, 1996; Parasuraman, Zeithaml, & Berry, 1985; Smith et al., 1999). Justice research also shows that the timeliness of decision making influences fairness perceptions about the decision reached (e.g., Conlon & Fasolo, 1990; Lewicki & Sheppard, 1985). In the context of service recovery, customers may view a prompt response as a valuable and deserved outcome and an appropriate way for the service employee to communicate and interact with customers. Tardy responses, on the other hand, will signal to customers the company's guilt and stalling (Conlon & Murray, 1996), hence resulting in perceived unfairness. Indeed, the speed with which complaints are handled has been identified as an important determinant of customer-perceived procedural justice (e.g., Blodgett et al., 1997; Clemmer & Schneider, 1993; Wirtz & Mattila, 2004). Extending this literature to examine the effect on overall customer-perceived justice, I propose the following:

*Hypothesis 6:* Prompt handling is positively related to customer satisfaction with service recovery through the mediation of customer-perceived justice.

#### *Boundary Conditions for the Effectiveness of SRP*

Although superior SRP may help regain customer satisfaction and then customer loyalty through its impact on justice perceptions, these effects may be constrained by factors not directly related to SRP.

*Failure severity.* The effect of SRP on customer evaluations of service recovery may differ by the magnitude of the failure. Conlon and Murray (1996) reviewed the literature on the efficacy of management's explanations of negative outcomes to workers and found explanations to be helpful in gaining worker acceptance in some studies but not in others. They attributed the inconsistency to different levels of problem severity across studies and argued that explanations for a more severe problem would be perceived as less adequate than those for a less severe problem. Indeed, using a sample of student customers who wrote letters of complaint regarding defective products to the companies, Conlon and Murray found that when product cost was high, customers were less satisfied with the company's apology for a defective product. Smith et al. (1999) also proposed such an interaction and argued that customers require different levels of recovery to restore perceived justice and satisfaction. Applying mental accounting principle, they argued that as failure severity increases, customer-perceived discrepancy between the loss by the failure and the gain

by the recovery also increases; therefore, the added value of the recovery effort decreases. Smith et al. found support for these arguments in the hotel context of their scenario-based study and showed that as the magnitude of service failure got higher, customers viewed the recovery effort of providing compensation and prompt handling less equitable and less satisfying. Extending these arguments and findings to all five dimensions of SRP, I expect failure severity to moderate the relationships between SRP and customer outcomes such that the positive effect of SRP on customer satisfaction will be reduced when the failure is more severe.

*Hypothesis 7:* Failure severity moderates the relationships between SRP and customer satisfaction with service recovery, such that the positive effects of SRP on customer satisfaction with service recovery are reduced under a high level of failure severity.

*Repeated failures.* Another factor that may constrain the effectiveness of employee SRP in achieving desirable customer outcomes is the customer's prior experience with the service company. Drawing on prospect theory, asymmetric disconfirmation, and attribution theory, Maxham and Netemeyer (2002) argued that if the customer has experienced similar failures with the company, even a high service recovery effort in addressing the current complaint may not be enough to generate customer satisfaction. Both prospect theory (Kahneman & Tversky, 1979) and asymmetric disconfirmation (Mittal, Kumar, & Tsiros, 1999) suggest that customers weigh losses more heavily than gains; thus, the negative impact of repeated failures may outweigh the positive impact of recoveries on customer outcomes. In addition, attribution theory (Russell, 1982) suggests that repeated failures will render customers to infer that failures are due to stable, inherent problems of the service company. Such stable attribution will make customers feel heightened discontent with the company's pattern of repeated failures, making it harder to please them with recovery efforts. Indeed, Maxham and Netemeyer (2002) found in a longitudinal study that after customers experienced a second failure with the same company, customer satisfaction and repurchase intent were considerably lower than after first recovery, even though both recoveries were evaluated as acceptable by the customers. Applying this logic to employee SRP and assessing service recovery behaviors directly, I argue that even superior SRP of the current complaint will have a tempered effect on restoring customer satisfaction following repeated failures.

*Hypothesis 8:* Repeated failures moderate the relationships between SRP and customer satisfaction with service recovery such that the positive effects of SRP on customer satisfaction with service recovery are reduced with repeated failures.

In sum, the current research proposes that employee SRP affects customers' satisfaction with service recovery and their subsequent repurchase intent through the mediation of customer-perceived justice. In addition, the effects of SRP on customer satisfaction are constrained by service failure severity and repeated failures. Two empirical studies were conducted to test the proposed framework. Study 1 examined the dimensionality of SRP and tested the mediation hypotheses in a field setting, and Study 2 replicated the

mediation model and tested the moderation hypotheses in a laboratory setting.

## Study 1

### *Sample and Procedure*

Study 1 data came from two sources. Forty-five graduate students enrolled in a research method course collected the first sample of Study 1 data as part of the course requirements. The students received training on survey administration and then obtained certification from the university's Institutional Review Board to collect information from human subjects. They were grouped into 2- to 4-person teams to collect 20–40 surveys. Further, to make the sample as representative of the general population in the United States as possible, I asked the students to have close to 50% men, 50% women, and around 30% ethnic minorities among their participants. They also were instructed to reach out to people of different ages who were at least 18 years old and to administer the surveys in diverse locations. Each team could collect up to 10 extra surveys to receive extra credit. Altogether, the students approached 632 individuals and collected 568 completed surveys; thus, the response rate was 90%. The respondents each received two \$1 lottery tickets in return. The respondents represented employees from 22 companies as well as individuals who were approached at locations such as churches, parks, university campuses, restaurants, retail stores, and shopping malls. The survey first asked whether subjects complained in the past 6 months about any service problem to the service providers or the company's service representatives; the 6-month period was chosen to reduce recall bias (e.g., Lee, Mitchell, Holtom, McDaniel, & Hill, 1999) and was consistent with what was used in much of the service complaint research (e.g., Bitner et al., 1990; Tax et al., 1998). If subjects complained, the survey then asked them to evaluate how their complaints were handled, using the scales described below. Among the respondents, 106 did not have a complaint in the past 6 months and thus were dropped from further analysis.

