How a firm’s best versus normal customers react to compensation after a service failure

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1. Introduction

Building strong customer relationships is a cornerstone of marketing because such relationships improve profitability for firms (De Wulf, Odekerken-Schröder, & Iacobucci, 2001; Kaltcheva, Winsor, & Parasurman, 2013). When a service failure occurs, relationship management becomes crucial as managers need to know how much compensation they should offer to their best vs. normal customers. Should they provide the same or more compensation to their best customers? This question is important because a meta-analysis indicates compensation as the most effective recovery action (Gelbrich & Roschk, 2011a).

In their other meta-analysis, Gelbrich and Roschk (2011b) reveal that not all compensation amounts are equally effective. Simple or partial compensation (less than 100% failure reparation) has a stronger effect on satisfaction than overcompensation (more than 100%), we argue that strong relationship customers.

So, the general purpose of the current paper is to answer this call, which has been raised, but not formally tested by Gelbrich and Roschk (2011b).

Echoing this call, prior research has suggested that compensation should be adapted to prior relationships (Ha & Jang, 2009; Worsfold, Worsfold, & Bradley, 2007). Unfortunately, the findings of this research stream are mixed and the evidence remains inconclusive. For some, prior relationship matters in the satisfaction formation (Worsfold et al., 2007; Study 1); for others, it does not (Mattila, 2001; Worsfold et al., 2007; Study 2). Hence, marketing theorists and practitioners still have a poor understanding of how weak and strong relationship customers respond to a wide range of compensation amounts. We believe that the absence of clear evidence may be explained by a somewhat arbitrary choice of a limited number of compensation amounts (e.g., 0% vs. 20%, or 100% vs. 150%), and a lack of clear distinction between transaction-specific and overall satisfaction. To address these issues, the current study draws comprehensive curve progressions between a wide number of compensation amounts (Studies 1 and 2 include eleven and five compensations amounts, respectively) and two satisfaction types (specific versus overall), for both weak and strong relationship customers.

Specifically, this research makes three contributions. After confirming that the effect of compensation on satisfaction is nonlinear and concave, we first propose and test that relationship quality—a popular concept that captures the strength of a relationship (De Wulf et al., 2001)—moderates this function in a predictable manner. When compensation is partial or low (less than 100%), we argue that weak and strong relationship customers display comparable satisfaction. In the context of overcompensation (more than 100%), we argue that strong relationship customers should respond more positively, compared to the weak
relationship group. In other words, the overall curve progression should be concave—especially for weak relationship customers, and this curve should start plateauing beyond 100% (see Fig. 1). Based on these curve progressions, we identify the optimal compensation for each group, which is the level of compensation that provides the best increase or return in satisfaction (Gelbrich & Roschk, 2011b).

Second, we draw on social exchange theory (SET) and the closely related notion of reciprocity (Blau, 1964; Emerson, 1976; Homans, 1961) to explain the underlying mechanism for the observed effects. Previous research on the role of relationship quality in service recovery has called for an investigation of SET and reciprocity in this field (Grégoire & Fisher, 2008). Building on relevant literature (e.g., Arnett, German, & Hunt, 2003; Gouldner, 1960; Kaltcheva et al., 2013), we define perceived reciprocity in a recovery context as customers' assessment of whether firms have met their obligations by repaying customers' costs that occurred through and before the service failure. These costs lead to losses that need to be repaid in the recovery process. Specifically, Smith, Bolton, and Wagner (1999) distinguish between two forms of losses: economic and social. All customers, regardless of their relationship, believe that firms have an obligation to reimburse the economic loss. Compensation between 0 and 100% refers to this obligation—both relationship groups should display the same satisfaction for this range. However, strong relationship customers believe that firms have higher compensating obligations given their past patronage. Based on this logic, overcompensation may serve to repay some of the social loss, which is only experienced by strong relationship customers. As a result, these individuals should display a greater satisfaction with compensation that provides the best increase or return in satisfaction (Gelbrich & Roschk, 2011b).

As our third contribution, we examine the differences and similarities in the predicted patterns for two types of satisfaction: transaction-specific (in Study 1) versus overall (in Study 2). On the one hand, because there is a strong positive correlation between transaction-specific and overall satisfaction (Homburg & Fürst, 2005), we expect that the proposed “compensation → satisfaction” pattern should generally hold true for both satisfaction types, for weak versus strong relationship customers. On the other hand, the predicted pattern could also present some differences because relationship quality relates differently to both satisfaction types (Gelbrich & Roschk, 2011b; Grégoire, Tripp, & Legoux, 2009). For instance, prior customer relationship should have a greater effect on overall satisfaction, compared to a specific judgment related to the most recent recovery. Understanding these relational differences and similarities are important for managers, who ultimately aim to create the strongest overall satisfaction for their best customers.

2. Theoretical background and hypotheses

2.1. Nonlinear recovery effect of compensation on satisfaction

Compensation is a tangible benefit that is offered in response to a complaint (Gelbrich & Roschk, 2011b), and may come in various forms, such as refunds or discounts on the next purchase (Del Río-Lanza, Vázquez-Casielles, & Díaz-Martín, 2009). Expressed as a loss percentage, remuneration levels can be classified into partial ($<100\%$), full ($=100\%$), and over ($>100\%$) compensation (Davidow, 2003). Firms provide compensation in order to repair a failure—that is, to redress customers’ grievance for a flawed service (Grewal, Roggeveen, & Tsiros, 2008). When customers see compensation as appropriate given their situations, they display favorable responses towards firms (Sparks & McColl-Kennedy, 2001). The key response of interest is satisfaction because it is an important success criterion in marketing (Szymanski & Henard, 2001).

