Journal of Service Research

http://jsr.sagepub.com/

How Much Compensation Should a Firm Offer for a Flawed Service? An Examination of the Nonlinear Effects of Compensation on Satisfaction

Katja Gelbrich, Jana Gäthke and Yany Grégoire

Journal of Service Research published online 24 July 2014
DOI: 10.1177/1094670514543149

The online version of this article can be found at:
http://jsr.sagepub.com/content/early/2014/07/24/1094670514543149

Published by:

http://www.sagepublications.com

On behalf of:

Center for Excellence in Service, University of Maryland

Additional services and information for *Journal of Service Research* can be found at:

Email Alerts: http://jsr.sagepub.com/cgi/alerts

Subscriptions: http://jsr.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.com/journalsPermissions.nav

>> OnlineFirst Version of Record - Jul 24, 2014

What is This?

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

Journal of Service Research
1-17
© The Author(s) 2014
Reprints and permission:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/1094670514543149
jsr.sagepub.com
SAGE

How Much Compensation Should a Firm Offer for a Flawed Service? An Examination of the Nonlinear Effects of Compensation on Satisfaction

Katja Gelbrich[1], Jana Gäthke[1], and Yany Grégoire[2]

Abstract

This research examines the nonlinear effects of compensation on customer satisfaction in order to determine the optimal compensation after a flawed service. As our core contribution, we argue that the nature of this nonlinear effect depends on the way customers handle a flawed service. Building on the Service-Dominant (S-D) logic, this research introduces two specific failure handling tactics—when customers reject versus accept a flawed value proposition—that affect the shape of the nonlinear function of compensation on satisfaction. Our key hypotheses are tested with two experiments that manipulate 11 compensation levels (0–200%) and the two failure handling tactics (rejection vs. acceptance). Consistent with our logic, both studies reveal an S-shaped curve progression for service rejection and a concave shape for service acceptance. For service rejection, the highest incremental effect of compensation on satisfaction lies in between 60% and 120%. For service acceptance, the highest return in satisfaction is obtained with the first dollars invested in partial compensation. As a major managerial takeaway, firms can use these findings to determine the compensation level that provides the best satisfaction return.

Keywords

optimal compensation level, postcomplaint satisfaction, curve progression, service-dominant logic, service failure, flawed service, service recovery

Introduction

A recent meta-analysis indicates that compensation is the key driver of satisfaction after a flawed service (Gelbrich and Roschk 2011a) and its effect remains consistent over time (Fang, Luo, and Jiang 2013). As a result, organizations seeking to maximize satisfaction might be tempted to provide as much compensation as possible. However, this rule—more is better—may be misleading for several reasons. First, some compensation efforts are very expensive, and managers may be concerned about the costs and returns of such actions. Second, research has argued against the linearity of the relationship between compensation and satisfaction (Gelbrich and Roschk 2011b; Hess, Ganesan, and Klein 2003). Compared to normal compensation, overcompensation was found to have a significantly lower incremental effect on satisfaction, and this result suggests that too much compensation may not produce the best return. So what compensation should firms offer after a flawed service?

As our first contribution, the current research aims to identify the compensation level that provides the best return in customer satisfaction. Prior studies (e.g., Grewal, Roggeveen, and Tsiros 2008; Wirtz and McColl-Kennedy 2010; Wirtz and Mattila 2004) distinguish only between two or three compensation levels, which is insufficient to address this issue. Using a continuum of 11 compensation levels (from 0% to 200%), our research draws—for the first time—complete curve progressions between compensation and postcomplaint satisfaction. These curves represent the necessary steps to determine the optimal compensation level—that is, the amount that produces the highest incremental increase in satisfaction.

As our second and core contribution, we propose that the nonlinear shape of a curve progression is contingent on the way customers handle a flawed service offering. Prior research on the effectiveness of compensation has mainly examined moderators that relate to the nature of the flawed service, such as failure type (Smith, Bolton, and Wagner 1999), severity (Roggeveen, Tsiros, and Grewal 2012), or attributions (Hess, Ganesan, and Klein 2003). The current research takes a new perspective by examining the effects of customer failure

[1] Catholic University Eichstätt-Ingolstadt, Ingolstadt, Germany
[2] Department of Marketing, HEC Montréal, Québec, Canada

Corresponding Author:
Jana Gäthke, Catholic University Eichstätt-Ingolstadt, Chair of International Management, Auf der Schanz 49, 85049 Ingolstadt, Germany.
Email: jana.gaethke@ku.de

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

handling tactics, a new variable that refers to the rejection or acceptance of a flawed service. This distinction is rooted in the Service-Dominant (S-D) logic (e.g., Vargo and Lusch 2004), a theoretical framework that we incorporate to the compensation literature for the first time.

A major premise of the S-D logic is that firms only offer value propositions. Customers then decide to engage, or not engage, in the value co-creation process by either *accepting* or *rejecting* this proposition (Vargo, Maglio, and Akaka 2008). When the co-creation process takes place, customers derive an outcome named value-in-use (Lemke, Clark, and Wilson 2011). Extending this reasoning to our context, we introduce service rejection versus service acceptance as two different ways to handle a flawed service. Both tactics are regular occurrences in the marketplace. For example, customers in a restaurant may be served a very salty meal (i.e., the flawed service) and decide to return it (i.e., rejection) or simply force it down (i.e., acceptance).

Importantly, we propose that these two tactics condition the shape of the nonlinear function between compensation and satisfaction. Drawing on the S-D logic and the concept of value-in-use (Grönroos 2008; Vargo and Lusch 2008), we posit that the decision to reject or accept a flawed service determines whether or not customers have a reference point for the expected compensation amount. For service rejection, we propose a reference point and draw on prospect theory (Kahneman and Tversky 1979) to predict an S-shape curve progression. In turn, there should be no reference point for service acceptance, and we draw on the law of diminishing marginal utility (Jolink and van Daal 1998) to predict a concave shape of the curve for this tactic.

Theoretical Background

Effect of Compensation on Postcomplaint Satisfaction

Compensation is a tangible benefit that firms provide to redress a flawed service (Davidow 2003). Whether offered as a correction, discount, or replacement (Chung-Herrera, Gonzalez, and Hoffman 2010), the compensation level is often expressed as a percentage of the loss, categorized as simple compensation (100% or less of the loss) or overcompensation (more than 100%; Gelbrich and Roschk 2011b). Simple compensation can be further categorized as being full (100%) or partial (less than 100%; Davidow 2003). Any point on the compensation continuum, ranging from 0% to overcompensation, can be observed in practice. Academic research has also studied the whole continuum, from low compensation (e.g., 20% discount; Wirtz and Mattila 2004) to high overcompensation (e.g., replacement of the meal plus 100% discount; Hess, Ganesan, and Klein 2003).

Studies have demonstrated the positive effect of compensation on satisfaction (Hess, Ganesan, and Klein 2003; Roggeveen, Tsiros, and Grewal 2012) through the mediation role of distributive justice. This perception of justice—defined as the perceived appropriateness of an outcome (Blodgett, Hill, and Tax 1997)—leads customers to positively assess their experience, which enhances postcomplaint satisfaction. Supporting this logic, a meta-analysis shows that distributive justice mediates the effect of compensation on satisfaction (Gelbrich and Roschk 2011a). This meta-analysis also shows that satisfaction, in turn, leads to repurchase intention.

This research focuses on postcomplaint satisfaction as the key dependent variable of interest because it is an important success criterion in marketing (Szymanski and Henard 2001). Besides, we examine the mediating role of distributive justice as a more upstream variable in the linkage "compensation → distributive justice → satisfaction → repurchase intention." We also examine whether the nonlinear curve progressions hold for repurchase intention as the most downstream customer response. In the next sections, we propose different nonlinear curve progressions for the "compensation-satisfaction" function depending on whether customers reject or accept a flawed offering.

Service Rejection Versus Acceptance

Overview. Customers' decision to reject or accept a service is rooted in the foundational premises of S-D logic (Vargo, Maglio, and Akaka 2008), and we extend this notion to flawed services. Table 1 illustrates this extension: The upper part depicts the basic ideas of the S-D logic; the lower part shows how it can be adapted to a flawed service context. The key adaptations are underlined.

S-D logic. The upper part of Table 1 displays the roles firms and customers play in the service co-creation process, according to the S-D logic. In particular, firms only offer value propositions (Vargo and Lusch 2008), which are defined as a company's resources and competencies that form the foundation of value creation (Grönroos 2008). Customers have the option to *reject or accept* this value proposition: They decide whether or not to engage in the co-creation process with the firm (Vargo, Maglio, and Akaka 2008). If customers accept the value proposition, they will add their own resources and competencies to those of the firm; if they reject the value proposition, they do not engage in such actions (Vargo and Lusch 2008). It is only in the acceptance condition that customers obtain an outcome from the service, which is called value-in-use and represents a combination of hedonist, utilitarian, or even symbolic benefits (Lemke, Clark, and Wilson 2011). In the rejection condition, customers do not add their resources and competencies (Vargo, Maglio, and Akaka 2008) and as a result, they experience no value-in-use from this service offering.

Applying the S-D logic to flawed services. We apply this reasoning to the flawed service context (see lower part of Table 1). Building on the initial premise, flawed services can be seen as defective resources and competencies of a firm that *devaluate* the usual value proposition. Customers may then reject or accept this *flawed* value proposition, and we call these decisions "customer failure handling tactics," labeled as "service rejection" and "service acceptance" in this research. In the following paragraphs, we describe both options and argue that they lead to different levels of value-in-use. Importantly, we posit

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

Table 1. Service Rejection Versus Acceptance as Derived From S-D Logic.

	Role of Firms	Role of Customers	Value-In-Use	Uncertainty About the Compensation
S-D Logic (Grönroos 2008; Vargo and Lusch 2004; Vargo, Maglio, and Akaka 2008)	Make a value proposition by providing resources and competencies	Decide to reject (no co-creation) or accept (co-creation) this value proposition by adding or not adding their own resources and competencies	• Rejection leads to no value-in-use from the service offering • Acceptance leads to value-in-use from the service	—
Extension of this logic for a flawed service	Make a flawed value proposition by providing defective resources and competencies	Decide to reject ("service rejection") or accept this flawed value proposition ("service acceptance") by adding or not adding their own resources and competencies	• Rejection leads to no value-in-use from the flawed service offering • Acceptance leads to a decreased value-in-use from the flawed service offering	• Rejection: lower uncertainty (i.e., clear expectation of 100% compensation for the complete forgone value) • Acceptance: higher uncertainty (i.e., no clear expectation because the decreased value-in-use is hard to evaluate in terms of dollars)

Note. S-D = Service-Dominant.

these different levels of value-in-use affect the expected compensation and their level of uncertainty, which in turn condition the shape of the "compensation-satisfaction" path (as explained in the next section).