In order to increase the generalizability of the study findings, I drew a random sample of 3,200 residents across the 50 U.S. states to supplement the data collected by the students. The contact information for these residents was purchased. Surveys with postage-paid return envelopes were sent out to the residents, followed by a reminder 2 weeks later. Nonrespondents were then sent another copy of the survey after an additional 2 weeks, and I followed up with another reminder 2 weeks later. The subjects were offered an opportunity to win a lottery prize of \$100. Among the 2,749 residents who received the survey packages (451 addresses were undeliverable), 531 returned their surveys, representing a response rate of 19%. Among the respondents, 280 were dropped because they did not have a complaint in the past 6 months.

After listwise deletion of individuals from both samples with missing information, the final usable sample for Study 1 consisted of 658 individuals, among whom 48% were male, 37% were part of an ethnic minority, and the average age was 38 years. The service problems experienced and complained about by the customers include overcharges, poor hotel service, delayed delivery for online purchases, slow service at restaurants, defective products, and so on.

Measures

**SRP.** On the basis of the customer service and justice literatures reviewed, the key recovery efforts in rectifying service failures were categorized into five SRP dimensions. As prior studies did not provide explicit behavioral measures for these dimensions, I developed 16 items. On a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*), respondents indicated their agreement with 16 statements concerning the behaviors of the employees who handled their complaints. For Making an Apology, the items include “made an apology to you for what had happened,” “apologized for the inconvenience the problem had brought to you,” and “expressed regret for the mistake the company had made.” For Problem Solving, the items include “had the required knowledge and skills to handle the problem,” “were able to answer your questions,” and “knew the solutions to the problem.” For Being Courteous, the items are “were friendly to you,” “were polite to you,” “showed respect to you,” and “were patient.” For Providing an Explanation, the items include “explained why the service problem might have happened,” “explained what might have gone wrong,” and “explained what factors might have caused the problem.” For Prompt Handling, the items are “reacted promptly to your inquiries,” “quickly attended to the problem,” and “responded to your complaint promptly.”

To assess the dimensionality of the SRP, I collected pilot data from 159 graduate students. The students evaluated the SRP behaviors of the employees who handled their most recent complaint about a service problem. The confirmatory factor analysis (CFA) results reported in Table 1 revealed that the one-factor model, which had all scale items loaded on one factor, fit the data poorly, and the hypothesized five-factor model fit the data reasonably well and significantly better than the one-factor model. In addition, a few two-factor, three-factor, and four-factor models were examined by combining different SRP dimensions; the results show that the five-factor model had a better fit than any of these models. Further, in the five-factor model, all items loaded significantly on their posited SRP dimensions, and none of the 95% confidence

intervals around the correlation of each pair of the dimensions contained the value of 1, providing further convergent and discriminant validity evidence for the model (Anderson & Gerbing, 1988).

**Justice.** Four types of justice perceptions were assessed on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*). Distributive justice was measured with the four-item scale by Smith et al. (1999; e.g., “You got what you deserved”). Procedural justice was assessed by the two-item measure of Smith et al. (e.g., “The length of time the employees had taken to resolve your problem was appropriate”). Informational justice (e.g., “The employees were candid in their communications with you”) as well as interpersonal justice (e.g., “The employees treated you with dignity”) were each assessed with three items by Colquitt (2001).

**Customer outcomes.** Two types of customer outcomes were assessed using scales developed by Maxham and Netemeyer (2002). Customer satisfaction with service recovery was measured by three items on a 7-point scale (1 = *very dissatisfied*, 7 = *very satisfied*; e.g., “How satisfied are you with the company’s handling of this particular problem?”). Customer repurchase intent was assessed by three items (e.g., “How likely are you going to do business with this company again?”) on a 7-point scale (1 = *very unlikely*, 7 = *very likely*).

**Control variables.** To rule out the potential influence of customer demographics on their evaluations of service recovery, I measured customer gender, age, ethnicity, and income. Gender was the only variable that had a significant correlation with customer evaluations and thus it was controlled for in the analysis. Second, respondents’ affective states are often assumed to cause common method variance (e.g., Burke, Brief, & George, 1993); to account for the possibility that “happy” individuals provided more positive evaluations regardless of the level of SRP, I controlled for customer affectivity and assessed it with a 7-point face scale (1 = *a frown—very unhappy face*, 7 = *a very happy face*) on which the respondents specified which face best describes how they typically feel. Third, the service failures experienced occurred at different

Table 1  
Comparisons of Alternative Measurement and Structural Models for Constructs Involved in the Mediation Hypotheses

Model	df	$\chi^2$	RMSEA	RMSEA 90% CI	CFI	IFI	SRMR
Pilot study measurement models for SRP items							
M1: 1 factor	104	1,050.28	.25	.24, .26	.85	.85	.11
M2: 5 factor	94	201.13	.082	.066, .099	.98	.98	.043
Study 1 measurement models for all study items							
M1: 1 factor	299	10,041.49	.25	.25, .25	.83	.83	.12
M2: 3 factor (1 SRP, 1 justice, 1 customer outcome)	296	7,990.84	.21	.21, .21	.87	.87	.12
M3: 8 factor (5 SRP, 1 justice, 2 customer outcomes)	271	1,498.36	.081	.077, .085	.98	.98	.051
Study 1 structural models, controlling for common method variance <sup>a</sup>							
S1: Hypothesized fully mediated model <sup>b</sup>	256	598.62	.045	.040, .050	.99	.99	.021
S2: S1 + justice → repurchase intent	255	598.59	.045	.040, .050	.99	.99	.021
S3: S1 + 5 SRP → satisfaction with service recovery	251	592.34	.045	.041, .050	.99	.99	.020
S4: S1 + 5 SRP → repurchase intent	251	594.45	.045	.041, .050	.99	.99	.020

*Note.*  $N = 159$  in the pilot study.  $N = 658$  in Study 1. In all Study 1 measurement and structural models, control variables including the customer’s gender, affectivity, recall time, extra compensation, and sampling method were partialled out before performing SEM analysis. All chi-squares are significant at  $p < .01$ . RMSEA = root-mean-square error of approximation; CI = confidence interval; CFI = comparative fit index; IFI = incremental fit index; SRMR = standardized root-mean-square residual; SRP = service recovery performance; M = measurement model; S = structural model.