Partial compensation has been found to have a greater incremental effect than overcompensation (Boshoff, 2012; Gelbrich & Roschk, 2011b; Hess, Ganesan, & Klein, 2003), suggesting a nonlinear, concave curve progression between compensation and satisfaction. This pattern can be explained by the law of diminishing returns, which states that the perceived value of consumption decreases with additional units (Jolink & van Daal, 1998). Adapted to our context, small compensation amounts exert the strongest effect on satisfaction because they immediately redress customers’ situations. As compensation increases, its incremental effect on satisfaction decreases. Overcompensation should exert a marginal effect because it represents remuneration beyond the initial failure and the 100% mark.

2.2. The roles of relationship quality and perceived reciprocity

In this section, we first define relationship quality because of its importance in this study. Building on SET, we then relate this concept to the norm of reciprocity. Next, we argue that the concave function between compensation and satisfaction is moderated by relationship quality (H1). We also explain the process at work by referring to the reciprocity norm (H2).

2.2.1. Relationship quality

A customer relationship relates to the bonds between customers and firms (Roberts, Varki, & Brodie, 2003). This notion has been conceptualized in different ways, such as rapport (Worsfold et al., 2007), relationship type (Mattila, 2001), or relationship quality (Grégoire et al., 2009). The current research builds on the popular notion of relationship quality, which has been defined as customers’ perceived strength of their relationships with firms (De Wulf et al., 2001). Rather than simply representing satisfaction with prior interactions, relationship quality is conceptualized as a second-order construct (Crosby, Evans, & Cowles, 1990), and the current research focuses on the first-order dimensions trust, commitment, and social benefits (Grégoire et al., 2009). Trust relates to customers’ confidence in the reliability of the firm; commitment indicates their desire to maintain the relationship with firms; and social benefits refer to customers’ perceptions of a one-to-one connection with the firm through personalized services (Garbarino & Johnson, 1999; Grégoire et al., 2009).

2.2.2. Social exchange theory (SET) and the norm of reciprocity

The notion of relationship quality has been previously linked to SET (Morgan & Hunt, 1994). Rooted in social psychology and SET explains the exchange and relationship between individuals (Blau, 1964; Emerson, 1976; Homans, 1961). This theory states that when engaging in an exchange, both parties are faced with costs and rewards. Costs refer to the negative consequences of the exchange, such as loss of time, effort or money; rewards represent the positive consequences
of the exchange, such as receiving services, money, or status (Emerson, 1976; Homans, 1961).

The exchange process in a relationship follows certain norms that guide individuals’ behavior. The norm most prominently discussed in business is reciprocity (Cronpanzo & Mitchell, 2005). According to this norm, individuals ought to react similarly to the way they perceived to be treated (Gouldner, 1960). In other words, when a party receives something positive from another (i.e., reward), he or she should feel obligated to return the favor by providing benefits. This mechanism is referred to as positive reciprocity. When a party experiences negative actions from another (i.e., costs), he or she should feel obligated to respond in a negative way by punishing the other party; this process is called negative reciprocity (Cronpanzo & Mitchell, 2005). Overall, each party should get what it deserves, which results in a process of give and take that should be as equivalent as possible (Kalcheva et al., 2013; Lee, Capella, Taylor, Luo, & Gabler, 2014). Perceived equivalence (i.e., the degree to which the reciprocity norm is fulfilled) then determines the satisfaction level of the parties involved (Blau, 1964).

Adapted to the current context, a service failure entails costs that result in losses for customers. In response, firms seek to make up for this loss by providing a reward, such as financial remuneration (Smith et al., 1999). In assessing this reward, customers are likely to rely on the reciprocity norm when making their satisfaction judgment (Blau, 1964). Accordingly, we define perceived reciprocity in a recovery context as the customers’ assessment of whether firms have met their obligations of repaying customers’ costs that occurred through and before the service failure. In virtue of this norm, customers should see firms as being obligated to compensate them for the loss caused by a service failure. Two forms of loss—economic vs. social (Smith et al., 1999)—can be repaid. First, a firm should feel obligated to repair the failure, which is to repay customers for their economic loss (i.e., the initial price). Second, a firm should feel obligated to repair a relationship, which has suffered due to the failure (Grégoire et al., 2009). Here, the firm aims to repay customers for their social loss, and the magnitude of this loss is conditioned by the level of prior relationship quality.

2.2.3. Hypotheses development

We posit that the concave curve between compensation and satisfaction varies as illustrated in Fig. 1. The degree of concavity should be less in the high—compared to the low—relationship quality condition. Specifically, we propose (in H1) a similar response to partial compensation, but a steeper slope in the overcompensation range for high relationship quality customers. We explain (in H2) that these effects occur because of the reciprocity norm and its two different purposes: 1) compensating the economic loss (both groups), and 2) repairing the social loss (only for the high relational group).

First, partial to full compensation is especially appropriate for the primary purpose to repair a service failure and its economic loss (Gelbrich & Roschk, 2011b). Based on the reciprocity norm, most customers typically perceive that the firm is obligated to compensate them for the economic loss they have experienced. Thus, as compensation below 100% does not completely make up for the economic loss, customers may feel disadvantaged in their relationships with firms. This disadvantage is likely to be seen as a form of negative reciprocity resulting in low satisfaction levels (Blau, 1964; Cronpanzo & Mitchell, 2005). The higher the compensation, the more customers should perceive firms move towards positive reciprocity, which should result in an incremental increase in satisfaction up to 100%. A prior relationship should have little influence on this reciprocity belief in the simple compensation range; the economic loss is the same for high and low relationship quality customers. For compensation between 0 and 100%, satisfaction should increase steadily for all customers, regardless of their relationship status.