Service rejection[1] means that customers decide not to accept the flawed value proposition and refuse to engage in the value co-creation process. As a consequence, they experience no value-in-use from this very flawed service because they do not obtain any outcome. Further, we propose that compensation expectations can be determined with relative certainty in this case. Given that the whole value is lost, customers may expect to receive a full refund—namely 100% compensation—for the value proposition.

Although such rejections are rarely discussed in the literature, they represent a typical way to handle a flawed service observed in the marketplace. For example, people returned their tickets when the lineup of a rock festival changed at the last minute (Reflectionofdarkness.com 2012) or customers refused to stay at a prebooked hotel because their room was filthy and smelt of cigarette smoke (Tripadvisor.com 2007). In both situations, customers did not experience any value-in-use. The music fan did not enjoy the concert or the traveler did not sleep at the hotel. These customers may reasonably expect a full refund for the ticket price and room rate. In other words, we argue that full compensation becomes a clear reference point for the expected compensation in a service rejection context.

In contrast, service acceptance implies that customers accept the flawed value proposition and go along with an imperfect co-creation process. This option entails a decreased value-in-use from the very flawed service rather than an absence of it. The music fan of our prior example will decide to attend the concert despite the lineup change in order to enjoy some—though not his favorite—music. Similarly, the traveler stays overnight at the filthy hotel to have at least a shelter for the night.

In a context of service acceptance, we posit that customers perceive a higher uncertainty about the expected compensation amount. Although customers only derive a reduced value-in-use, they at least experience some of it. Hence, 100% compensation seems exaggerated, but the exact percentage is difficult to determine because the value reduction may be hard to assess. For example, one may be unable to precisely calculate how much fun is lost when attending a rock concert with other musicians than the expected ones or how much benefit is gone when sleeping in a filthy room. As a result of this uncertainty, customers seem to have no clear reference point for the expected compensation.

In sum, because the rejection versus acceptance conditions differ in terms of value-in-use, uncertainty about the expected outcomes, and presence of a clear reference point, we argue that the effects of compensation on satisfaction differ for these two failure handling tactics.

Curve Progressions for Service Rejection Versus Acceptance

Service rejection. Given the presence of a clear reference point for service rejection, we propose that the curve progression should be articulated around this point (i.e., 100% compensation). As the logic of prospect theory strongly relies on an internal comparison with a reference point (Kahneman and Tversky 1979), we argue that this theory is appropriate for predicting the nonlinear effect of compensation on satisfaction for service rejection (see Figure 1, Panel A).

Two postulates of prospect theory are critical for understanding the growth curve in this context (Kahneman and Tversky 1979).[2] First, a positive or negative deviation from the reference point is perceived as a gain or a loss. As previously argued, the reference point should be full compensation (of the initial price). If customers receive less (more), they are in a

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

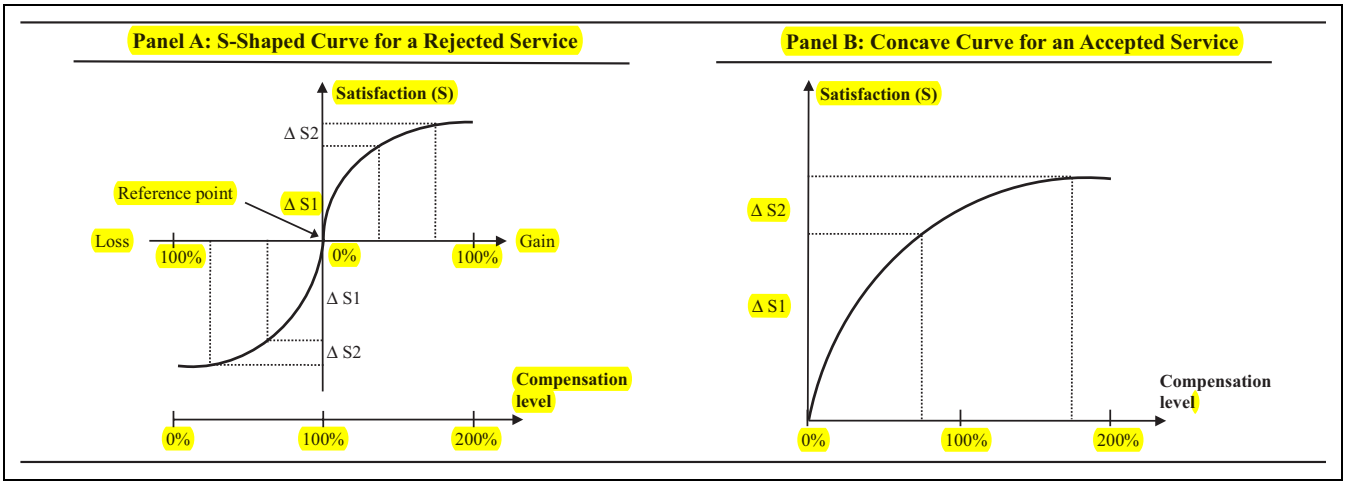


Figure 1. Hypothesized curve progressions for service rejection and acceptance.

"loss" ("gain") situation. Second, the more an outcome deviates from the reference point, the more its marginal utility declines. Therefore, compensation levels close to the reference point should lead to greater incremental changes in satisfaction, compared with compensation levels distant from this point ($\Delta S1 > \Delta S2$ in Figure 1, Panel A), whether as gains (overcompensation) or losses (partial compensation). Accordingly, the curve is concave for gains and convex for losses, resulting in an S-shaped function that is steepest around the reference point. Formally:

> **Hypothesis 1:** For service rejection, the relationship between compensation level and postcomplaint satisfaction is represented by an S-shaped curve, which is first convex and then concave.

Service acceptance. Customers who pursue a service acceptance derive decreased—rather than no—value-in-use. Hence, they may not expect to receive full compensation and should be more uncertain about their expectations. Given the absence of a clear reference, we argue that the "compensation-satisfaction" path should follow the law of diminishing marginal utility (Jolink and van Daal 1998). Specifically, the incremental satisfaction derived from a given compensation should decline as compensation increases ($\Delta S1 > \Delta S2$ in Figure 1, Panel B), which produces a concave shape.

Because of the uncertainty to receive any compensation—the firm could refuse to provide any compensation because the customers accepted to engage in the co-creation process—the first dollars of compensation should produce the highest satisfaction returns. Here, partial compensation can be perceived as an acknowledgment of the inconvenience caused by the flawed offering and because customers were uncertain to receive anything, this gesture is viewed as particularly satisfying. As the amounts increase toward full compensation, they should produce diminished satisfaction returns. Full compensation may be unnecessary, given the customers have already enjoyed some value-in-use. Customers may have the impression of receiving too much, given the flawed service encountered. Based on such inequity concerns (Homans 1974), we suggest that high overcompensation only produces marginal satisfaction returns. Hence:

> **Hypothesis 2:** For service acceptance, the relationship between compensation level and postcomplaint satisfaction is represented by a concave curve.

Conditions Leading to Service Rejection Versus Acceptance

Although service rejection and acceptance are two conceivable failure handling tactics, some conditions may affect their likelihood to occur. These conditions represent the perceived attributes of a flawed service, which should then affect the likelihood of choosing service rejection or acceptance. In this article, we identified three of these conditions: the perceived substitutability of the flawed service, its perceived duration of use, and its perceived inconveniences. Although we do not empirically examine these antecedents, we discuss their presence (or absence) when we present the context of Studies 1 and 2.

Substitutability. The service recovery literature stresses substitution as a preferred recovery effort because it fully resolves one's problems (Chung-Herrera, Gonzalez, and Hoffman 2010). Here, perceived substitutability—which we define as the degree to which customers perceive the flawed service as replaceable—should influence the selection of a given failure handling tactic. Specifically, service rejection should be more likely if customers expect the flawed service to be easily replaceable; in this context, customers would enjoy the expected and preferred offering. In our initial example, the salty food would be replaced by a delicious meal. In contrast, acceptance becomes more likely if no adequate substitute can be offered in a reasonable delay. For example, the customers have to eat the salty meal because the kitchen just closed for the day.

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

Duration of use. Duration of use is an important characteristic of service consumption (Grabner-Kraeuter and Waiguny 2011), and this condition is defined as the expected time a customer anticipates to spend consuming a service. Service rejection should be more likely if customers expect the flawed service to be consumed over a long time period (e.g., when a customer expects spending the whole evening in the restaurant) because this situation implies a persistent suffering. In contrast, service acceptance seems more likely if the consumption time period is perceived to be relatively short (e.g., when customers drop for a quick meal).

Inconveniences. Consuming a flawed service can cause many inconveniences—in the form of harm, distress, and material loss—to customers (Chen, Gerstner, and Yang 2012). Precisely, we define perceived inconveniences as the monetary, psychological, or physical losses customers expect to experience when using a flawed service. Service rejection seems more likely if the flawed service entails unbearable inconveniences (e.g., a completely inedible meal that would make a customer ill). Service acceptance may become more likely when the inconveniences are minor (e.g., a meal that is slightly too salty). As mentioned earlier, we account for these conditions when presenting the different scenarios in Studies 1 and 2.

Overview of the Studies

We conduct three studies. The *Pilot Study* examines key differences—in terms of value-in-use and uncertainty about the expected compensation—between service rejection and acceptance based on the S-D logic. *Study 1* tests the different nonlinear curve progressions for service rejection versus acceptance (Hypotheses 1 and 2). It also assesses the mediation effect of distributive justice (as an upstream variable) and the nonlinear curve progressions for repurchase intention (as a downstream variable). Based on our discussion of the conditions leading to service rejection versus acceptance, we choose a broad failure context for Study 1 that allows for both tactics. *Study 2* serves to establish external validity for the results of Study 1 with two completely different scenarios that reflect unique conditions for either service rejection or service acceptance.