<sup>a</sup> All structural models include the eight latent theoretical trait factors and a latent common method factor. <sup>b</sup> Final specification for the structural model.

times; a failure that happened 3 months ago might not be as salient as a failure that happened yesterday. Therefore, length of recall time was controlled for by asking “How long ago did you complain about this service problem?” Fourth, I controlled for whether the customer received any extra compensation, such as coupon, cash award, and gift certificate, excluding legitimate refund and exchange, from the company (1 = yes, 0 = no); this factor has been shown to influence customer outcomes in service recovery (e.g., Smith et al., 1999; Tax et al., 1998). Finally, Study 1 data were collected through two sampling methods; to account for any additional differences in these two samples that were not assessed by the above control variables or the SRP and justice variables, I controlled for sampling method (1 = nonrandom sampling, 0 = random sampling). Table 2 presents the variables’ descriptive statistics, correlations, and coefficient alpha.

*Structural Equation Modeling (SEM)*

SEM analyses were conducted to confirm SRP’s factor structure and to test the mediation hypotheses. I first examined the measurement models of the relevant study variables prior to introducing the elements of the structural model (Anderson & Gerbing, 1988). In addition, to conserve statistical power, I partialled out the control variables from each of the scale items using STATA (StataCorp, 2003) and used the residuals as input for PRELIS (Jöreskog & Sörbom, 1996) to generate the covariance matrices to be used for LISREL (Jöreskog & Sörbom, 1996) analysis. I used multiple fit indices to gauge individual models’ fit, the 90% confidence interval of root-mean-square error of approximation (RMSEA) to compare model fit of measurement models involving different latent variables, and the chi-square difference test to compare model fit of nested, structural models.

*Measurement models.* The CFA results revealed that an 11-factor model, including 5 dimensions of SRP, 4 dimensions of justice, and 2 types of customer outcomes, fit the data well (RMSEA = .057, comparative fit index [CFI] = .99, incremental

fit index [IFI] = .99, standardized root-mean-square residual [SRMR] = .041). However, inspection of the phi matrix indicated that the 4 justice dimensions were highly correlated with each other, with correlations ranging from .62 to .86 and an average correlation of .75. These results suggest that overall perceived justice could be modeled as a higher order latent variable (Colquitt & Shaw, 2005). Indeed, a second-order CFA of the justice items revealed that factor loadings for both the higher order overall perceived justice factor and the lower order justice dimensions were high and statistically significant, and the 4 justice dimensions of distributive justice, procedural justice, informational justice, and interpersonal justice had factor loadings of .76, .89, .95, and .86, respectively, on the second-order factor, which were comparable with or higher than those reported in Colquitt and Shaw’s (2005) study. Therefore, in subsequent analyses, I included perceived justice as a latent factor, using the 4 justice dimensions’ scale values as its indicators. As reported in Table 1, CFA analyses revealed that the 8-factor model, including 5 dimensions of SRP, 1 measure of perceived justice, and 2 measures of customer outcomes, fit the data well (RMSEA = .081, CFI = .98, IFI = .98, SRMR = .051) and significantly better than the 1-factor and 3-factor models, as it had a smaller RMSEA value and the 90% confidence interval of RMSEA did not overlap with that for the 1-factor model or the 3-factor model.

Further, because all measures were assessed through self-report, in order to control for the effects of common method variance beyond what was generated by customers’ affectivity, I included a latent method factor as the ninth factor and allowed all items to load on their theoretical constructs as well as on the method factor. This approach controls for any systematic variance among the items that is independent of the covariance because of the constructs of interest. It has been used in prior studies (e.g., Williams, Cote, & Buckley, 1989) and is recommended as one of the preferred approaches to control for common method bias when the specific source of the method effects is unknown (Podsakoff,

Table 2  
*Study 1 Descriptives, Intercorrelations, and Coefficient Alpha*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
1. Gender (1 = male)	0.48	0.50	—																	
2. Affectivity	5.46	1.32	-.14	—																
3. Recall time	2.69	1.76	.08	-.06	—															
4. Extra compensation (1 = received)	0.13	0.34	-.09	.05	.04	—														
5. Sampling method (1 = nonrandom)	0.67	0.47	-.11	-.09	.00	.05	—													
6. Making an apology	4.08	1.97	-.05	.09	-.03	.24	.07	<i>.94</i>												
7. Problem solving	4.34	1.79	-.05	.01	-.06	.12	.12	.43	<i>.90</i>											
8. Being courteous	4.56	1.70	-.04	.05	-.03	.15	.02	.70	.49	<i>.96</i>										
9. Providing an explanation	3.88	1.88	-.06	.00	-.07	.10	.16	.37	.37	.45	<i>.96</i>									
10. Prompt handling	3.98	1.96	-.06	-.04	-.11	.15	.10	.53	.63	.64	.39	<i>.95</i>								
11. Distributive justice	3.64	2.04	-.05	.05	-.10	.18	.03	.51	.60	.55	.26	.64	<i>.95</i>							
12. Procedural justice	3.39	1.89	-.07	.05	-.10	.16	.03	.49	.62	.59	.31	.72	.75	<i>.88</i>						
13. Informational justice	4.09	1.63	-.04	.06	-.12	.13	.06	.48	.58	.66	.44	.68	.62	.73	<i>.86</i>					
14. Interpersonal justice	4.00	1.76	-.04	.08	-.07	.13	.02	.57	.57	.77	.42	.66	.65	.70	.78	<i>.92</i>				
15. Customer-perceived justice	3.78	1.61	-.06	.07	-.11	.17	.04	.58	.67	.72	.40	.77	.87	.90	.88	<i>.90</i>				
16. Satisfaction with service recovery	3.34	2.01	-.11	.04	-.11	.22	.07	.53	.61	.58	.31	.68	.83	.78	.67	.70	<i>.85</i>	<i>.97</i>		
17. Repurchase intent	3.37	1.87	-.08	.05	-.12	.13	.00	.37	.45	.46	.27	.52	.56	.59	.51	.53	.62	.66	<i>.91</i>	

Note. N = 658. Correlations of raw scale scores are presented below the diagonal. Coefficient alphas are in italics on the diagonal. Correlations greater than .08 (in absolute values) are significant at p < .05.