In the overcompensation range (100–200%), we posit that high relationship quality customers display more satisfaction (compared to the other group), such that the concave curve flattens less rapidly for this segment. We argue that the norm of reciprocity operates differently for both relational groups when overcompensation is offered. Overcompensation represents a reward because it covers more than customers’ economic loss; here the norm of positive reciprocity applies (Cronpanzo & Mitchell, 2005). High relationship quality customers respond more favorably because they feel that firms’ obligations go beyond the compensation for an economic loss. For these customers, the reciprocity norm also entails a social dimension. High relationship quality customers have shown loyalty towards firms (Grégoire et al., 2009), and they should perceive generous compensation as a more balanced reciprocity in a way that both economic and social costs are repaid. Based on this logic, high relationship quality customers should show a fairly steady increase in satisfaction beyond the 100% compensation threshold (which should not be the case for the low relational group).

In contrast, low relationship customers have not established strong bonds with the firm. Therefore, the norm of reciprocity is more restrictive, and it mainly requires repaying the economic loss, and not for a damaged relationship. As this purpose is served by full compensation, overcompensation may only produce diminishing returns for this group. SET research highlights the occurrence of diminishing returns when rewards are disproportionately high (Emerson, 1976). So, we argue that low relationship quality customers are less satisfied with overcompensation (compared to the high relational group). Overall, we derive two key hypotheses from this logic. H1 is about the moderation effect of relationship quality, whereas H2 formalizes the mediating role played by perceived reciprocity.

Hypothesis 1: Relationship quality moderates the concave relationship between compensation and satisfaction, such that:

a) The degree of concavity in the curve progression is lower for the high relationship quality condition than for the low relationship quality condition (Study 1);

b) Both relational groups respond similarly to partial compensation whereas high relationship quality customers are more satisfied with overcompensation compared to the low relationship quality customers (both Studies 1 and 2).

Hypothesis 2: The moderating effect of relationship quality on the compensation–satisfaction linkage is mediated by perceived reciprocity (Study 2).

3. Study 1

3.1. Data collection, experimental design, and measurement

We conducted a scenario-based experiment with a sample of 609 German participants who completed a paper-and-pencil questionnaire. Participants were recruited by students for course credits. We instructed students to find subjects who fit the quota of the general population with respect to gender and age. Respondents’ ages ranged from 18 to 84 years (M = 45.8), and 50.2% were women.

We conducted a 2 (relationship quality) by 11 (compensation level) between-subjects scenario-based experiment. The core scenario described a customer (i.e., a businessman) who spends a night at a hotel. In the high relationship quality condition, the customer regularly stayed at the hotel and knew this place very well. In the low condition, the customer has never stayed at the hotel before. The core scenario also described a service failure (i.e., sticky and filthy room). The next morning, the customer complained, and the frontline employee apologized and offered compensation in the form of a credit, which could be used for his current stay or for further stays at the hotel. A credit that can be applied right away ensures that the compensation has the same degree of attractiveness for strong and weak relationship quality customers. In Study 1, we use a large number of compensation amounts (eleven different levels), so we can fully map the curve progression.
between compensation and satisfaction. We manipulated the independent variable in 20% steps, ranging from 0% to 200%. This procedure ensures an equal distribution of remuneration levels across a realistic range.

After reading the scenario, respondents completed the manipulation checks. Then, they were asked to put themselves in the position of the customer and to respond to questions about the dependent and control variables as well as socio-demographics. Missing values were replaced using the hot-deck imputation method (Hair, Black, Babin, & Anderson, 2010).

We acknowledge that verbal self-reports have recently been criticized for their limited reliability (Woodside, 2016). However, this approach seems appropriate in our experimental study, because Woodside (2016, p. 374) advises using self-reports in situations of “very recent experiences.” In our experiment, respondents are asked to immediately indicate their responses to the presented experimental stimulus. Such an approach excludes memory lapses, which may occur in surveys that rely on retrospective experience sampling. Further, although we used hypothetical scenarios for our experiment, we chose real-life settings (hotel and restaurant) with which respondents were highly familiar. Finally, the scenarios were extensively pretested and thus, perceived as highly realistic (see the next section). In sum, we are confident that our experiments lead to reliable results.

3.2. Measures and checks

Our manipulation check for relationship quality was an established three-item scale (Grégoire et al., 2009), for example: “The customer is very committed to this company” (M = 3.56; SD = 2.50; Cronbach’s α = .97). The compensation check was an open-ended question, recoded from 1 = 0% to 11 = 200% (α = .97). The relationship quality manipulation had a significant effect on three-item scale (Grégoire et al., 2009), for example: “I would be satisfied with the complaint handling of the company” (M = 6.23; SD = 3.66; α = .97).