Pilot Study

Purpose, Design, Data Collection, and Measures

The Pilot Study pretests a basic scenario for Study 1 in which we manipulate service rejection and acceptance. We use this study to determine whether service rejection involves less value-in-use and less uncertainty in the compensation expectations, compared to service acceptance. These assumptions represent the cornerstones of Hypotheses 1 and 2; it appears important to support them in order to show that our extension of the S-D Logic is sound.

After multiple pretests, we used a scenario-based experiment with one factor representing the manipulation of failure handling tactics (rejection vs. acceptance). The core scenario described a couple (Susan and Peter), who had paid 100 Euros for musical theater tickets.[3] The flawed service took the form of worn and uncomfortable seats and an obstructed view to the stage. This situation prompted the couple to complain to an employee, who replied they could not offer alternative seats because the performance was sold out.

Because we use the same core scenario for both service rejection and acceptance, one cannot expect any confounds for the three previously identified conditions (i.e., substitutability, duration, and inconvenience). In addition, the scenario described the flawed service offering in a way that subjects could perceive the three conditions as high or low, depending on their own individual assessment of the situation.[4]

First, the participants were just exposed to the basic scenario (without the rejection or acceptance manipulation), and they were asked to indicate how they would react to the flawed service. Fifty percent indicated they would rather stay and see the performance, while the other half was undecided or would prefer to leave. These figures support our contention that we created a broad scenario that allowed for both failure handling tactics. Then, participants were randomly assigned to one of the two manipulations. In one condition, the couple decided to leave the theater (rejection), whereas in the other condition, they went along with the flawed service and watched the performance (acceptance). Sixty students from a German Business School participated in this experiment, with 30 participants in each condition. From this pool, 46.7% were women, and the average age was 20.2 years. Missing values were replaced using the hot-deck imputation method (Hair et al. 2010).

After being exposed to the scenario, the participants put themselves in the position of the complainants and answered manipulation checks for service rejection versus acceptance using two nominally scaled items. Value-in-use was measured with two 7-point semantic differential scale items (Cronbach's $\alpha = .71$). Uncertainty about the expected compensation was captured with 1 item on a 7-point Likert-type scale (see Appendix).

Results

Manipulation Checks. We conducted χ^2 tests crossing the manipulation with each nominal check. Both tests were highly significant ($\chi^2 = 56.129$, $p < .001$; effect size $r = .967$). In the rejection condition, 29 of the 30 participants indicated that Peter and Susan did not see the performance; all the participants in the acceptance condition indicated that the characters attended the performance. Finally, the scenarios were viewed as realistic ($M_{\text{rejection}} = 5.13$; $M_{\text{acceptance}} = 5.33$) and likely ($M_{\text{rejection}} = 5.33$; $M_{\text{acceptance}} = 5.40$) on 7-point scales. Overall, the manipulation worked as expected.

Value-In-Use and Uncertainty. We conducted two analyses of variance (ANOVAs) with the manipulation as the independent variables and the scales on value-in-use and expectation uncertainty as the dependent variables. As expected, service

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

rejection is associated with less value-in-use ($M_{rejection} = 1.65 < M_{acceptance} = 3.40$), $F(1, 60) = 41.133$; $p < .001$; effect size $r = .807$, and less uncertainty in the compensation expectations ($M_{rejection} = 2.27 < M_{acceptance} = 3.33$), $F(1, 60) = 5.423$; $p < .023$; effect size $r = .366$, compared to service acceptance.

Discussion of the Pilot Study

The Pilot Study pretests a realistic scenario for Study 1 that allows for both service rejection and service acceptance. More importantly, it supports the basic assumptions derived from the S-D logic to develop Hypotheses 1 and 2. In the service rejection condition, customers perceive no value-in-use and less uncertainty about their expected compensation. Hence, a reference point is more appropriate in this condition, and an S-shaped curve based on prospect theory is more likely (Hypothesis 1). In turn, customers using an acceptance tactic derive some value-in-use from their experience, and thus, they are more uncertain about their expected compensation. Hence, we suggest a concave curve based on the law of diminishing returns (Hypothesis 2).

Study 1

Design and Data Collection

This experiment was a 2 (rejection vs. acceptance) × 11 (compensation levels) between-subjects design using the scenarios from the Pilot Study. We added the between-subjects manipulation of compensation levels by describing the employee as apologizing and offering compensation in the form of a credit. We increased compensation level in 20% increments, ranging from 0% to 200%.

We used audiovisual stimuli with photographic slides and audiotaped conversations between "Susan and Peter" (Bateson and Hui 1992). Such stimuli reach a balance between the control offered by experiments and the ecological validity of real-life situations (Baker et al. 2002). We followed Victorino et al. (2012) to develop the stimuli. We used the pretested written vignettes (see the Pilot Study) as the basic scenario and reproduced it with a series of pictures of a couple in a real theater. We taped multiple conversations with native speakers and then chose those that best captured the vignettes. Finally, the videos were inserted into an online questionnaire.

After being exposed to the scenario, respondents answered manipulation checks, dependent and control variables. Data were collected online, from a national sample of adult German consumers using quota for gender and age. We eliminated participants who filled out the questionnaire faster than the video lasted, which resulted in 633 questionnaires (rejection: $n = 320$; acceptance: $n = 313$; $n = 31$–26 across the 22 cells). Of these participants, 51.3% were women; their ages ranged from 18 to 86 years ($M = 46.9$ years). Missing values were replaced using the hot-deck imputation method.

Measures and Measurement Validation

To check the compensation manipulation, we used an open-ended question about the perceived monetary value of the remuneration. Two items measured the realism and the credibility of the audiovisual scenario (McColl-Kennedy, Daus, and Sparks 2003). Satisfaction was measured by 3 items (Cronbach's $\alpha = .99$; Maxham and Netemeyer 2002). Control variables were established context factors identified in prior research: failure severity (1 item; Hess, Ganesan, and Klein 2003), external failure attribution (3 items; Cronbach's $\alpha = .79$; Folkes, Koletsky, and Graham 1987), prior complaint experience (1 item; Jin 2010), and income (1 item). Most of the items were measured with 7-point Likert-type scales. However, we used an 11-point scale to measure satisfaction in order to create sufficient variance for the curve progressions (Homburg, Koschate, and Hoyer 2005). We accounted for common method variance by using the confirmatory factor analysis (CFA) marker technique (Williams, Hartman, and Cavazotte 2010). The Appendix lists all scales.

To examine the psychometric properties of the multi-item scales, we performed a CFA for the key constructs involved in the hypotheses for both the rejection and acceptance conditions. The CFA models fit the data appropriately (rejection: $\chi^2/df = 1.411$, goodness-of-fit index (GFI) = .982, adjusted goodness-of-fit index (AGFI) = .959, root mean square error of approximation (RMSEA) = .036; acceptance: $\chi^2/df = 1.643$, GFI = .977, AGFI = .948, RMSEA = .045). Convergence validity was established by calculating the composite reliability (CR) and the average variance extracted (AVE; see Appendix). The discriminant validity was established according to Fornell and Larcker (1981). We also tested for measurement invariance across gender, age (young vs. old), and complaint experience (low vs. high). Our results provide evidence for full configural and metric invariance in our measurement model (Vandenberg and Lance 2000).

Manipulation Checks

We conducted ANOVAs with the compensation manipulation as the independent variable and the perceived compensation amount as the dependent variable. Both models were significant for rejection, $F(10, 320) = 201.793$; $p < .001$, and acceptance, $F(10, 313) = 325.617$; $p < .001$. For rejection, a Duncan's post hoc test revealed nine significantly different subgroups at the .05 level. Only the differences between 60% and 80% compensation ($M_{60\%} = 3.89 \approx M_{80\%} = 4.48$; $p > .05$) as well as 100% and 120% compensation ($M_{100\%} = 5.67 \approx M_{120\%} = 5.87$; $p > .05$) were not significant (although the means were in the expected direction). For acceptance, Duncan's post hoc test revealed 11 significantly different subgroups ($p < .05$), in the expected direction. Finally, the respondents could adopt the role of Susan and Peter ($M_{rejection} = 5.91$; $M_{acceptance} = 6.11$) and perceived the videos as believable ($M_{rejection} = 5.66$; $M_{acceptance} = 6.00$) on a 7-point scales (see Appendix). Overall, the manipulations were effective.

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

Table 2. Hierarchical Regression Results (Study 1).

	Service Rejection				Service Acceptance			
Model	Baseline	Linear	Quadratic	Cubic	Baseline	Linear	Quadratic	Cubic
Constant	6.641***	6.641***	7.555***	7.542***	7.991***	7.991***	9.405***	9.417***
Failure severity	.186	.303**	.303**	.289**	.260	.216	.215*	.205*
External attribution	.099	−.025	.024	.054	.055	.149	.148	.153
Complaint experience	−.119	−.037	−.061	−.052	−.205	−.022	−.011	−.001
Income	−.190	−.307	−.369	−.385	−.199	−.094	−.192	−.289
Compensation level (linear)	—	.988***	.984***	1.341***	—	.727***	.735***	.435***
Compensation level (squared)	—	—	−.094***	−.093***	—	—	−.146***	−.148***
Compensation level (cubed)	—	—	—	−.020**	—	—	—	.017**
R^2	.010	.550	.589	.602	.021	.400	.523	.535
Adjusted R^2	−.002	.543	.581	.593	.008	.390	.513	.524
F-value	.804	76.878***	74.766***	67.366***	1.649	40.974***	55.851***	50.106***
ΔR^2	.010	.540	.039	.013	.021	.379	.122	.012
ΔF-value	.804	377.334***	29.419***	10.026**	1.649	194.138***	78.513***	7.985**

Note. Unstandardized regression coefficients. *p < .05, **p < .01, ***p < .001 (two-tailed).

Hypotheses Testing

We tested Hypotheses 1 and 2 using multistep hierarchical regression (Cohen et al. 2003). We started with a baseline model that only contained the controls and then added linear, quadratic, and cubic terms for the effects of compensation (Janssen 2001). Prior to this, we centered all independent variables (Cohen et al. 2003), which resulted in VIF values below 10, indicating that multicollinearity was not a problem (Hair et al. 2010).