MacKenzie, Lee, & Podsakoff, 2003). Indeed, adding the method factor improved model fit; the nine-factor model fit the data well (RMSEA = .067, CFI = .99, IFI = .99, SRMR = .032) and significantly better than the eight-factor model,  $\Delta\chi^2(26, N = 658) = 596.53, p < .01$ . In addition, the nine-factor model's RMSEA value was smaller than that of the eight-factor model (.081), and the nine-factor model's 90% confidence interval of RMSEA (.062, .071) did not overlap with that of the eight-factor model (.077, .085). These results suggest that common method variance was indeed present. Therefore, all subsequent structural models controlled for the method factor in assessing the relationships among the study variables.

**Structural models.** Hypotheses 1–6 predicted that employee SRP would be positively related to customers' justice perceptions, which further relate to customers' satisfaction with service recovery and then to their repurchase intent. Model S1 in Table 1 represents this hypothesized fully mediated model. This model fit the data very well (RMSEA = .045, CFI = .99, IFI = .99, SRMR = .021). Next, nested model comparisons between S1 and three alternative partial mediation models were conducted. In Model S2, an additional path leading from perceived justice to repurchase intent was added to Model S1; the results show that this added path did not significantly improve model fit,  $\Delta\chi^2(1, N = 658) = 0.03, ns$ ; thus, Model S1, the more parsimonious model, should be chosen over Model S2, suggesting that the effect of perceived justice on repurchase intent was fully mediated through customer satisfaction with service recovery. In Model S3, five additional paths were added to Model S1, leading from the five SRP dimensions to customer satisfaction. The results suggest that Model S3 did not fit the data significantly better than Model S1,  $\Delta\chi^2(5, N = 658) = 6.28, ns$ ; thus, Model S1 should be chosen over Model S3, indicating that the effects of SRP on customer satisfaction were fully mediated through customer justice perceptions. Finally, in Model S4, five additional paths were added to Model

S1, leading from the five SRP dimensions to customer repurchase intent. Again these added paths did not significantly improve model fit,  $\Delta\chi^2(5, N = 658) = 4.17, ns$ ; thus, Model S1 should be chosen over Model S4, suggesting that the effects of SRP on customer repurchase intent were fully mediated through the linkages of perceived justice and satisfaction with service recovery.

In sum, the hypothesized fully mediated model was supported. Its paths and standardized coefficient estimates are presented in Figure 1. The path between perceived justice and customer satisfaction with service recovery was positive and significant ( $\beta = .89, p < .01$ ) and so was the path between customer satisfaction with service recovery and repurchase intent ( $\beta = .54, p < .01$ ), thus providing support for Hypothesis 1. Among the SRP dimensions, making an apology ( $\beta = .11, p < .05$ ), problem solving ( $\beta = .35, p < .01$ ), and prompt handling ( $\beta = .35, p < .01$ ) were significantly positively related to perceived justice, providing support for Hypotheses 2, 3, and 6; being courteous had a marginally significant positive relationship with perceived justice ( $\beta = .11, p < .10$ ), lending partial support to Hypothesis 4. Finally, contrary to Hypothesis 5, providing an explanation had a negative relationship with perceived justice ( $\beta = -.09, p < .05$ ). Taken together, the specified model explained 45% of the variance in perceived justice, 80% of the variance in customer satisfaction, and 29% of the variance in repurchase intent.

**Additional analyses.** Study 1 analyses were based on a nonrandom sample and a random sample. As described earlier, the nonrandom sample was quite diverse; in addition, sampling method and various sample characteristics had been controlled for in all of the SEM analyses to account for any potential differences in the two samples. To further ensure that combining the nonrandom sample with the random sample did not bias the results, I reconducted the SEM analyses using the nonrandom sample alone ( $n = 441$ ); I did not reconduct the analyses using the random sample alone because of its small size ( $n = 217$ ). I found that the

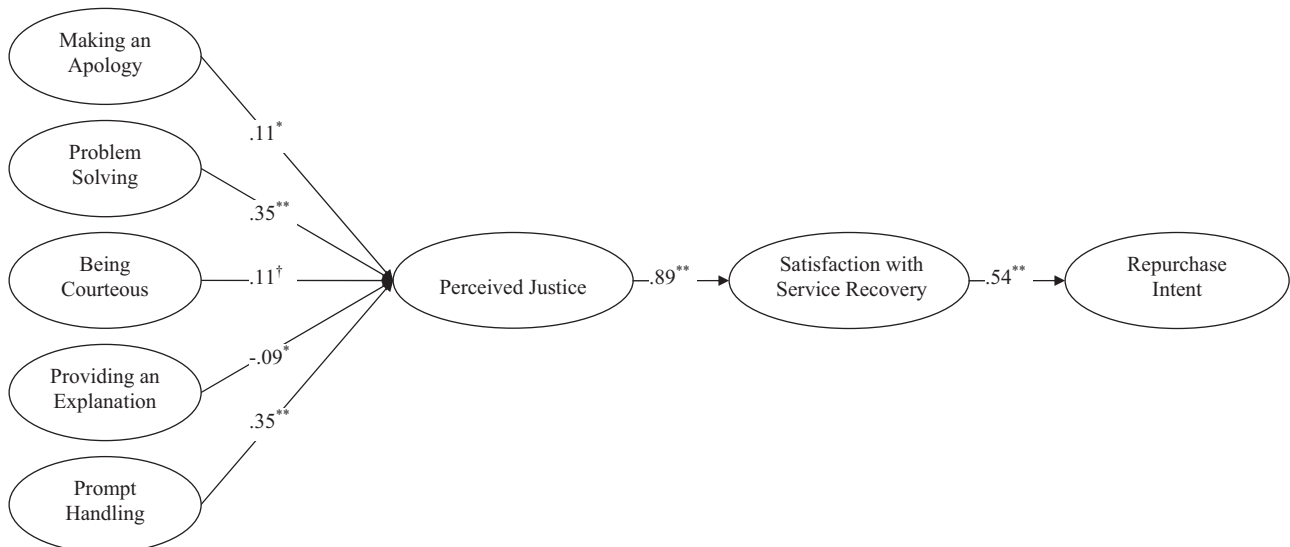


Figure 1. Estimated fully mediated structural model for Study 1. All numbers represent standardized path coefficients for latent constructs, with customer gender, affectivity, recall time, extra compensation, and sampling method partialled out, and the common method factor controlled for. †  $p < .10$ . \*  $p < .05$ . \*\*  $p < .01$ .



pattern of results using the nonrandom sample was largely consistent with that using the combined sample for both the measurement models and the structural models.