We controlled for the following variables: failure severity (one item; “The failure is major”; M = 5.70; SD = 1.47 [Hess et al., 2003]), failure attribution (three items; e.g., “The company was responsible for the failure”; M = 6.12; SD = 1.24; Cronbach’s α = .64 [Folkes, Koletsky, & Graham, 1987]), prior complaint experience (one item; “In the past, I have often complained directly to companies”; M = 3.89; SD = 1.87 [Jin, 2010]), and income (“What is the net monthly income of your household?”; M = .50; SD = .50 on a dichotomized low-high scale). We selected these variables because failure severity and firm responsibility were found to influence the level of requested compensation (Harris, Grewal, Mohr, & Bernhardt, 2006) and satisfaction (Choi & Mattila, 2006; Sengupta, Balaji, & Krishnan, 2015). In addition, it is likely that customers draw on prior complaint handling as well as on their financial situation when assessing the appropriateness of compensation. We used seven-point Likert scales for most items. The only exception was satisfaction, for which we used an eleven-point scale in order to create sufficient variance (Homburg, Koschate, & Hoyer, 2005). A confirmatory factor analysis (CFA) model containing the key reflective constructs revealed adequate fit indices (χ²/df = 1.466, GFI = .989, ACFI = .976, RMSEA = .028) and evidence of discriminant validity according to Fornell and Larcker (1981).

The validity of the two manipulations was assessed using ANOVAs. The relationship quality manipulation had a significant effect on the check, and the means were in the expected direction (Mlow = 1.25 vs. Mhigh = 5.98, F[1, 609] = 5153.59, p < .001). Likewise, the effect of the compensation manipulation on the check was significant (F[10, 609] = 312.17, p < .001). A Duncans’ post-hoc test produced eleven different compensation subgroups at the .05 level, with the means in the expected directions. Further, the scenarios were perceived as realistic (M = 5.55, t = 25.837, p < .001) and likely (M = 6.03, t = 40.202, p < .001) on seven point Likert-type scales, with mean responses significantly higher than the scale mid-point.

3.3. Analyses

3.3.1. Analyses overview

Our analyses are deemed to test the moderating impact of relationship quality with formal tests for H1a (i.e., different concavity or different relative increase in satisfaction between relational groups) and H1b (i.e., absolute difference in satisfaction between relational groups). For the first purpose, we conduct a multi-step hierarchical regression analysis as well as a simple slope difference test. For the second purpose, we use a floodlight analysis (Spiller, Fitzsimons, Lynch, & McClelland, 2013). The independent variables were centered to reduce multicollinearity, which resulted in VIF-values below 10 (Cohen, Cohen, West, & Aiken, 2003).

3.3.2. The concave function between compensation and satisfaction

The following quadratic regression model tests the overall concave curve:

 SAT = b0 + b1COMP + b2COMP²

where SAT indicates satisfaction, COMP is the manipulated compensation amount, b0 is the intercept, and b1 and b2 are the linear and quadratic slope parameters, respectively. Starting from a baseline model with the control variables (adjusted R² = .037), adding the linear (ΔR² = .297; F = 271.058, p < .001) and the quadratic compensation term (ΔR² = .025; F = 24.110, p < .001) yields significant changes in R-square. The quadratic model displays the highest adjusted R-square (.359), and all relevant regression coefficients (b1 to b2) are significant. The positive linear term (b1 = .637) indicates a positive effect of compensation on satisfaction; the negative quadratic term (b2 = -.067) confirms a concave curve progression (Cohen et al., 2003), which is consistent with our prediction. Adding the cubic term neither shows a significant R-square increase (ΔR² = .001; F = 1.126, p < .289), nor is the cubic term significant (b3 = .005, p < .289).

3.3.3. Test of H1a

To test the moderating effect of relationship quality, we examine the curvilinear-by-linear interaction between compensation and relationship quality, using Eq. (2):

 SAT = b0 + b1COMP + b2COMP² + b3RQ + b4COMP × RQ + b5COMP² × RQ

where RQ indicates relationship quality. Relationship quality moderates the degree of concavity if its multiplicative effect with the quadratic term of compensation (i.e., b2) is significant. As shown in the left part of Table 1, adding relationship quality (b2 = .181) as well as its linear by linear interaction with compensation (b2 = .171) to the quadratic model does not significantly increase R-square (ΔR²model 1 = .001; F = .570, p < .451; ΔR²model 2 = .002; F = 2.339, p < .127). However, adding the curvilinear-by-linear interaction term leads to a significant increase (ΔR²model 3 = .005; F = 4.425, p < .036) and the regression coefficient is significant (b3 = .058, p < .036).

We further specify the nature of this moderating effect by examining the regression equations for high and low relationship quality (see right part of Table 1). In the high group, the linear term is more pronounced (b1 = .711) than in the low group (b1 = .711). As shown in the left part of Table 1, the quadratic term is significant (ΔR²model 1 = .001; F = .570, p < .451; ΔR²model 2 = .002; F = 2.339, p < .127). However, adding the curvilinear-by-linear interaction term leads to a significant increase (ΔR²model 3 = .005; F = 4.425, p < .036) and the regression coefficient is significant (b3 = .058, p < .036).
Further, we test for the hypothesized steeper slope in the overcompensation range for high compared to low relationship quality customers, that is, for the higher relative increase in satisfaction. For this purpose, we conduct simple slope difference tests for the eleven manipulated compensation amounts, following the procedure suggested by Dawson and Richter (2006). First, we calculate the generic formulas for the simple slopes of the effect of compensation on satisfaction for each manipulated compensation amount at high and low relationship quality levels (Aiken & West, 1991). Then, we derive the difference between any pair of slopes ($\Delta$ slope), calculate the respective standard error of the slope difference, and conduct a t-test to see whether the slopes in the two groups differ significantly from each other. Results suggest that the slopes between the two relationship quality groups differ significantly starting from 120% compensation ($\Delta$ slope = .227, $t$ (599) = 2.455, $p < .014$), with a steeper slope for high relationship quality customers (slope = .633) than for low relationship quality customers (slope = .406). Consistent with the illustration of the curves for the two groups, this result confirms a lower degree of concavity for the high relationship quality group compared to the low relationship quality group. Overall, H1a is supported.