Hypotheses 1. Hypothesis 1 proposes an S-shaped curve after service rejection, as expressed by a cubic regression model:

$$\mathrm{SAT} = b_0 + b_1\mathrm{COMP} + b_2\mathrm{COMP}^2 + b_3\mathrm{COMP}^3.$$

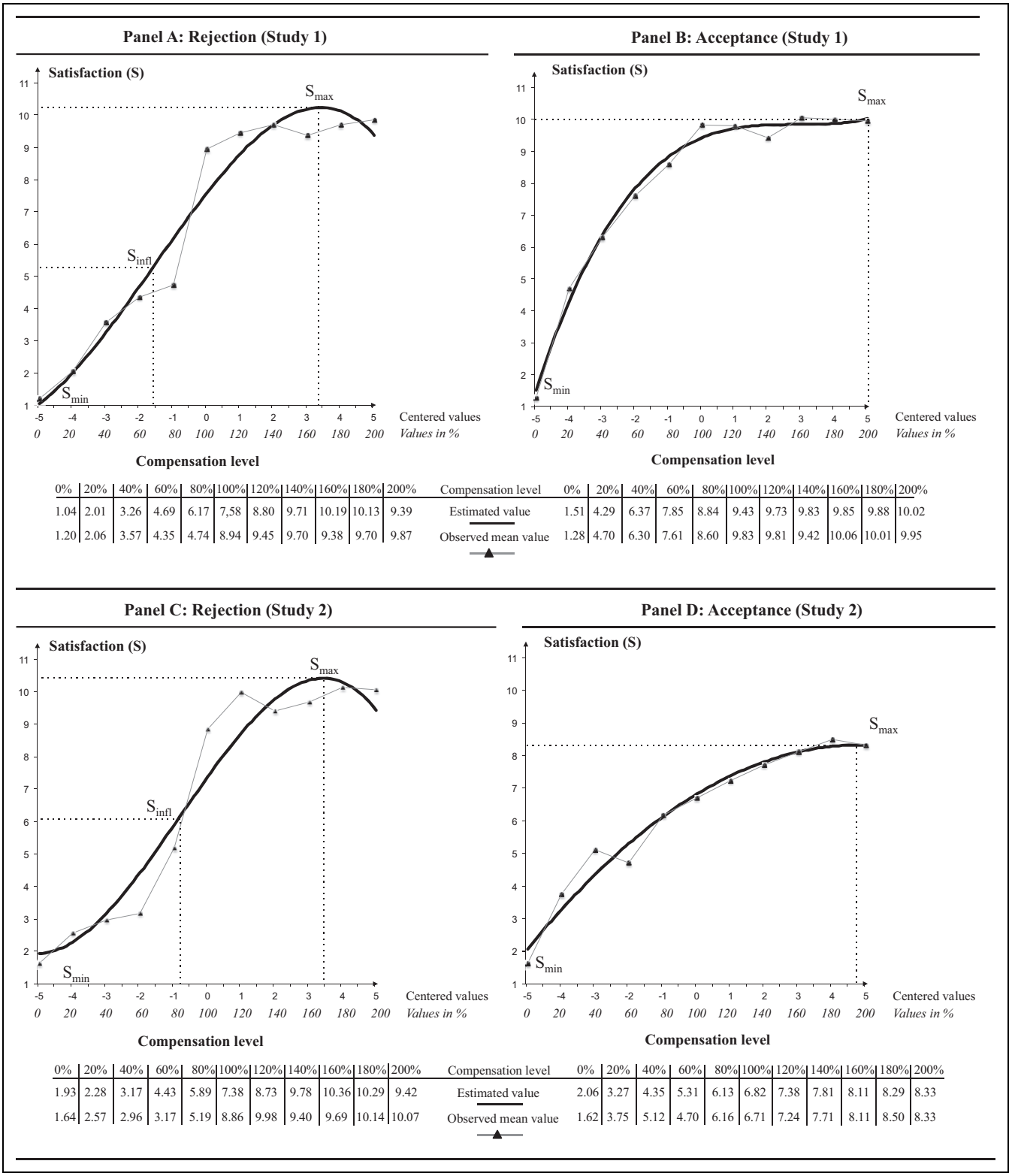
In this formula, SAT indicates satisfaction, and COMP is the manipulated compensation. The regression coefficients indicate the intercept (b_0), as well as the linear (b_1), quadratic (b_2), and cubic (b_3) slope parameters.

The left part of Table 2 contains the results of the multistep hierarchical regression for service rejection. The control variables in the baseline model explain no variance in satisfaction (adjusted $R^2 = -.002$). F-tests for the change in R^2 reveal that adding the linear ($\Delta R^2 = .540$; $F = 377.334$, $p < .001$), quadratic ($\Delta R^2 = .039$; $F = 29.419$, $p < .001$), and cubic terms ($\Delta R^2 = .013$; $F = 10.026$, $p < .002$) yields significant increases, with the cubic model displaying the highest adjusted R^2 value (.593). All relevant regression coefficients (b_1–b_3) in this model are significant. The linear term is positive ($b_1 = 1.341$), indicating that compensation has a positive overall effect on satisfaction. The quadratic term is negative ($b_2 = -.093$). The cubic term is also negative ($b_3 = -.020$), indicating an S-shaped curve progression: first convex, then concave (Cohen et al. 2003), which supports Hypothesis 1. Figure 2 (Panel A) displays the estimated curve progression. This curve shows that the flawed service leads to dissatisfaction ($S_{\min} = 1.0$ in the 0% compensation group). The inflection point, which indicates the greatest increase in satisfaction, is 68% compensation and yields a satisfaction of 5.3 (S_{infl}). The maximum satisfaction ($S_{\max} = 10.2$) arises at 168% compensation.

Hypotheses 2. We followed the same procedure to test Hypothesis 2 that predicts a concave curve for service acceptance (see the right part of Table 2 for the results). The baseline model explains only a small portion of variance in satisfaction (adjusted $R^2 = .008$). The F-test shows that adding the linear ($\Delta R^2 = .379$; $F = 194.138$, $p < .001$), quadratic ($\Delta R^2 = .122$; $F = 78.513$, $p < .001$), and cubic terms ($\Delta R^2 = .012$; $F = 7.985$, $p < .005$) yields significant R^2 increases. Again, the cubic model displays the highest adjusted R^2 value (.524). All relevant regression coefficients in this model (b_1–b_3) are significant. While b_1 and b_2 are significant and in the same direction as for the rejection condition (positive and negative, respectively), b_3 is in the opposite direction (from negative to positive) and this difference is important. Here, the positive sign of the cubic term ($b_3 = .017$) indicates that the curve progression for service acceptance is first concave and then convex (Cohen et al. 2003). A look at the estimated curve (Figure 2, Panel B) shows that it is concave for most of the compensation levels (from 0% to 158%), and the steepest increase in satisfaction occurs at the first levels of partial compensation. The convex portion of the curve only occurs for high overcompensations and it is of small amplitude. Because the majority of the curve progression is concave, we conclude that Hypothesis 2 is partially supported. Important data points are the minimum ($S_{\min} = 1.5$) and maximum satisfaction ($S_{\max} = 10.0$), reached at 0% and 200% compensation, respectively.

Control variables. Only failure severity has a significant positive effect on satisfaction in both conditions. Prior complaint experience, external attribution, and income are nonsignificant.

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014



Compensation level	0%	20%	40%	60%	80%	100%	120%	140%	160%	180%	200%
Estimated value	1.51	4.29	6.37	7.85	8.84	9.43	9.73	9.83	9.85	9.88	10.02
Observed mean value	1.28	4.70	6.30	7.61	8.60	9.83	9.81	9.42	10.06	10.01	9.95

Compensation level	0%	20%	40%	60%	80%	100%	120%	140%	160%	180%	200%
Estimated value	2.06	3.27	4.35	5.31	6.13	6.82	7.38	7.81	8.11	8.29	8.33
Observed mean value	1.62	3.75	5.12	4.70	6.16	6.71	7.24	7.71	8.11	8.50	8.33

Figure 2. Estimated and observed curve progressions.

Upstream and Downstream Analyses

Distributive justice. Distributive justice (2 items; Cronbach's $\alpha = .97$; Blodgett, Hill, and Tax 1997) was argued to play a mediating role in the "compensation → satisfaction" path. We tested this mediation in both conditions following Zhao, Lynch, and Chen (2010). First, using bootstrap analysis (Preacher and Hayes 2004, 2008), we find that the indirect

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

effect is positive and significant for both service rejection ($b = .893$; 95% confidence interval [CI] = [.797, .983]) and service acceptance ($b = .710$; 95% CI = [.607, .808]). Thus, mediation exists for both failure handling tactics. Second, we classify the type of mediation. For service rejection, the direct effect of compensation on satisfaction decreases but remains significant when controlling for distributive justice. Further, this direct effect is in the same direction as the indirect effect ($b = .089$, $p < .025$), suggesting complementary mediation. For service acceptance, the direct effect of compensation becomes nonsignificant when controlling for distributive justice ($b = .018$, $p < .601$), suggesting indirect-only mediation. We also tested this mediation using structural equation modeling, which is more precise than classical mediation analysis (Iacobucci, Saldanha, and Deng 2007). The results confirm indirect-only mediation of distributive justice for both contexts and not only for service acceptance.

Repurchase intention. We perform the same regression analyses that we used to test Hypotheses 1 and 2, but with repurchase intention as the dependent variable (see Appendix for the measurement item). For service rejection, the curve is first convex and then concave (i.e., S-shaped). For service acceptance, the largest portion of the curve is first concave accompanied with a convex curve for high overcompensation levels. These results are consistent with those for satisfaction, but the explained variance is lower (adjusted $R^2 = .370$ for rejection and .356 for acceptance) than for satisfaction.

Negative Returns Versus Saturation?

In Figure 2, the estimated curve for *service rejection* indicates negative satisfaction returns for high overcompensations (starting at 168%). However, statistical models only approximate reality. Hence, we follow Cohen et al. (2003) and compare the polynomial regression results to the actual data, as represented by the observed mean values displayed in Figure 2 (Panel A). For high overcompensations (140% to 200%), the observed means—including a Duncan's post hoc test—reveal no significant differences in satisfaction ($M_{140\%} = 9.7$, $M_{160\%} = 9.4$, $M_{180\%} = 9.7$, and $M_{200\%} = 9.9$; $p > .05$). Consistent with our prediction, this result indicates saturation rather than a decline in satisfaction.

In turn, the estimated curve for *service acceptance* seems to indicate a slight increase for high overcompensation at about 200%. Again, we examine the observed satisfaction means for high overcompensations (see Figure 2, Panel B). Since a Duncan's post hoc test shows no significant differences ($M_{140\%} = 9.4$; $M_{160\%} = 10.1$; $M_{180\%} = 10.0$; $M_{200\%} = 10.0$; $p > .05$), saturation seems more consistent with the data than a positive return for high overcompensation.