Overall, the results from Study 1 confirmed the five-factor structure of the SRP scale and showed that after I accounted for the effects of common method variance and various control variables, four SRP dimensions were positively related to customers' satisfaction with service recovery and then to repurchase intent through the full mediation of customer-perceived justice.

## Study 2

Results from Study 1 provide some support for the proposed mediation hypotheses. One limitation of Study 1, however, was that all measures were assessed through self-retrospective report, making it hard to test the causal effects of SRP on customer justice perceptions, satisfaction, and repurchase intent. In addition, Study 1 was based on customer actual service failure and complaining experiences across a variety of service settings. Although this design increases the generalizability of the findings, thus lending support for the external validity of the model, the internal validity also needs to be established to rule out alternative explanations due to uncontrolled service setting effects. Therefore, a second study was conducted in a laboratory setting in which (a) levels of SRP were manipulated in a set of vignettes and customers' subsequent perceptions were measured and (b) service failure context was constrained to be the same across all manipulations (i.e., the customer's account was overcharged by a phone company). Study 2 also tested the two proposed boundary conditions on the SRP–customer outcomes relationships.

### *Vignettes and Pilot Study*

Study 2 used a  $2 \times 2 \times 2 \times 2 \times 2$  between- and within-subjects experimental design. The six factors being manipulated included the four dimensions of SRP that showed positive impact on customer outcomes in Study 1 (making an apology, being courteous, prompt handling, and problem solving) and the two boundary factors proposed in this research (failure severity and repeated failures). These factors were operationalized as high or low conditions in the manner described in Table 3. Sixty-four vignettes were developed to simulate service failure and complaint handling scenarios in a setting in which a customer called and complained about being charged by the phone company for unsubscribed features. I chose this type of service problem because account overcharge was among the most frequently mentioned problems by customers involved in Study 1. All 64 vignettes started with the sentence "You get this month's phone bill" and had sentences like "You call the customer service of the company" in appropriate places. The subjects first read how the customer service representative handled the complaint and then answered questions imagining themselves as the customers.

To check the manipulations of these factors, in a pilot study I recruited 19 graduate students enrolled in a management course to each evaluate five vignettes, imagining themselves being the customer who experienced the service failure. After reading each vignette, the subjects answered six manipulation check questions as listed in Table 3. A *t* test revealed significant mean differences on the responses for subjects who viewed the high condition and

for those who viewed the low condition. In addition, to determine the realism of the constructed scenarios, I asked subjects to indicate on a 5-point scale (1 = *not at all*, 5 = *completely*) to what extent they think this particular scenario "sounds realistic" ( $M = 4.52$ ) and "could happen in real life" ( $M = 4.57$ ). The coefficient alpha for this two-item measure was .92. The results indicate that the subjects found the scenarios credible.

### *Primary Sample, Procedure, and Measures*

Thirty-two graduate students enrolled in a graduate-level research method course collected the data for Study 2 as part of the course requirements, following a similar procedure as used in Study 1. Altogether, the students collected 395 completed surveys and reported that they had approached 403 individuals; thus, the response rate was 98%. Each survey respondent received a \$1 lottery ticket as a reward for their participation. The respondents represented employees from 23 companies and individuals approached at other locations. Among respondents, 44% were male, 49% were from an ethnic minority, and the average age was 36 years. Survey respondents were each provided with two vignettes and were asked to imagine themselves as the customer who was overcharged by the phone company and who had complained about the service problem; the pairings of these vignettes were arranged in a random manner. After reading each vignette, respondents answered questions regarding perceived justice on four justice dimensions, satisfaction with the service recovery, and repurchase intent, using the same measures as described in Study 1. Consistent with Study 1, customer gender and affectivity were controlled for, and overall perceived justice was assessed as a higher order construct by averaging across the four justice dimensions' scale values. In addition, respondents answered the manipulation and realism questions as used in the pilot study. Listwise deletion of entries with missing information resulted in a final usable sample of 635 evaluations. Descriptive statistics, correlations, and coefficient alphas for Study 2 variables are presented in Table 4.

### *Analysis Strategy and Results*

*Analysis strategy.* Because most respondents each rated two distinct scenarios, dependence of the observations suggests that ordinary least squares regression is not appropriate. Therefore, I used the cluster method by Rogers (1994) in all regression analyses to estimate a variance–covariance matrix that accounts for interdependent error terms within a single respondent and heterogeneous errors across respondents (e.g., see Glomb & Liao, 2003). The covariance matrix is weighted by each respondent instead of each individual rating, so the effective sample size for statistical tests is equal to the number of unique respondents rather than to the number of scenarios.

*Manipulation checks.* After reading each vignette, the subjects answered six manipulation check questions as listed in Table 4. The *t* tests revealed significant mean differences in responses to these questions between subjects who viewed the high condition and those who viewed the low condition. In addition, the subjects provided a rating of 4.03 regarding the realism of the scenarios on the realism scale ( $\alpha = .90$ ), suggesting that the subjects found the scenarios credible.