### 3.3.4. Test of H1b
H1b examines the absolute difference in satisfaction between high vs. low relationship quality customers. Based on the predicted values in Fig. 2, high relationship quality customers start feeling more satisfied than the low relational group at the 130% mark. To test for the significance of the observed differences (H1b), we conduct a floodlight analysis using the Johnson–Neyman technique, which formally identifies the ranges of compensation amounts for which the simple effects of relationship quality are significant (Spiller et al., 2013). The result of this analysis shows that high relationship quality customers report significantly higher satisfaction scores at 170% and above ($b = .71, t = 1.980, p < .048$), and marginally significant higher scores at 164% ($b = .56, t = 1.665, p < .097$). Hence, H1b is supported.

### 3.4. Discussion of Study 1
Study 1 supports H1a and H1b. The curve progression between compensation and transaction-specific satisfaction is more concave for low than for high relationship quality customers. There is a difference in satisfaction increase starting at 120%, and there is a gap between the two curves for very high compensation levels, which starts at 130% and becomes significant at 170%. These findings can be viewed as a form of appreciation effect. We argue that high relationship quality customers appreciate overcompensation because it not only reciprocates their economic costs, but also their social costs, that is, the damage of their relationship with the firm. Although Fig. 2 may suggest slight differences between the curves at lower compensation levels, these differences are not significant. Both customer groups respond in a similar manner to partial compensation.

Study 1 possesses some limitations that we address in Study 2. First, although scenario-based studies represent a reasonable method to study conflicts (e.g., Grégoire et al., 2009; Hui & Bateson, 1991; Sengupta et al., 2015), it may suffer from limited external validity (as most experiments). We account for this weakness by following Woodside’s (2016) recommendation to replicate our findings. As Study 1 tests the moderating effect of relationship quality in a specific context (hotel) with a unique sample (Germans), we seek to reproduce our results in a different context (a restaurant) and with another sample (Americans). For this replication, we do not aim to reproduce the concave curve progression. Rather, our goal is to verify compensation

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**Table 1**

Hierarchical regression results.

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Model 1</th>
<th>Model 2 Interaction</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>6.887***</td>
<td>6.884***</td>
<td>6.883***</td>
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<tr>
<td>Failure severity</td>
<td>-0.374***</td>
<td>-0.374***</td>
<td>-0.377***</td>
</tr>
<tr>
<td>External attribution</td>
<td>-0.040</td>
<td>-0.246*</td>
<td>-0.233*</td>
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<tr>
<td>Prior complaint experience</td>
<td>-0.111</td>
<td>-0.107</td>
<td>-0.104</td>
</tr>
<tr>
<td>Income</td>
<td>-0.258</td>
<td>-0.259</td>
<td>-0.219</td>
</tr>
<tr>
<td>Compensation level (linear)</td>
<td>0.638***</td>
<td>0.637***</td>
<td>0.640***</td>
</tr>
<tr>
<td>Compensation level (squared)</td>
<td>-0.067***</td>
<td>-0.067***</td>
<td>-0.067***</td>
</tr>
<tr>
<td>Relationship quality</td>
<td>0.181</td>
<td>0.180</td>
<td>-0.378</td>
</tr>
<tr>
<td>Compensation level × relationship quality</td>
<td>-0.117</td>
<td>0.121</td>
<td>-0.058</td>
</tr>
<tr>
<td>Compensation level (squared) × relationship quality</td>
<td>-0.117</td>
<td>0.121</td>
<td>-0.058</td>
</tr>
<tr>
<td>R²</td>
<td>0.366</td>
<td>0.368</td>
<td>0.373</td>
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<tr>
<td>Adjusted R²</td>
<td>0.358</td>
<td>0.360</td>
<td>0.363</td>
</tr>
<tr>
<td>F-Value</td>
<td>49.515***</td>
<td>43.715***</td>
<td>39.571***</td>
</tr>
<tr>
<td>ΔF²</td>
<td>0.001</td>
<td>0.002</td>
<td>0.005</td>
</tr>
<tr>
<td>ΔF-Value</td>
<td>0.570</td>
<td>2.339</td>
<td>4.425*</td>
</tr>
</tbody>
</table>

Notes: Unstandardized regression coefficients.

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

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1 The test formula for the slope differences was derived based on the mathematical notions of Dawson and Richter (2006), and is available upon request from the authors.
ranges, where weak and strong relationship quality customers respond similarly and differently. For this purpose, we focus on the comparison of the satisfaction levels at partial and overcompensation across high and low relationship quality customers (i.e., H1b).

Second, Study 1 uses transaction-specific satisfaction, which is a judgment that only concerns the most recent recovery effort. In Study 2, we use overall satisfaction with the firm as the dependent variable, which encompasses all the interactions with the provider—not only the most recent ones (Gelbrich & Roschk, 2011b). This overall satisfaction judgment may represent an even more meaningful success criterion for firms. As transaction-specific satisfaction correlates with overall satisfaction (Homburg & Fürst, 2005; Maxham & Netemeyer, 2002), Study 2 aims to test whether H1b generally holds true for overall satisfaction. Yet, specifically and more importantly, we also explore whether relationship quality affects the link “compensation → satisfaction” in a different manner when we use an overall rather than a specific satisfaction judgment.