Discussion of Study 1

To the best of our knowledge, Study 1 provides the first complete evidence of the nonlinear curve progression between compensation and satisfaction. These patterns differ for service rejection versus acceptance. When customers reject a flawed service, the estimated satisfaction levels follow an S-shaped trajectory. For service acceptance, estimated satisfaction mainly follows a concave curve. Furthermore, Study 1 indicates that distributive justice plays a role of mediation for both failure handling tactics and that our predictions are replicated for a more downstream variable like repurchase intention.

At first glance, the estimated curves for both failure handling tactics seem to show unexpected patterns for high overcompensation: a downward slope for rejection and an upward slope for acceptance. However, further examinations of the observed mean values rather indicate saturation effects for high overcompensation in both conditions.

Finally, Study 1 tests a broad and unique setting of a flawed service that allows for both service rejection and service acceptance. Yet, it needs to be tested whether the curve progressions for both failure handling tactics remain valid in situations with more extreme specifications, in which the attributes of the context—in terms of substitutability, duration, and inconvenience—may vary for acceptance and rejection.

Study 2

Design and Data Collection

Study 2 tests the robustness of Hypotheses 1 and 2 in different contexts. We used a scenario-based experiment with a 2 (failure handling tactic; within subjects) × 11 (compensation; between subjects) mixed factorial design. In the scenarios, a customer encounters a flawed service and then complains to an employee. To increase external validity, we chose two different contexts for rejection versus acceptance.

For *service rejection*, we described the case of Thomas who bought a winter jacket for 100 Euros from a clothing company. After a few days, he washed the jacket, carefully following the instructions. Unfortunately, the jacket completely lost its shape and became unwearable. The jacket—viewed as a service device (Vargo and Lusch 2004)—provided a flawed value proposition, which Thomas completely rejected because he stopped wearing it.[5] This scenario, based on its attributes, was designed in a way that rejecting the jacket seemed most likely. In particular, this flawed service is presumably easy to substitute (i.e., a jacket is replaceable), the jacket would have been used for a long time, and this situation would cause considerable inconvenience (i.e., the jacket is unwearable).

For *service acceptance*, we select a hotel stay for 100 Euros. When arriving at the fully booked hotel, a guest named Daniel learned that the room was dirty, and the air conditioning and the shower did not work appropriately. Despite the knowledge of a flawed value proposition, Daniel accepted the situation and spent the night at the hotel. The conditions associated with this context should lead toward an acceptance of the flaw. The filthy room was hard to substitute because the hotel was fully booked. The reservation was only for one night, that is, a short duration period. Finally, one could argue that the

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

inconvenience was tolerable; although the room was filthy, the guest has at least some shelter for the night.

The key advantage of using two contexts associated with different conditions (jacket vs. hotel) is to enhance the generalizability of our predictions. An important disadvantage may be a lack of equivalence between both scenarios, which could potentially raise an issue of confounds (Smith, Bolton, and Wagner 1999). To reduce this possibility, we extensively pretested both scenarios; we aligned them in terms of character (a businessman), price (100 Euros), and compensations; and we controlled for the typical context variables (i.e., severity, attribution, and complaint experience).

As in Study 1, we manipulated the 11 *compensation levels* between subjects. In contrast to Study 1, we manipulated failure handling tactics within subjects: Each respondent was exposed to one rejection (flawed jacket) and one acceptance scenario (flawed hotel room). The mixed-factorial design produced 22 scenarios, 11 each for rejection and acceptance, respectively. A within-subjects manipulation was deemed applicable because we used different industries for the two tactics, which minimizes demand effects. To further reduce possible demand effect, we held the manipulated compensation constant across rejection and acceptance for each respondent, and we randomly rotated the exposure to the scenarios. Then, we reran regression analyses adding the scenario sequence as an independent variable. For service rejection, there was no significant effect of the sequence variable on satisfaction. For service acceptance, the sequence variable, though significant, did not change the curve progression.

Data were collected from a sample of German consumers using quota for gender and age. Overall, 643 respondents completed the paper-and-pencil questionnaire; we retained the 617 respondents who completed the manipulation checks. Overall, 50.2% were women, and the average age was 45.8 years.

Measurement and Measurement Validation

Respondents answered the same questions as in Study 1: satisfaction (3 items; Cronbach's α: rejection = .98, acceptance = .97) as the dependent variable and failure severity (1 item), external failure attribution (3 items; Cronbach's α: rejection = .83, acceptance = .72), prior complaint experience (1 item), and income (1 item) as control variables. Again, we excluded the effects of common method variance using the CFA marker technique. The CFA models of the key constructs appropriately fit the data (rejection: χ^2/df = .752, GFI = .995, AGFI = .988, RMSEA = .000; acceptance: χ^2/df = 1.535, GFI = .989, AGFI = .975, RMSEA = .029). All multi-item constructs achieved internal consistency, with adequate values for CR and AVE (see Appendix). All factor loadings were substantial and significant. We tested discriminant validity following Fornell and Larcker's procedure. Finally, a test of measurement invariance across gender, age (young vs. old), and previous complaint experience (low vs. high) supported full configural and metric invariance.[6]

Manipulation Checks

The manipulations for rejection versus acceptance were tested in a preliminary study (n = 75 respondents, women: 46.7%, average age = 23.9 years; Perdue and Summers 1986). The manipulation checks were two nominal measures similar to the musical study items, but adapted to the contexts (see Appendix). The effect of the manipulation on the checks was significant (first measure: $\chi^2 = 60.032$, $p < .001$, effect size $r = .895$; second measure: $\chi^2 = 63.519$, $p < .001$, effect size $r = .920$). In the rejection condition, 36 and 37 of the 39 participants indicated a rejection on the first and second nominal scale, respectively. In the acceptance condition, 35 of the 36 participants indicated an acceptance on both nominal scales. Overall, this manipulation worked as expected.[7]

We checked the manipulation of compensation in the main study (Study 2). This manipulation significantly affected the compensation check both for rejection, $F(10, 617)$ = 369.781; $p < .001$, and acceptance, $F(10, 617)$ = 315.548; $p < .001$. A Duncan's post hoc test revealed 11 significantly different subgroups at the .05 level, in both conditions. The scenarios were perceived as realistic ($M_{\text{rejection}}$ = 5.18; $M_{\text{acceptance}}$ = 5.55).

Hypotheses Testing

Hypotheses 1 and 2 are tested as in Study 1. Again, VIF values below 10 indicate that multicollinearity is not an issue. Table 3 displays the regressions in both conditions; Figure 2 depicts the curve's progressions in Panels C and D.

Hypothesis 1. For service rejection, the cubic model explains the most variance (adjusted R^2 = .678) and indicates a significant increase in R^2 (ΔR^2 = .027; F = 51.396, $p < .001$) compared with the quadratic model. Thus, the S-shaped curve progression model is the most accurate, supporting Hypothesis 1. The estimated curve in Figure 2 (Panel C) is characterized by three points: minimal satisfaction at 0% compensation (S_{min} = 1.9), an inflection point at 84% compensation (S_{infl} = 6.2), and maximal satisfaction at 168% compensation (S_{max} = 10.4).

Hypothesis 2. For service acceptance, the quadratic model accounts for the largest proportion of variance (adjusted R^2 = .348), and it differs significantly from the linear model (ΔR^2 = .024; F = 22.781, $p < .001$). The cubic model does not explain more variance than the quadratic model and there is no significant increase in R^2 (ΔR^2 = .000; F = .462, p < .497) when adding the cubic term (b_3 = .003, $p < .497$). The relevant regression coefficients in the quadratic model (b_1 and b_2) are significant at the .001 level, and the negative sign of the quadratic term ($b_2 = -.065$) indicates that the curve progression for service acceptance is completely concave, supporting Hypothesis 2. The estimated curve in Figure 2 (Panel D) indicates that minimal satisfaction is achieved at 0% compensation (S_{min} = 2.1), the greatest increase in satisfaction occurs with

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

Table 3. Hierarchical Regression Results (Study 2).

	Service Rejection		Service Acceptance	
Model	Quadratic	Cubic	Quadratic	Cubic
Constant	7.410***	7.429***	6.842***	6.840***
Failure severity	−.292***	−.275***	−.368***	−.365***
External attribution	−.072	−.064	−.274**	−.275**
Complaint experience	−.093	−.088	−.124	−.125
Income	−.068	−.029	−.261	−.266
Compensation level (linear)	.944***	1.444***	.622***	.561***
Compensation level (squared)	−.067***	−.071***	−.065***	−.064***
Compensation level (cubed)	—	−.028***	—	.003
R^2	.655	.682	.355	.355
Adjusted R^2	.652	.678	.348	.348
F-value	193.228***	186.650***	55.849***	47.894***
ΔR^2	—	.027	—	.000
ΔF-value	—	51.396***	—	.462

Note. Unstandardized regression coefficients. *p < .05, **p < .01, ***p < .001 (two-tailed).

the first levels in compensation, and maximal satisfaction ($S_{max} = 8.3$) is obtained at 196% compensation.

Saturation effects. Based on the estimated curves, satisfaction seems to slightly decrease at 168% for service rejection (Figure 2, Panel C) and at 196% for acceptance (Panel D). Again, we plotted the actual data points and used a Duncan's post hoc test to compare the observed satisfaction means for high levels of overcompensation in both conditions (rejection: $M_{140\%} = 9.4$; $M_{160\%} = 9.7$; $M_{180\%} = 10.1$; $M_{200\%} = 10.1$; $p > .05$; acceptance: $M_{140\%} = 7.7$; $M_{160\%} = 8.1$; $M_{180\%} = 8.5$; $M_{200\%} = 8.3$; $p > .05$). In both conditions, all the values were equivalent. Hence, both curves seem to be characterized by saturation, as expected, rather than a negative effect.

Potential confounds. Of the control variables, prior complaint experience and income are nonsignificant in both conditions, but failure severity (in both conditions) and external attribution (only in the service acceptance condition) exert significant negative effects on satisfaction. Further, the level of these two significant variables varies across conditions (failure severity: $M_{rejection} = 4.60$ vs. $M_{acceptance} = 5.70$; external attribution: $M_{rejection} = 3.81$ vs. $M_{acceptance} = 6.12$). These two variations might be a by-product of the condition "perceived substitutability." Customers who perceive a flawed service as easy to replace may consider the flaw as less severe and attribute it to the firm to a lesser extent—as is the case with the jacket, but not with the room in a fully booked hotel.