Table 3  
*Study 2 Manipulations and Manipulation Checks*

Factor and level	Manipulations	Group means		Manipulation check questions	<i>t</i>	
		Pilot sample	Primary sample		Pilot sample	Primary sample
Failure severity						
High	You find that you are charged for several calling features and a broadband Internet service which you actually do not subscribe. A large amount (\$100) is charged to your account for these services.	6.21	5.60	In your opinion, the service problem you experience in this case is a . . . (1 = <i>minor problem</i> , 7 = <i>major problem</i> )	5.07 <sup>***</sup>	10.76 <sup>***</sup>
Low	You find that you are charged for a calling feature which you actually do not have. A small amount (\$5) is charged to your account for this feature.	4.85	4.13			
Repeated failures						
High	This is NOT the first time your account is overcharged by this phone company. You have had similar problems with them before.	1.00	0.92	According to this scenario, is this the first time your account is overcharged by the phone company? (0 = <i>yes</i> , 1 = <i>no</i> )	22.24 <sup>***</sup>	21.94 <sup>***</sup>
Low	This is the first time your account is overcharged by this phone company.	0.09	0.25			
Prompt handling						
High	A customer service representative quickly answers your call. . . . She asks you to stay on the line and says she will immediately look into what might have gone wrong. A few minutes later the representative comes back to you.	5.21	4.91	The customer service representative reacts promptly to your inquiries. <sup>a</sup>	14.74 <sup>***</sup>	15.28 <sup>***</sup>
Low	It takes a long time for a customer service representative to answer your call. . . . She asks you to stay on the line and says she will look into what might have gone wrong. You are put on hold for a long time. Finally the representative comes back but says she needs more time to check what the problem is. . . . Quite a few days later you get a phone call from the representative.	1.62	2.84			
Making an apology						
High	She says it is indeed a mistake of the phone company and apologizes for the inconvenience it has caused you.	5.44	5.01	The customer service representative makes an apology to you for what has happened. <sup>a</sup>	16.64 <sup>***</sup>	22.53 <sup>***</sup>
Low	However, she does not apologize for the mistake of overcharge nor for the inconvenience it has caused you.	1.06	2.01			
Being courteous						
High	The representative listens patiently when you describe the problem. . . . Throughout her communication with you, the representative is friendly, polite, and respectful.	5.19	5.64	The customer service representative is courteous to you. <sup>a</sup>	14.58 <sup>***</sup>	34.14 <sup>***</sup>
Low	The representative seems to be impatient when you describe the problem and rudely interrupts you when you try to finish what you want to say. . . . Throughout her communication with you, the representative seems to be unfriendly, impolite, and disrespectful.	1.36	2.04			
Problem solving						
High	She informs you that she will take the charges for the extra calling features off your account and that the credit will show on your next month's statement. She seems to know very well how to handle this problem. . . . The following month when you check the phone bill you find the mistake has been corrected.	5.67	5.65	The customer service representative solves the problem for you. <sup>a</sup>	17.78 <sup>***</sup>	26.66 <sup>***</sup>
Low	She informs you that she will take the charges for the extra calling features off your account and that the credit will show on your next month's statement . . . The following month when you check the phone bill you find it is still wrong. Not only are you asked to pay for the nonexistent calling features for the previous month, you are charged again for this month.	1.47	2.27			

<sup>a</sup> 1 = *strongly disagree*, 7 = *strongly agree*.

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

Table 4  
 Study 2 Descriptive Statistics, Intercorrelations, and Coefficient Alpha

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. Gender (1 = male)	0.45	0.50	—										
2. Affectivity	5.41	1.30	-.18	—									
3. Failure severity (1 = high)	0.50	0.50	-.01	-.03	—								
4. Repeated failures (1 = repeated failures)	0.51	0.50	.06	-.02	-.02	—							
5. Making an apology (1 = high)	0.51	0.50	-.01	-.02	-.03	-.01	—						
6. Problem solving (1 = high)	0.52	0.50	.05	.04	.02	-.02	-.03	—					
7. Being courteous (1 = high)	0.49	0.50	.06	.05	.03	.03	.01	.01	—				
8. Prompt handling (1 = high)	0.50	0.50	-.07	-.03	-.02	-.02	.02	.01	.00	—			
9. Perceived justice	3.50	1.62	.00	.06	.02	-.08	.13	.36	.53	.31	.79		
10. Satisfaction with service recovery	3.48	1.94	.00	.05	.05	-.06	.12	.58	.32	.19	.79	.90	
11. Repurchase intent	3.15	1.84	.01	.11	-.06	-.14	.07	.46	.26	.14	.64	.72	.97

Note.  $N = 635$ . Coefficient alphas are in italics on the diagonal. Correlations greater than .08 (in absolute values) are significant at  $p < .05$ .

*Testing mediations: Replication of Study 1.* Regression analyses revealed that after I controlled for customer gender and affectivity, high levels of SRP on all four dimensions were associated with significantly higher ratings of perceived justice, satisfaction with service recovery, and repurchase intent. In addition, once customer-perceived justice was included as a predictor of customer satisfaction, the positive effects of making an apology, being courteous, and prompt handling became insignificant, and the positive effect of problem solving remained significant but with reduced magnitude. Therefore, perceived justice fully mediated the effects of making an apology, being courteous, and prompt handling and partially mediated the effect of problem solving. Similarly, customer-perceived justice was positively related to repurchase intent, and the relationship remained significant but with reduced magnitude when customer satisfaction with service recovery was included in the regression. Therefore, customer satisfaction partially mediated the effect of perceived justice on repurchase intent. Together, these results obtained in a laboratory setting to some extent replicated the SEM results from Study 1, which were based on field data, providing general support for the linkages of SRP  $\rightarrow$  perceived justice  $\rightarrow$  satisfaction with service recovery  $\rightarrow$  repurchase intent as delineated in Hypotheses 1–6.