As a final limitation, Study 1 does not test the process that explains the moderation effect of relationship quality. Given our contention that the reciprocity norm should play an important role (Blau, 1964; CROPANZANO & Mitchell, 2005), Study 2 tests the mediating role of perceived reciprocity (i.e., H2).

4. Study 2

4.1. Data collection, experimental design, and measurement

Data were collected online through Amazon's Mechanical Turk. We recruited 202 American respondents who received monetary compensation for their participation. Their age ranged from 19 to 73 years (M = 37.0), and 41.1% were women. We conducted a scenario-based experiment with a 2 (relationship quality) × 5 (compensation level) between subjects design. We chose a service failure in a restaurant because most people are familiar with this context, and it has been used in prior research (Grégoire et al., 2009; Roschk & Kaiser, 2013). In the core scenario, the participants received a poor service on a hot summer day, when the air was sticky and uncomfortable due to an air conditioning outage. In addition, the table was dirty. In Study 2, we did not manipulate all the compensation points comprised in Study 1, but rather focused on specific low and high compensation points. We first chose the 0%, 40%, and 80% points, which represent a reasonable range for partial compensation. We then selected the 160% and 200% points for two reasons. First, both levels represent clear overcompensation. Second, the floodlight analysis in Study 1 indicated marginally significant effects starting at about 160%.

We used the same measures as in Study 1: the checks for relationship quality (M = 3.89; SD = 2.58; Cronbach’s α = 0.98) and compensation level (M = 92.48 $) as well as failure severity (M = 5.78; SD = 75.22), failure attribution (M = 5.40; SD = 1.35; Cronbach’s α = 0.88), prior complaint experience (M = 4.16; SD = 1.84), and income (M = .53). For the dependent variable, we measured overall satisfaction with the item “I would be satisfied with the overall experience with the restaurant” (M = 4.38; SD = 3.24) (Maxham & Netemeyer, 2002). We also measured perceived reciprocity with a three-item scale adapted from Arnett et al. (2003), which included “The restaurant’s complaint handling values the customer’s past contributions to the restaurant’s success” (M = 4.42; SD = 3.74; Cronbach’s α = .98). Again, we measured most items on seven-point Likert scales, but used eleven-point scales for satisfaction and perceived reciprocity. A CFA with the reflective constructs revealed an adequate data fit (χ²/df = 1.013, GFI = .983, AGFI = .951, RMSEA = .008) and evidence of discriminant validity.

ANOVA showed that both the relationship quality manipulation (Mlow = 1.48 vs. Mhigh = 6.41; F[1, 202] = 2222.59, p < .001) and the compensation manipulation (F[4, 202] = 2678.76, p < .001) had significant effects on the respective checks, with the means in the expected directions. As expected, a Duncan’s post-hoc test showed five different compensation subgroups. Further, the scenarios were perceived as realistic (M = 5.70, t = 18.828, p < .001) and likely (M = 5.74, t = 19.127, p < .001), with mean values significantly above the midpoint on the seven point Likert-type scales.

4.2. Analysis

4.2.1. Analyses overview

First, we seek to replicate H1b by running an ANOVA with the manipulated compensation amount as the independent variable, overall satisfaction as the dependent variable, and relationship quality as a moderator. Second, we conduct a mediated moderation analysis based on Hayes (2013) to test the mediating role of perceived reciprocity (H2). None of the control variables are significant in either analysis, so they are excluded from further analyses.

4.2.2. Replication of H1b

An ANOVA yields significant effects of compensation (F[4, 202] = 31.34, p < .001), relationship quality (F[1, 202] = 194.29, p < .001), and their interaction (F[4, 202] = 3.69, p < .006) on overall satisfaction. Fig. 3 depicts the mean satisfaction scores at the five compensation levels. In order to test if these differences are significant, we calculate simple main effects for each compensation level (i.e., 0%, 40%, 80%, 160%, and 200%). Relationship quality has a significant simple main effect at 80% (Mlow = 5.88 > Mhigh = 3.55; F[1, 39] = 9.35, p < .004), 160% (Mlow = 7.39 > Mhigh = 4.76; F[1, 39] = 8.03, p < .007), and 200% compensation (Mlow = 8.32 > Mhigh = 4.50; F[1, 40] = 23.11, p < .001), but is nonsignificant at 0% (Mlow = 1.42 = Mhigh = 1.14; F[1, 45] = 2.51, p < .121) and 40% compensation (Mlow = 4.33 > Mhigh = 3.52; F[1, 39] = .71, p < .405). These results are largely consistent with H1b and Study 1. Both customer groups respond in a similar manner to low compensation levels (0% and 40%). However, as expected, high relationship quality customers are more satisfied with higher compensation levels (i.e., 80%, 160%, and 200%) compared to the low relational group. Further, the gap between groups increases with the compensation level, consistent with our logic.

Fig. 3. Mean overall satisfaction at different compensation levels (Study 2).

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(2) For further analyses, we removed one item (“The restaurant was responsible for the conditions in the dining room”) due to high modification indices in the CFA.