In order to account for these potential confounds, we conducted additional regression analyses, in which we examined how failure attribution and severity interacted with compensation. Specifically, we examined whether the interactions with these two controls and the highest order compensation term (i.e., cubic for rejection and quadratic for acceptance) would reach significance (Cohen et al. 2003). For service acceptance, the quadratic by linear interactions involving failure severity ($b^2_{severity \times compensation} = .004$; $p < .683$) and external attribution ($b^2_{attribution \times compensation} = .001$; $p < .948$) did not reach significance. For service rejection, the cubic by linear interaction term was nonsignificant for external attribution ($b^3_{attribution \times compensation} = -.002$; $p < .411$), but significant for failure severity ($b^3_{severity \times compensation} = -.005$; $p < .034$). In sum, only one interaction of the four possibilities achieves significance.

In order to understand the meaning of the significant interaction, we examined the curve progressions across three different levels of failure severity (low, moderate, and high) for the rejection scenario. This analysis reveals that the S-shape, though more or less pronounced across failure severity levels, is persistent (see Online Appendix). Based on these results, failure severity—though it exerts a moderating effect in the rejection condition—does not invalidate Hypothesis 1, which argues for an S-shaped function in the context of service rejection.

Discussion of Study 2

Building on two different scenarios associated with different conditions, Study 2 largely replicates the findings of Study 1: an S-shaped (concave) curve progression for service rejection (acceptance). Further, the results for service rejection show that minimum and maximum satisfaction are reached at similar compensation levels as in Study 1 (0% and 168%). Likewise, the inflection point (84%) is below 100% compensation. For service acceptance, we also identify similar minimum (0%) and maximum (196%) compensation levels as in Study 1. Yet, the shape of this curve progression is less concave than in our first study. Further, we observe a lower maximum satisfaction (8.3) and a lower variance explained (34.8%), which will be discussed in the next section. Finally, as in Study 1, we note saturation effects in both contexts, when extreme overcompensation is offered.

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

Theoretical Implications

Applying the S-D Logic to Flawed Services

To the best of our knowledge, it is the first time that the S-D logic (Vargo and Lusch 2004; Vargo, Maglio, and Akaka 2008) is used to explain customers' responses to flawed services. We argue that customers may choose among service rejection and acceptance as two failure handling tactics, whose likelihood depends on three key conditions (substitutability, duration of use, and inconveniences). Overall, we show that service rejection, compared to service acceptance, is marked by lower uncertainty about the appropriate compensation and almost no value-in-use. So, we posit that customers use the initial price as a reference point for the expected compensation for service rejection, whereas we argue for the absence of a reference point for service acceptance. This general logic constitutes the theoretical background for two different curve progressions.

S-Shaped Curve for Service Rejection

For service rejection, the functional structure is first convex and then concave—in line with prospect theory, which explains that gains or losses are determined based on a reference point (Kahneman and Tversky 1979). This reference point is located at 68% in Study 1 and 84% in Study 2 (estimated curve). They are associated with the highest increase in satisfaction, whereas the return in satisfaction is much reduced for lower partial compensation or overcompensation.

Two issues deserve special attention. First, the inflection points in both studies lie below 100%. Customers may feel they do not deserve a full refund because they decide to reject the service on their own. However, the curves in Figure 2 (Panels A and C) remain steep around the inflections points. The observed means indicate that the curve is especially steep from 80% to 100% in Study 1 and 60% to 120% in Study 2. Hence, the optimal compensation, though below 100% based on the estimated curve, may actually represent an interval between 60% and 120% compensation. Third, based on the estimated curve, satisfaction ceases to increase at about 170% compensation (Study 1: 10.2, Study 2: 10.4). The observed means even suggest that saturation may be reached earlier, at about 140% compensation. Hence, high overcompensation seems somewhat ineffective when customers reject a flawed service.

Concave Curve for Service Acceptance

For service acceptance, the curve is mainly concave in both studies, reflecting the law of marginal diminishing utility. Small compensation exerts the strongest incremental effect on satisfaction (see Figure 2, Panels B and D). Compensation pays off starting with the first dollar, and it provides the best return between 0% and 20%. Partial compensation provides much higher satisfaction returns, compared to rejection. At high compensation levels, additional remuneration only has a marginal effect on satisfaction, which reaches its maximum at the upper end of overcompensation (Study 1: 200%; Study 2: 196%).

Our research yields two interesting differences for service acceptance across studies. First, the curve in Study 1 is more concave than that in Study 2. It is steeper at the beginning, reaches saturation earlier, and then basically remains flat up to 200%. Second, maximal satisfaction is greater in Study 1 (10.2) than in Study 2 (8.3). This second finding aligns with the level of variance explained (Study 1: 52.4%; Study 2: 34.8%). These differences may be explained by the two different service industries, which serve different purposes according to Maslow's (1943) hierarchy of needs. A hotel stay fulfills a basic need (security by providing shelter), whereas a musical performance fulfills a higher order need (self-actualization through entertainment). Presumably, money is more appropriate to compensate for the lack of a higher order need than for the lack of a basic need. As a result, monetary compensation may be more effective for musicals (Study 1) compared to hotels (Study 2).

Upstream and Downstream Consumer Reactions

Consistent with prior research (Gelbrich and Roschk 2011a), we confirm that distributive justice (as an upstream judgment) is a mediator in the "compensation → satisfaction" path. These results support that distributive justice is the theoretical anchor for the general positive effect of compensation on satisfaction. The S-shaped and concave curves also apply to repurchase intention, although the variance explained is lower. Hence, our predictions hold for a downstream customer response that is more closely linked to firms' profitability. These findings are consistent with Grewal, Roggeveen, and Tsiros (2008) who show a significant effect of compensation on repurchase intention if the firm is responsible for the flawed service.

Managerial Implications

Recovery Process

It is well established that the recovery process for a flawed service should combine monetary compensation with procedural and interactional measures (e.g., Wirtz and Mattila 2004). We suggest a four-step approach that should vary for service rejection versus acceptance, especially for the compensation amount.

As a first step, service organizations should show empathy and care for customers in order to acknowledge their distress (McColl-Kennedy, Daus, and Sparks 2003). This holds particularly true for service acceptance, when customers actually use the flawed service and bear the resulting inconveniences. Second, firms should apologize for the flaw (Smith, Bolton, and Wagner 1999), which may be equally important for service rejection and acceptance. In both cases, customers did not receive the promised and expected service. As a third step, service providers should try to fix the problem as well as possible, by offering a substitute service (Chung-Herrera, Gonzalez, and Hoffman 2010). Such a problem solution seems to be

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

particularly important for service rejection, which should be more likely when the service is perceived as replaceable. Fourth, compensation should be offered in both cases because this action has been identified as the most powerful recovery effort available to firms (Gelbrich and Roschk 2011a). However and as highlighted in this research, the optimal compensation level should differ based on the failure-handling tactic.

Optimal Compensation

Our recommendations for service rejection are clear. Compensation worth 70%–80% of the loss appears optimal; we observe the greatest satisfaction increase at these points. However, three aspects of these results need special consideration.

First, these two points are determined based on estimated functions, which may not perfectly capture the reality. In practice, we believe that most customers would expect 100% compensation if they do not actually use the service. Second, the absolute satisfaction level achieved for these two points (Study 1: 5.3; Study 2: 6.2) can be qualified as moderate, at best. As the curves remain steep until the 120% point, compensation up to this amount may be worthwhile. This compensation level would effectively raise satisfaction to a level of almost 9 points on an 11-point scale. Third, if firms aim to maximize satisfaction regardless of its costs, they could provide until 170% compensation. This level of investment is not the most efficient though; the growth curve is characterized by diminished returns at this stage. However, firms should be careful not to invest beyond this mark (170%), from which a clear saturation effect is achieved.

For service acceptance, small compensation amounts are particularly effective at raising satisfaction; full compensation and overcompensation provide much weaker satisfaction returns. As a general recommendation, service providers should provide partial compensation, as a gesture of good will, combined with the other recovery efforts mentioned for the Steps 1–3.

Limitations and Future Research

This research possesses limitations that offer avenues for future research. First, the estimated curves show unexpected patterns for extreme overcompensation: negative returns for service rejection in both studies and for service acceptance in Study 2 and a positive return for service acceptance in Study 1. As the observed means seem to indicate saturation, we suggest collecting additional data for extreme values to better understand this pattern (Cohen et al. 2003). Such research could confirm a saturation effect or may find a true negative effect.

Second, we used compensation in the form of a credit that can only be redeemed at the same provider. Some customers may prefer a lower cash refund to higher credit, which would allow them to choose another provider, or simply keep the money. Further, prior studies show that other recovery efforts like promptness (Goudarzi, Borges, and Chebat 2013) and recovery type (Zhou et al. 2013) interact with compensation. Future research could examine whether these recovery efforts moderate the curvilinear relationship identified in the present studies.

Third, the current research manipulates the failure-handling tactic based on the three mentioned conditions (substitutability, duration of use, and inconveniences). Although we discuss these conditions, we did not formally test for their effects in this research. So, we invite future research to empirically examine these conditions and other antecedents that could affect the likelihood to opt for a rejection versus an acceptance tactic. In addition, future research could pay attention to other variables, such as the perceived social visibility of service usage (Kulviwat, Bruner, and Al-Shuridah 2009). This variable relates to whether service usage takes place in a public (e.g., wearing a jacket) or in a private setting (e.g., sleeping in a hotel room), and it is likely to affect the chosen failure handling tactic.

Finally, future research could examine whether other variables moderate the compensation-satisfaction path. For example, a long duration of use could require higher remuneration in the case of service acceptance. Likewise, a priori value-in-use may also moderate this relationship. In accordance with the S-D logic literature (Vargo, Maglio, and Akaka 2008), our study posits that value is derived ''in use'' only. However, more recent S-D literature argues for a possible a priori value-in-use. It occurs if customers derive a benefit prior to the actual co-creation with the firm (Heinonen et al. 2010), such as pleasant anticipation or benefit from lower prices for early booking.