*Testing boundary conditions.* Hypotheses 7 and 8 predicted the impact of SRP on customer satisfaction with service recovery to be constrained by two boundary conditions: failure severity and repeated failures. To test these hypotheses, I conducted moderated regression analyses to examine the interactions between SRP and the moderators. Table 5 presents these results. Consistent with Hypothesis 7, failure severity had a significant, negative interaction with being courteous in predicting customer satisfaction ( $\beta = -.48, p < .05$ ). Supporting Hypothesis 8, repeated failures had a significant negative interaction with problem solving when predicting customer satisfaction ( $\beta = -.56, p < .05$ ). To further demonstrate these interaction effects, in Figure 2 I depict the predicted customer satisfaction under the high versus low conditions of the moderators. Figure 2 (top) shows that although being courteous in general had a positive relationship with customer satisfaction, this positive relationship was reduced under the condition of high service failure severity. Similarly, Figure 2 (bottom) shows that the positive relationship between problem solving and customer satisfaction was reduced with repeated failures. Finally, supplementary analyses reported in Table 5 revealed that the

effects of Failure Severity  $\times$  Being Courteous and the effect of Repeated Failures  $\times$  Problem Solving on customer satisfaction were fully mediated by customer-perceived justice; both interactions were significantly related to customer-perceived justice, and their effects on customer satisfaction became nonsignificant once perceived justice was added in the regression, and perceived justice was significantly related to customer satisfaction. In sum, the results indicate that failure severity and repeated failures indeed reduced the positive impact of some dimensions of SRP on customer outcomes.

## Discussion

This research aimed to integrate and extend the customer service literature on service failure and customer complaint handling by examining simultaneously the multiple dimensions of employee SRP. Further, on the basis of justice theories, a mediated model was proposed in which SRP influences customer satisfaction with service recovery through the mediation of customer-perceived justice, and customer satisfaction further influences repurchase intent. In addition, two boundary conditions that might constrain the effectiveness of SRP on customer outcomes were examined. Data based on a field study and a laboratory study complemented each other, jointly provided evidence for the construct validity of the SRP measures, and provided some support for the proposed mediated and moderated relationships. Study 1 was based on the actual service failure and complaining experience of two samples of customers across a variety of service settings, providing confidence in the external validity of the findings. In addition, Study 1 controlled for customer gender and affectivity, study design features, and common method variance, allowing the assessment of the unique contribution of SRP in explaining customer justice perceptions, satisfaction, and repurchase intent. Study 2 examined how manipulated levels of SRP might influence customer justice perceptions and outcomes in a unified service setting, providing confidence in the internal validity of the findings.

One unexpected finding, however, was that the providing-an-explanation dimension of SRP was negatively related to customer-perceived justice in Study 1. The finding might be a statistical artifact resulting from the covariance between providing an explanation and the other SRP dimensions. It implied that although providing an explanation was positively correlated with customer-

Table 5  
 Study 2 Regression Results Testing the Boundary Conditions of Service Recovery Performance

Variable	Moderator 1: Failure severity			Moderator 2: Repeated failures		
	Perceived justice <sup>a</sup>	Satisfaction with service recovery		Perceived justice <sup>a</sup>	Satisfaction with service recovery	
		Model 1 <sup>a</sup>	Model 2 <sup>b</sup>		Model 1 <sup>a</sup>	Model 2 <sup>b</sup>
Intercept	1.19**	0.92**	-0.07	1.31**	0.95**	-0.14
Gender (1 = male)	-0.08	-0.15	-0.09	-0.07	-0.14	-0.09
Affectivity	0.04	0.02	-0.01	0.04	0.03	-0.01
Failure severity (1 = high)	0.33	0.42	0.15	0.04	0.13	0.09
Repeated failures (1 = repeated failures)	-0.26**	-0.19	0.02	-0.32	-0.04	0.22
Making an apology (1 = high)	0.33**	0.44**	0.17	0.35**	0.47**	0.18
Problem solving (1 = high)	1.23**	2.26**	1.23**	1.36**	2.54**	1.40**
Being courteous (1 = high)	1.86**	1.47**	-0.09	1.53**	1.06**	-0.22
Prompt handling (1 = high)	1.09**	0.82**	-0.09	0.91**	0.77**	0.02
Failure Severity × Making an Apology	0.17	0.10	-0.05			
Failure Severity × Problem Solving	-0.16	-0.02	0.12			
Failure Severity × Being Courteous	-0.35*	-0.48*	-0.18			
Failure Severity × Prompt Handling	-0.26	-0.22	-0.01			
Repeated Failures × Making an Apology				0.15	0.08	-0.05
Repeated Failures × Problem Solving				-0.42**	-0.56**	-0.20
Repeated Failures × Being Courteous				0.30	0.33	0.08
Repeated Failures × Prompt Handling				0.12	-0.12	-0.22
Perceived justice			0.84**			0.83**
F	49.78**	57.41**	133.81**	53.24**	58.90**	148.31**
R <sup>2</sup>	0.53	0.50	0.73	0.53	0.50	0.73

Note. In all regressions, variance and covariance matrices were adjusted using the cluster option in STATA 7.0 to account for the interdependent errors of the two evaluations provided by the same customer and the heterogeneous errors across customers.

<sup>a</sup> *dfs* = 12, 318. <sup>b</sup> *dfs* = 13, 318.

\* *p* < .05. \*\* *p* < .01.

perceived justice, its value got lost at the presence of other recovery efforts. Therefore, when customers have been provided with an apology, treated with courtesy, attended to promptly, and provided with a solution to the problem, they may view service employees' spending energy on explaining what has gone wrong a waste of time. Alternatively, customers might feel that employees are trying to find excuses for service failures. Conlon and Murray (1996) reported that a company's denial of the responsibility of a service failure and assigning blame to a third party generated less favorable customer responses. Therefore, providing information about causes of service failures may not always be well received by customers, unless such explanation makes customers truly believe that factors beyond the company's control are accountable for the problem. Future research should examine the moderating role of perceived accountability in assessing the impact of explanations on justice perceptions.

A second unexpected finding was that service failure severity and repeated failures only mitigated the positive effects of being courteous and problem solving on customer satisfaction but did not reduce the effects of the other SRP dimensions. The challenge of testing interaction hypotheses is that the size of moderating effects is often very small, the statistical power to detect such small effects is extremely low (Aguinis, Beaty, Boik, & Pierce, 2005), and the multicollinearity among study variables makes such detection even more difficult. Despite the odds, in the current study I identified a few significant interactions. The findings should serve to encourage more efforts to examine the boundary conditions of service recovery.