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4.2.3. Test of H2

We conduct a mediated moderation analysis based on Hayes (2013). Results show a significant compensation by relationship quality interaction on satisfaction (b = .0170, t = 3.69, p < .001) and on the mediator reciprocity (b = .0326, t = 7.97, p < .001). Further, bootstrap analyses with 10,000 samples (using 95% bias-corrected confidence intervals [CI]) yield a significant indirect effect of the interaction (i.e., compensation by relationship quality) on satisfaction going through reciprocity (b = .0191, SE = .0034, CI: .0132 to .0266). In addition, the conditional indirect effects of compensation → reciprocity → satisfaction is significant for high (b = .0224, SE = .0032, CI: .0162 to .0289) and for low relationship quality customers (b = .0033, SE = .0016, CI: .0005 to .0069), and this effect is more pronounced for the high relational group. Overall, these results support H2.

4.3. Discussion of Study 2

Our results essentially replicate Study 1’s findings, with a different context (restaurant), and sample (Americans). Study 2 confirms a similar response pattern for overall satisfaction: Both relational groups respond similarly to the absence (0%) or a low amount (40%) of compensation, but high relationship quality customers are more satisfied with high compensation amounts (80% and higher). Overall, the logic underlying H1 appears to be robust; both relational groups respond similarly to low compensations, and firms’ best customers respond more favorably to higher compensations.

It should be noted, however, that the compensation level from where high relationship quality customers are more satisfied than their counterparts already occurs at 80%. This threshold is lower compared to that observed for transaction-specific satisfaction examined in Study 1, which starts to occur at 130% and becomes significant at 170% compensation. We explain this difference in the next section, where we also discuss the particularities of using overall satisfaction, and the stronger effect of relationship quality in the formation of this judgment.

Importantly, Study 2 supports H2 and provides empirical evidence of the mediating role of reciprocity. Although this norm has been regularly discussed (e.g., Grégoire & Fisher, 2008), the mediation effect has never been formally tested in a recovery context. In sum, our findings demonstrate that perceived reciprocity is a relevant theoretical anchor for explaining how high vs. low relationship quality customers respond to compensation.

5. Overall discussion

5.1. Theoretical implications

We discuss the theoretical implications by referring to the three contributions outlined in our introduction: 1) relationship quality affects the nonlinear pattern of the compensation—satisfaction path; 2) perceived reciprocity plays a key mediating role; and 3) the optimal compensation for high vs. low relationship quality customers differs for transaction-specific satisfaction compared to overall satisfaction.

5.1.1. Relationship quality as a moderator on the nonlinear compensation—satisfaction path

By integrating research on relationship quality (Ha & Jang, 2009; Mattila, 2001; Worsfold et al., 2007), and knowledge on the nonlinear effect of compensation on satisfaction (Boshoff, 2012; Gelbrich & Roschk, 2011b), we find an important interaction effect between relationship quality and compensation. This research provides a comprehensive view of the different nonlinear responses of weak and strong relationship customers, given a wide range of compensation amounts (between 0% and 200%). This finding sheds new light on prior research that did not empirically examine the role of relationship quality (Gelbrich & Roschk, 2011b), or that incorporated relational constructs for a limited range of compensation amounts (e.g., Worsfold et al., 2007).

Study 1 shows that the curve progression is different for both relational groups when we measure transaction-specific satisfaction. It is concave for the weak relational group (which so far has been proposed for all customers), but almost linear for high relationship quality customers (which has not been predicted yet). The significantly stronger increase in satisfaction for overcompensation in the high relationship quality group starts at 120%. It yields higher satisfaction levels for this customer group at 130% compensation, and this difference becomes significant at 170% compensation. This latter result is an important extension because it provides the foundation for clearly identifying the differences between both relational groups. Overall, relationship status does not matter for low compensation amounts, but high relationship quality customers are more responsive to high compensations (compared to the low subgroup).

This overall pattern is replicated for overall satisfaction in Study 2. In forming their cumulative satisfaction judgment, both relational groups respond similarly to low compensations, but high relationship quality respond more favorably than their counterparts to high compensation levels. Unlike Study 1 however, the threshold for this latter effect already occurs at 80%—this unexpected results is due to a change in satisfaction (from specific to overall) and it is further discussed in our third contribution.

5.1.2. Reciprocity as a key mediator

Study 2 extends prior research that did not formally examine the processes at play (Ha & Jang, 2009; Worsfold et al., 2007). We find that perceived reciprocity (Cronanzano & Mitchell, 2005; Gouldner, 1960) mediates the moderating effect of relationship quality on the compensation—satisfaction linkage. In line with SET (Blau, 1964), customers’ satisfaction seems to be largely conditioned by their perceptions that a firm has met its obligation to reciprocate or repay their past costs that led to a loss.

Low compensation mainly serves the purpose to repair a failure and reimburse the economic loss. Since both relationship groups experience the same economic loss, their reaction to low compensation is similar. Reimbursements that do not fully cover the economic loss could be perceived as a form of negative reciprocity by both types of customers. As a result, both customer groups display low satisfaction levels, which incrementally increases as a compensation approaches the 100% mark. This finding adds important insight to previous research, which suggests—without providing empirically support—that reciprocity is the underlying mechanism explaining customer responses after a service failure (Grégoire & Fisher, 2008).

In turn, high compensation mainly aims to repair a relationship and its related social loss (Grégoire et al., 2009). Here, high relationship quality customers may perceive generous remunerations as a reciprocal gesture that acknowledges their prior trust, commitment, and social bonding with the firm. High compensation has the potential to mend or even grow a relationship that has been damaged by the failure. In contrast, low relationship quality customers, in lack of such prior ties, do not appreciate overcompensation to the same extent. Faced with too much remuneration, weak relationship customers timidly respond, and their overall response pattern shows a saturation effect, as predicted by SET (Emerson, 1976).