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

Appendix

Measurements

Construct and Items		*M*	*SD*	AVE	CR
Dependent variables					
Value-in-use[a]	*Study 1*	1.65	1.17	—	—
(1 = *no value/not benefit*; 7 = *full value/fully benefit*)		[3.40]	[.93]		
For the customer, the service has . . .	*Study 2*	1.58	.80	—	—
The customer do . . . from the performance		[2.08]	[1.03]		
Uncertainty about the expected compensation[a]	*Study 1*	2.27	1.46	—	—
(1 = *strongly disagree*; 7 = *strongly agree*)		[3.33]	[2.04]		
It is unclear to me what compensation amount I can expect	*Study 2*	2.23	1.68	—	—
		[3.22]	[1.78]		
Postcomplaint satisfaction	*Study 1*	6.64	4.18	.96	.99
(1 = *strongly disagree*; 11 = *strongly agree*)		[7.99]	[3.64]	[.95]	[.98]
I would be very satisfied with the complaint handling of the company	*Study 2*	6.75	4.02	.94	.98
In my opinion, the company provided a satisfactory resolution to the problem on this particular occasion		[6.20]	[3.66]	[.92]	[.97]
Regarding this particular event, I am satisfied with the company's response to the problem					
Control variables					
External attribution	*Study 1*	6.16	1.20	.63	.84
(1 = *strongly disagree*; 7 = *strongly agree*)		[6.13]	[1.02]	[.46][b]	[.71]
The reason for the failure is something the company had control over	*Study 2*	3.81	1.80	.63	.84
To prevent this failure, there are actions the company could take but has not		[6.12]	[1.24]	[.40][b]	[.66]
The company was responsible for the failure					
Failure severity	*Study 1*	5.92	1.50	—	—
(1 = *minor*; 7 = *major*)		[5.90]	[1.47]		
The failure is . . .	*Study 2*	4.60	1.85	—	—
		[5.70]	[1.48]		
Prior complaint experience	*Study 1*	4.23	1.71	—	—
(1 = *strongly disagree*; 7 = *strongly agree*)		[3.93]	[1.78]		
In the past, I have often complained directly to companies	*Study 2*	3.88	1.87	—	—
		[3.88]	[1.87]		
Income	*Study 1*	.48	.50	—	—
(1 = *0–499€*; 2 = *500–999€*; 3 = *1,000–1,999€*;		[.50]	[.50]		
4 = *2,000–2,999€*; 5 = *3,000–3,999€*; 6 = *4,000–4,999€*; 7 = *>4,999€*)[c]	*Study 2*	.50	.50	—	—
What is the net monthly income of your household?		[.50]	[.50]		
Prior experience with the service[a]	*Study 1*	12.00	18.19	—	—
How many times did you use this service in the past?		[8.97]	[10.28]		
	Study 2	11.10	27.95	—	—
		[62.33]	[67.53]		
Upstream and downstream customer reactions					
Distributive justice	*Study 1*	7.28	3.94	—	—
(1 = *strongly disagree*; 11 = *strongly agree*)		[8.30]	[3.47]		
Given the circumstances, I feel that the company offered adequate compensation					
The outcome the customer received was fair					
Repurchase intention	*Study 1*	5.77	3.68	—	—
(1 = *strongly disagree*; 11 = *strongly agree*)		[7.00]	[3.64]		
In the future, I intend to visit this theater					
Manipulation checks					
Failure-handling tactic (rejection/acceptance)[a) d)]	*Study 1*	.03	.18	—	—
Peter and Susan decided not to watch vs. to watch the performance		[1.00]	[.00]		
	Study 2	.08	.27	—	—
		[.97]	[.17]		
Peter and Susan decided to cancel vs. continue their visit to the theater	*Study 1*	.03	.18	—	—
		[1.00]	[.00]		
	Study 2	.05	.22	—	—
		[.97]	[.17]		

(continued)

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

Appendix. (continued)

Construct and Items		*M*	*SD*	AVE	CR
Compensation level	*Study 1*	5.61	3.25	—	—
(1 = *0* €, 2 = *20* €, 3 = *40* €, 4 = *60* €, 5 = *80* €,		[5.76]	[3.19]		
6 = *100* €, 7 = *120* €, 8 = *140* €, 9 = *160* €,	*Study 2*	5.72	3.22	—	—
10 = *180* €, 11 = *200* €)		[5.72]	[3.22]		
Overall, how much compensation did the customer receive?					
Realism and credibility checks					
(1 = *strongly disagree*; 7 = *strongly agree*)					
I believe that such incidents are likely to happen in real life	*Study 1*	5.18	1.70	—	—
		[5.42]	[1.66]		
	Study 2	5.75	1.62	—	—
		[6.04]	[1.24]		
I think the description of the situation is very realistic	*Study 1*	5.17	1.67	—	—
		[5.41]	[1.64]		
	Study 2	5.18	1.88	—	—
		[5.55]	[1.48]		
I was able to adopt the role of Susan and Peter	*Study 1*	5.91	1.36	—	—
		[6.11]	[1.22]		
As a portrayal of a musical visit, this video is believable	*Study 1*	5.66	1.37	—	—
		[6.00]	[1.23]		

Note. *M* = Mean; *SD* = Standard deviation; AVE = average variance extracted; CR = composite reliability. The values are indicated for service rejection [in squared brackets for service acceptance]. For reasons of simplicity, the table provides generalized item wordings across studies and scenarios.

[a]Constructs are measured in the Pilot Study (musical context) and in the preliminary study (jacket/hotel context).

[b]Although the AVE was below the recommended threshold of .5 in the acceptance condition in Study 1 and 2, we retained all the items of the scale for the sake of conceptual comprehensiveness.

[c]Included in the regression analysis as a dichotomous variable (0 = *low*, 1 = *high*).

[d]The corresponding items in Study 2 are as follows: He decided not to wear the jacket anymore vs. to wear the jacket. He decided not to put on the jacket anymore vs. to further put on the jacket (rejection condition). He decided not to stay versus to stay overnight at the hotel. He decided not to spend versus to spend the night at the hotel (acceptance condition).

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Notes

1. Service rejection should not be confused with product or service returns (Bower and Maxham 2012), which encompass both *flawless* products/services (i.e., customers have changed their mind and take advantage of a return policy) and *flawed* products/services (i.e., send back defective or poor quality products). In our research, service rejection only refers to the latter category.
2. A third postulate refers to the different slope intensity of the gain and loss curves. We do not build on this assumption because it seems less relevant, given that the purpose of our research is to identify the steepest point of the curve and the level of compensation that leads to the sharpest increase in satisfaction.
3. We chose a musical context because people are familiar with this service in Germany, where the studies were conducted. Of the total participants, 93.3% reported at least one prior visit to a musical or theater performance, and the average was 10.5 visits.
4. For example, the participants may perceive a high *substitutability* if they believe the couple can see the performance—with better seats—on another night (rejection more likely). In contrast, the participants will perceive a low substitutability if they believe this evening is the couple's only opportunity to see the performance (acceptance more likely). The perceived *duration* of use may be long if the participants perceive the performance as a considerable time period (rejection more likely), but short if they perceive it as a short moment of "suffering" (acceptance more likely). The perceived *inconveniences* may be high if subjects feel the blocked view and worn seats are unbearable (rejection more likely), but low if they perceive these conditions as tolerable (acceptance more likely).
5. Pretests suggested adding the notion of washing the jacket after a few days to increase realism. Although this notion could increase value-in-use prior to rejection, this value is negligible, given the long life span of a jacket.
6. The only exception was metric invariance for gender in the hotel scenario. In this case, we accounted for partial invariance by leaving the factor loadings of the critical item unconstrained (Steenkamp and Baumgartner 1998).
7. To test our assumptions, we captured value-in-use and uncertainty about compensation, using the same measures as in the Pilot Study (see Appendix). Two analyses of variance reveal that, consistent with our logic, service rejection is associated with less value-in-use ($M_{\text{rejection}} = 1.58 < M_{\text{acceptance}} = 2.08$); $F(1,75) = 5.743$; $p < .019$; effect size $r = .338$, and less uncertainty in the compensation expectations ($M_{\text{rejection}} = 2.23 < M_{\text{acceptance}} = 3.22$); $F(1, 75) = 6.186$; $p < .015$; effect size $r = .350$, compared to service acceptance.

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

Supplementary Material

The online appendix is available at http://jsr.sagepub.com/supplemental

References

Baker, Julie, A. Parasuraman, Dhruv Grewal, and Glenn B. Voss (2002), "The Influence of Multiple Store Environment Cues on Perceived Merchandise Value and Patronage Intentions," *Journal of Marketing*, 66 (April), 120-141.

Bateson, John E. G. and Michael K. Hui (1992), "Ecological Validity of Photographic Slides and Videotapes in Simulating the Service Setting," *Journal of Consumer Research*, 19 (September), 271-281.

Blodgett, Jeffrey G., Donna J. Hill, and Stephen S. Tax (1997), "The Effects of Distributive, Procedural, and Interactional Justice on Postcomplaint Behavior," *Journal of Retailing*, 73 (Summer), 185-210.

Bower, Amanda B. and James G. Maxham III (2012), "Return Shipping Policies of Online Retailers: Normative Assumptions and the Long-Term Consequences of Fee and Free Returns," *Journal of Marketing*, 76 (September), 110-124.

Chen, Rachel R., Eitan Gerstner, and Yinghui Yang (2012), "Customer Bill of Rights Under No-Fault Service Failure: Confinement and Compensation," *Marketing Science*, 31 (January-February), 157-171.

Chung-Herrera, Beth G., Gabriel R. Gonzalez, and K. Douglas Hoffman (2010), "When Demographic Differences Exist: An Analysis of Service Failure and Recovery among Diverse Participants," *Journal of Services Marketing*, 24 (2) 128-141.

Cohen, Jacob, Patricia Cohen, Stephen G. West, and Leona S. Aiken (2003), *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences*, 3rd ed. Mahwah, NJ: Lawrence Erlbaum.

Davidow, Moshe (2003), "Organizational Responses to Customer Complaints: What Works and What Doesn't," *Journal of Service Research*, 5 (February), 225-250.

Fang, Zheng, Xueming Luo, and Minghua Jiang (2013), "Quantifying the Dynamic Effects of Service Recovery on Customer Satisfaction: Evidence from Chinese Mobile Phone Markets," *Journal of Service Research*, 16 (August), 341-355.

Folkes, Valerie S., Susan Koletsky, and John L. Graham (1987), "A Field Study of Causal Inferences and Consumer Reaction: The View from the Airport," *Journal of Consumer Research*, 13 (March), 534-539.