### Limitations and Future Research

Several limitations of the current study need to be acknowledged. First, in the field study, all measures were collected through self-report; thus, the findings are not immune to common method bias. However, this concern is alleviated to a large extent because all of the structural models controlled for customer affectivity, a major source of method variance, and a latent common method factor. Further, the results from the laboratory study in which SRP was manipulated and customers' subsequent evaluations were measured were generally consistent with the proposed theoretical model. Thus, the findings should not have been driven by method variance.

A second limitation of the field study is the use of customers' retrospective recall of service failure and complaining experience, which is subject to recall bias. To reduce recall bias, I asked respondents to answer the questions according to their most recent complaining experience within the past 6 months; evidence shows that people typically are able to recall a specific event, especially negative ones accurately, within a short timeframe like 6 months (e.g., Lee et al., 1999). In addition, I included the length of recall time as a control variable. Therefore, recall bias should not have significantly influenced the findings of the field study. Moreover, these results were largely consistent with those from the laboratory setting in which recall bias was not an issue, providing additional evidence for the validity of the field findings.

A third limitation was that the field study used a cross-sectional design, making causal inferences difficult. Although the laboratory

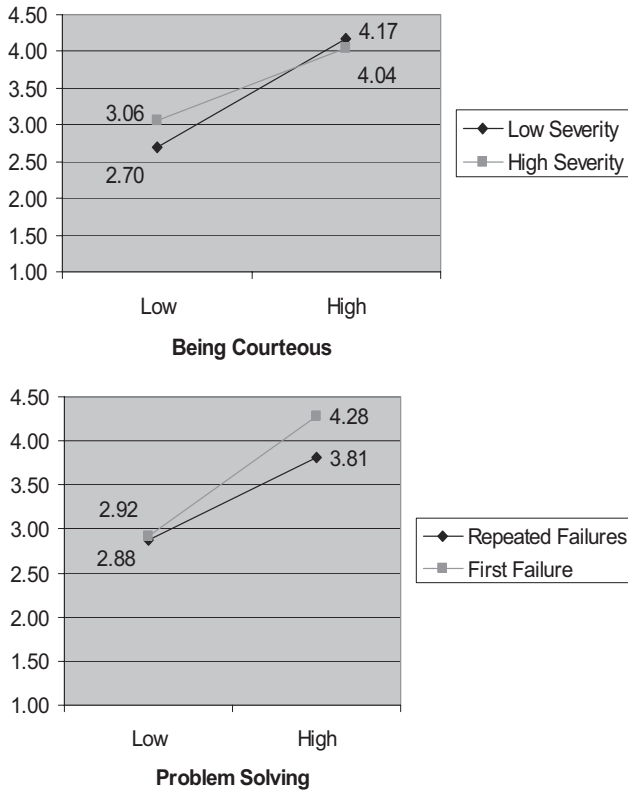


Figure 2. Predicted values of satisfaction with service recovery were based on the coefficient estimates of Study 2 reported in Table 5. All variables except for the manipulated variables were evaluated at the sample means.

study manipulated levels of SRP, hence serving to test the causal effects of SRP on customer fairness perceptions and outcomes, the customer variables were not manipulated and were collected at one time point. Future research should strive to assess SRP, justice perceptions, and customer outcomes at different points in order to examine how their relationships develop over time.

Last, future research may examine the antecedents of SRP. Employees' individual characteristics, such as personality, ability, and motivation, organizational characteristics, such as service climate, job autonomy, and support from internal service, and customer characteristics, such as personality, preference, and prior experience may influence the extent to which frontline service employees can effectively handle customer complaints.

### Managerial Implications

Customer retention is critical for a service organization's survival and success. It is much less costly and more profitable to retain current customers than to obtain new customers (Hart et al., 1990; Keaveney, 1995; Schneider et al., 1998). Given the prevalence of service failures and the emphasis customers place on complaint handling when making repurchase decisions, it is important to understand how to satisfy and retain customers who have experienced service failures. The findings of the current research offer threefold implications in this regard. First, this research underscores the critical role of justice in service recovery.

It was found that customers' justice perceptions accounted for 60%–80% of the variance in their subsequent satisfaction with service recovery. Therefore, customers' overall evaluation or satisfaction with the recovery encounter to a great extent depends on whether they feel they have been treated fairly in terms of the outcomes, procedures, communication, and interpersonal interactions of the recovery process. Sense of unfairness poses direct threats to customers in achieving their basic needs as a human being (Cropanzano et al., 2001), thus severely undermining a service organization's attempt to rectify service failures. Therefore, the current research suggests that service organizations should strive to treat their customers fairly, particularly in service recovery.

Second, the current research provides concrete suggestions on how to enhance customer-perceived justice in service recovery. The findings reveal that frontline service employees' behaviors of prompt handling of customer complaint, effective problem solving, making an apology, and being courteous play a pivotal role in shaping customers' justice perceptions. Therefore, management should ensure that service employees engage in these specific behaviors when handling customer complaints. Toward this end, job descriptions for employees who handle customer complaints should include these SRP behaviors, explicitly outlining these role expectations for the employees. In addition, performance evaluations of service employees should be based on how well they deliver SRP behaviors, instead of focusing exclusively on some widely used cost efficiency-based metric such as call handling time. Further, because what drives customers' justice perceptions is their individual, subjective evaluation of the service recovery, management should obtain feedback directly from customers to gauge the performance level for service employees. Moreover, to enhance employee SRP, employers can provide training to improve employees' problem solving, interpersonal, and perspective-taking skills. Finally, management may empower service employees with necessary resources and discretion for decision making and simplify the process so they are able to respond to customer complaints promptly.

Third, the current research suggests that even high SRP may not be able to restore customer-perceived justice and recover customer satisfaction from severe and repeated service failures. Therefore, service organizations should not view SRP as a panacea in customer service but instead strive to get it right the first time (or at least the second time) and avoid mistakes that may bring big inconvenience and major aggravation to the customers.

In conclusion, the current research demonstrates the importance of frontline customer service employees' SRP in conveying a just image of the service organization and achieving desirable customer outcomes.

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