5.1.3. Optimal compensation and transaction-specific versus overall satisfaction

In general, our research suggests that lower compensation is adequate for normal customers, whereas higher compensation could be considered for a firm’s best customers. This recommendation is supported by the presence of an appreciation effect for strong relationship customers, for high compensation levels (both studies). For the weak relational group, firms just need to compensate for the basic perceived loss, and there is limited incentive to go beyond this mark. For the...
strong relational group, it could make sense to provide overcompensation, which yields an interesting return in terms of satisfaction.

However, we observe that the threshold shifts for lower values on the compensation range when customers are asked to indicate their overall satisfaction, rather than their satisfaction with the focal recovery. In the case of overall satisfaction, the judgments of weak and strong relationship customers already start to differ at partial compensation (80%), while for transaction-specific satisfaction, they start to differ in the range of overcompensation (130%).

We believe these differences can be attributed to the nature of overall satisfaction. Overall satisfaction—compared to the transaction-specific form—refers to all the service interactions that a customer had with a firm, versus only the last recovery interaction (Gelbrich & Roschik, 2011b; Homburg & Fürst, 2005). High versus low relationship customers differ in the number and valence of these prior interactions. Strong relationship customers can base their judgment on a vast number of positive service interactions, in addition to the current negative interaction (i.e., the given service failure). In contrast, weak relationship customers can only refer to the recent negative interaction with the provider; so this experience is particularly influential in forming their overall satisfaction.

We suggest the relational difference—and the subsequent number and valence of prior interactions—are less relevant at low compensation levels. For 0–40%, we observe comparable overall satisfaction ratings: The last interaction is so negative that it becomes the most diagnostic for both relationship groups, when they form their overall satisfaction judgment (Fiske, 1980). Providing no or low compensation after a service failure represents a “double deviation” (i.e., a service failure followed by a failed recovery) as well as a strong negative event for both relational groups. For strong relationship customers, this extremely negative event should overwhelm all the effects of the prior positive interactions in forming their overall judgment of the firm.

The relational difference among groups becomes relevant as compensation moves towards 100%—that is, the more the failure episode represents a single rather than a double deviation. For weak relationship customers, this single deviation still represents most of their previous interactions with the firm, and it strongly influences their overall satisfaction. For strong relationship customers however, the single deviation is less influential; it only represents one interaction among many others (which were mainly positive). For the latter customer group, the past positive interactions should offset the recent service failure, and help amplifying the effect of the actual compensation (which is close to or above 100%).

5.2. Managerial implications

Managers should offer compensation according to their customers’ relationship status. For strong relationship customers, the growth curve is almost linear, and overcompensation provides an interesting return (in terms of satisfaction). If the business of a longstanding customer is critical to the firm, it could offer a reasonable level of overcompensation. However, service providers should be careful before massively investing in high overcompensation as it entails considerable costs. In the two contexts examined, strong relationship customers’ satisfaction is still below the top of the scale (Study 1 = 9.2; Study 2 = 8.3), even after overcompensation. So, we recommend that firms combine appropriate compensation with other procedural and interactional recovery efforts (Chebat & Slussarczyk, 2005; Del Río-Lanza et al., 2009), such as providing the compensation within an appropriate time frame (Zhou, Tsang, Huang, & Zhou, 2014) or being empathic and offering an apology (Maxham, 2001). At the same time, firms should recognize that the accumulation of positive experiences combined with a reasonable compensation is the best strategy to save customers’ positive overall assessment of the firm.

For weak relationship customers, firms should provide lower compensation because it produces the strongest incremental effect on satisfaction, while the incremental effect of higher compensation is marginal. Overcompensation seems particularly ineffective for this segment, because it provides only limited satisfaction returns. Given the high costs of this recovery strategy, service provider may run the risk of investing too much in customers who are not expecting and valuing such a gesture. Overall, firms should be aware that if the new relationship starts with a negative service episode, even overcompensation is an ineffective tool to correct customers’ negative overall assessment of the firm.

5.3. Limitations and future research

Some limitations of our research require further research. First, we built our studies on questionnaires that rely on respondents’ self-reports. Self-reports can be problematic because individuals are not perfectly aware of the thoughts and cognitive processes that lead them to respond to a stimulus (Woodside, 2016). A solution to this limitation would be to study the compensation effect for the two relationship groups through observations in real life. Therefore, we invite other researchers to replicate our findings in a field experiment, in order to establish an independent reproduction of the current results. Studying this phenomenon by means of a second and distinct methodology, would also be a valuable validation of the current research results (Woodside, 2016). In general, we invite the whole community of researchers studying service failure to develop new methodologies—other than scenario-based experiments and retrospective surveys—to study this important phenomenon.

Second, although R-square values of 30% to 45% across the two experiments are acceptable for single-cue studies, other recovery efforts may increase the variance explained in satisfaction. In particular, the two relationship groups may value different recovery efforts. For example, strong relationship customers could appreciate concerned and attentive employee behaviors (Sparks & McColl-Kennedy, 2001). In turn, weak relationship customers—who seem relatively satisfied with simple compensation—may be especially receptive to a recovery within an appropriate time frame (Zhou et al., 2014). Further research should examine which combination of tactics is the most effective for both relational groups.

Third, we conceptualized customer relationship as relationship quality. Drawing on relationship type, Mattila (2001) finds differences in compensation effectiveness based on three relationship groups (i.e., service encounter, pseudo-relationship, and service relationship). It would be interesting to examine whether different conceptualizations of relationships confirm or infirm our key findings.

References