Fornell, Claes and David F. Larcker (1981), "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, 18 (February), 39-50.

Gelbrich, Katja and Holger Roschk (2011a), "A Meta-Analysis of Organizational Complaint Handling and Customer Responses," *Journal of Service Research*, 14 (February), 24-43.

Gelbrich, Katja and Holger Roschk (2011b), "Do Complainants Appreciate Overcompensation? A Meta-Analysis on the Effect of Simple Compensation vs. Overcompensation on Post-Complaint Satisfaction," *Marketing Letters*, 22 (March), 31-47.

Goudarzi, Kiane, Adilson Borges, and Jean Charles Chebat (2013), "Should Retailers Pay to Bring Customers Back? The Impact of Quick Response and Coupons on Purchase Outcomes," *Journal of Business Research*, 6 (May), 665-669.

Grabner-Kraeuter, Sonja and Martin Waiguny (2011), "Why Users Stay in Online Social Networks: Perceptions of Value, Trust, Subjective Norm, and the Moderating Influence of Duration of Use," *in Proceedings of the 11th AMA Winter Educators Conference*, Vol. 22, Raji Srinivasan and Leigh McAlister, eds. Austin, TX, 240-249.

Grewal, Dhruv, Anne L. Roggeveen, and Michael Tsiros (2008), "The Effect of Compensation on Repurchase Intentions in Service Recovery," *Journal of Retailing*, 84 (December), 424-434.

Grönroos, Christian (2008): "Service Logic Revisited: Who Creates Value? And Who Co-creates?" *European Business Review*, 20 (4), 298-314.

Hair, Joseph F., Wiliam C. Black, Barry J. Babin, and Rolph, E. Anderson (2010), *Multivariate Data Analysis: A Global Perspective*, 7th ed. London, England: Pearson.

Heinonen, Kristina, Tore Strandvik, Karl-Jacob Mickelsson, Bo Edvardsson, Erik Sundström, and Per Andersson, (2010): "A Customer-Dominant Logic of Service," *Journal of Service Management*, 21 (4), 531-548.

Hess, Ronald L., Jr., Shankar Ganesan, and Noreen M. Klein (2003), "Service Failure and Recovery: The Impact of Relationship Factors on Customer Satisfaction," *Journal of the Academy of Marketing Science*, 31 (April), 127-145.

Homans, George C. (1974), *Social Behavior: Its Elementary Forms*. (Rev. ed.) New York, NY: Harcourt Brace Jovanovich.

Homburg, Christian, Nicole Koschate, and Wayne D. Hoyer (2005), "Do Satisfied Customers Really Pay More? A Study of the Relationship between Customer Satisfaction and Willingness to Pay," *Journal of Marketing*, 69 (April), 84-96.

Iacobucci, Dawn, Neela Saldanha, and Xiaoyan Deng (2007), "A Mediation on Mediation: Evidence That Structural Equations Models Perform Better Than Regressions," *Journal of Consumer Psychology*, 17 (April), 140-154.

Janssen, Onne (2001), "Fairness Perceptions as a Moderator in the Curvilinear Relationships between Job Demands, and Job Performance and Job Satisfaction," *The Academy of Management Journal*, 44 (October), 1039-1050.

Jin, LiYin (2010), "Determinants of Customers' Complaint: Empirical Study in the Context of China's Retail Industry," *Nankai Business Review International*, 1 (1), 87-99.

Jolink, Albert and Jan van Daal (1998), "Gossen's Laws," *History of Political Economy*, 30 (Spring), 43-50.

Kahneman, Daniel and Amos Tversky (1979), "Prospect Theory: An Analysis of Decision under Risk," *Econometrica*, 47 (March), 263-291.

Kulviwat, Songpol, Gordon C. Bruner II, and Obaid Al-Shuridah (2009), "The Role of Social Influence on Adoption of High Tech Innovations: The Moderating Effect of Public/Private Consumption," *Journal of Business Research*, 62 (July), 706-712.

Lemke, Fred, Moira Clark, and Hugh Wilson (2011), "Customer Experience Quality: An Exploration in Business and Consumer Contexts Using Repertory Grid Technique," *Journal of the Academy of Marketing Science*, 39 (December), 846-869.

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014

Maslow, Abraham H. (1943), "A Theory of Human Motivation," *Psychological Review*, 50 (July), 370-396.

Maxham, James G., III. and Richard G. Netemeyer (2002), "Modeling Customer Perceptions of Complaint Handling over Time: The Effects of Perceived Justice on Satisfaction and Intent," *Journal of Retailing*, 78 (4), 239-252.

McColl-Kennedy, Janet R., Catherine S. Daus, and Beverley A. Sparks (2003), "The Role of Gender in Reactions to Service Failure and Recovery," *Journal of Service Research*, 6 (August), 66-82.

Perdue, Barbara C. and John O. Summers (1986): "Checking the Success of Manipulations in Marketing Experiments," *Journal of Marketing Research*, 23 (4), 317-326.

Preacher, Kristopher J. and Andrew F. Hayes (2004), "SPSS and SAS Procedures for Estimating Indirect Effects in Simple Mediation Models," *Behavior Research Methods, Instruments, and Computers*, 36 (November), 717-731.

Preacher, Kristopher J. and Andrew F. Hayes (2008), "Asymptotic and Resampling Strategies for Assessing and Comparing Indirect Effects in Multiple Mediator Models," *Behavior Research Methods*, 40 (August), 879-891.

Reflectionofdarkness.com (2012), "Live Review: Ozzy Osbourne & Friends—Dortmund 2012," (accessed November 18, 2013), [available at http://www.reflectionsofdarkness.com/artists-k-o-concertreviews-157/11574-live-review-ozzy-osbourne-a-friends-dortmund-2012.html].

Roggeveen, Anne L., Michael Tsiros, and Dhruv Grewal (2012), "Understanding the Co-Creation Effect: When Does Collaborating with Customers Provide a Lift to Service Recovery?," *Journal of the Academy of Marketing Science*, 40 (November), 771-790.

Smith, Amy K., Ruth N. Bolton, and Janet Wagner (1999), "A Model of Customer Satisfaction with Service Encounters Involving Failure and Recovery," *Journal of Marketing Research*, 36 (August), 356-372.

Steenkamp, Jan-Benedict E. M. and Hans Baumgartner (1998), "Assessing Measurement Invariance in Cross-National Consumer Research," *Journal of Consumer Research*, 25 (June), 78-107.

Szymanski, David M. and David H. Henard (2001), "Customer Satisfaction: A Meta-Analysis of the Empirical Evidence," *Journal of the Academy of Marketing Science*, 29 (January), 16-35.

Tripadvisor.com (2007), "So disgusting i couldn't stay," (accessed November 18, 2013), [available at http://www.tripadvisor.com.my/ShowUserReviews-g186487-d226398-r8247432-Travelodge_Aberdeen_Central-Aberdeen_Aberdeenshire_Scotland.html].

Vandenberg, Robert J. and Charles E. Lance (2000) "A Review and Synthesis of the Measurement Invariance Literature: Suggestions, Practices, and Recommendations for Organizational Research," *Organizational Research Methods*, 3 (January), 4-70.

Vargo, Stephen L. and Robert F. Lusch (2004): "Evolving to a New Dominant Logic for Marketing," *Journal of Marketing*, 68 (January), 1-17.

Vargo, Stephen L. and Robert F. Lusch (2008): "Service-Dominant Logic: Continuing the Evolution," *Journal of the Academy of Marketing Science*, 36 (March), 1-10.

Vargo, Stephen L., Paul P. Maglio, and Melissa A. Akaka (2008), "On Value and Value Co-Creation: A Service Systems and Service Logic Perspective," *European Management Journal*, 26 (June), 145-152.

Victorino, Liana, Rohit Verma, Bryan L. Bonner, and Don G. Wardell (2012), "Can Customers Detect Script Usage in Service Encounters? An Experimental Video Analysis," *Journal of Service Research*, 15 (November), 390-400.

Williams, Larry J., Nathan Hartman, and Flavia Cavazotte (2010), "Method Variance and Marker Variables: A Review and Comprehensive CFA Marker Technique," *Organizational Research Methods*, 13 (July), 477-514.

Wirtz, Jochen and Anna S. Mattila (2004), "Consumer Responses to Compensation, Speed of Recovery and Apology after a Service Failure," *International Journal of Service Industry Management*, 15 (2), 150-166.

Wirtz, Jochen and Janet R. McColl-Kennedy (2010), "Opportunistic Customer Claiming during Service Recovery," *Journal of the Academy of Marketing Science*, 38 (October), 654-675.

Zhao, Xinshu, John G. Lynch, Jr., and Qimei Chen (2010), "Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis," *Journal of Consumer Research*, 37 (August), 197-206.

Zhou, Yuanyuan, Minxue Huang, Alex S. L. Tsang, and Nan Zhou (2013), "Recovery Strategy for Group Service Failures," *European Journal of Marketing*, 47 (8), 1133-1156.

Author Biographies

Katja Gelbrich (PhD in Business Administration, University of Stuttgart) is a full professor of International Management at Catholic University Eichstaett–Ingolstadt. Major fields of research are service recovery, international management, and cross-cultural marketing. She has published articles in the *Journal of the Academy of Marketing Science*, *Journal of Service Research, Journal of Retailing, Marketing Letters*, *Schmalenbach Business Review*, *Journal of Retailing and Consumer Services*, and *Journal of Services Marketing*.

Jana Gäthke (PhD in Business Administration, Catholic University Eichstaett–Ingolstadt) is a postdoc candidate at Catholic University Eichstaett–Ingolstadt. Her research focuses on service recovery and cross-cultural marketing. She has published in the *Journal of Retailing and Consumer Services* and presented papers at the European Marketing Academy Conference and Australian and New Zealand Marketing Academy Conference.

Yany Grégoire is an associate professor of Marketing at HEC Montréal. Since 2014, he is the holder of the Chair on Service Marketing and Customer Experience at the same institution. He has extensively published on the issues of customer revenge, online public complaining, and service failure recovery. His research has been published in leading academic journals, including *Journal of Marketing*, *Journal of the Academy of Marketing Science*, *Journal of Retailing*, *Journal of Consumer Psychology*, and *Journal of Service Research*, among others. His work is also regularly presented in top consumer, marketing, and management conferences.

Downloaded from jsr.sagepub.com at UNIVERSITE DE MONTREAL on July 25, 2014