

Can't Get It Out of My Mind: Employee Rumination After Customer Mistreatment and Negative Mood in the Next Morning

Mo Wang
University of Florida

Songqi Liu
Pennsylvania State University

Hui Liao
University of Maryland

Yaping Gong
Hong Kong University of Science and Technology

John Kammeyer-Mueller
University of Florida

Junqi Shi
Sun Yat-sen University

Drawing on cognitive rumination theories and conceptualizing customer service interaction as a goal attainment situation for service employees, the current study examined employee rumination about negative service encounters as an intermediate cognitive process that explains the within-person fluctuations in negative emotional reactions resulting from customer mistreatment. Multilevel analyses of 149 call-center employees' 1,189 daily surveys revealed that on days that a service employee received more (vs. less) customer mistreatment, he or she ruminated more (vs. less) at night about negative encounters with customers, which in turn led to higher (vs. lower) levels of negative mood experienced in the next morning. In addition, service rule commitment and perceived organizational support moderated the within-person effect of customer mistreatment on rumination, such that this effect was stronger among those who had higher (vs. lower) levels of service rule commitment but weaker among those who had higher (vs. lower) levels of perceived organizational support. Theoretical and practical implications of these findings are discussed.

Keywords: customer mistreatment, mood, rumination, customer service, goal attainment

Employees who are required to maintain positive interactions with customers may undertake excessive emotional burden and experience serious consequences, such as emotional exhaustion, negative health symptoms, and absenteeism (e.g., Grandey, 2000, 2003; Johnson & Spector, 2007; Judge, Woolf, & Hurst, 2009; Schaubroeck & Jones, 2000). During service interactions, cus-

tomers mistreatment, defined as the low-quality interpersonal treatment (e.g., verbal abuse, unfair demands, and disrespectful behaviors) that employees receive from their customers (Bies, 2001; Skarlicki, van Jaarsveld, & Walker, 2008), may be particularly demanding for service employees. For example, several authors have reasoned that customer mistreatment could compromise service employees' short-term and long-term emotional well-being (e.g., Bies, 2001; Harris & Reynolds, 2003). Further, recent empirical studies using experimental simulations (e.g., Rupp & Spencer, 2006; Spencer & Rupp, 2009) and cross-sectional field data (e.g., Dormann & Zapf, 2004; Grandey, Dickter, & Sin, 2004) have shown that employees who received mistreatment from customers (vs. those who did not or to a lesser extent) experienced higher levels of negative emotions.

To our knowledge, prior research has mainly focused on examining either the negative effect of chronic exposure to customer mistreatment on employee emotional well-being or employee immediate emotional reactions to customer mistreatment. For example, cross-sectional studies (e.g., Dormann & Zapf, 2004; Grandey et al., 2004) demonstrated a robust positive relationship between customer mistreatment as a job characteristic and service employees' emotional exhaustion, whereas lab simulation studies (e.g., Rupp & Spencer, 2006; Spencer & Rupp, 2009) showed that college students who acted as service providers experienced higher levels of anger right after receiving mistreatment from customers

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Mo Wang, Department of Management, Warrington College of Business, University of Florida; Songqi Liu, Department of Psychology, Pennsylvania State University; Hui Liao, Department of Management and Organization, Robert H. Smith School of Business, University of Maryland; Yaping Gong, Department of Management, Hong Kong University of Science and Technology, Hong Kong; John Kammeyer-Mueller, Department of Management, Warrington College of Business, University of Florida; Junqi Shi, Lingnan (University) College, Sun Yat-sen University, Guangzhou, China.

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Correspondence concerning this article should be addressed to Mo Wang, Department of Management, Warrington College of Business, University of Florida, Gainesville, FL 32611, or to Junqi Shi, Lingnan (University) College, Sun Yat-sen University, Guangzhou, China 510275. E-mail: mo.wang@warrington.ufl.edu or shijq3@mail.sysu.edu.cn

played by confederates. However, little is known about the potential mediating mechanisms via which the negative effect of customer mistreatment goes beyond the service episode and persists to influence employees' emotions at a later time (Tschan, Rochat, & Zapf, 2005). In other words, although we know that in the long run customer mistreatment is associated with lower levels of employee well-being, how customer-mistreatment-induced negative emotional reactions may contribute to the later manifestation of the negative effect is still unclear (Harris & Reynolds, 2003).

Recent work on daily stress and coping suggests that rumination induced by goal failure might serve to maintain negative emotions and prolong the negative impact of daily stressors (Moberly & Watkins, 2008; Suls & Martins, 2005). Nonetheless, such a cognitive mechanism has not been theoretically integrated into the customer service literature to link negative daily work experience to employees' lasting emotional experience. Therefore, the current study conceptualizes customer service interaction as a goal attainment situation for service employees and draws on cognitive theories of rumination to examine the role of employee rumination at night in bridging the gap between daily customer mistreatment and its lagged manifestation on employee emotional well-being, in particular, employees' negative mood next morning. Here, consistent with cognitive theories of rumination, goals are conceptualized as both explicitly and implicitly desired end states for an individual.

Further, it is also important to understand the boundary conditions that may exacerbate or weaken the effect of customer mistreatment on rumination. To address this gap, conceptualizing customer service interaction as a goal pursuit situation for service employees, we investigate factors that either promote psychological importance of the goal (i.e., service rule commitment) or protect employees from goal failure (i.e., perceived organizational support [POS]) as potential moderators of the within-person association between customer mistreatment and employee rumination. Our examination of these potential moderators not only answers Reynolds and Harris's (2006) call to better understand the contingencies of the negative consequences of customer mistreatment but also informs intervention effort to reduce such negative consequences. In addition, examining these potential moderators provides an opportunity for us to directly test the theoretical utility of using the goal-related conceptualization for customer service interaction and to extend cognitive theories of rumination in terms of integrating goal-related factors to understand individual vulnerability to rumination.

In sum, the current study aims to examine the within-person relationship between customer mistreatment and employee negative mood. On the basis of cognitive theories of rumination, we propose employee rumination on negative interactions with customers as an intermediate cognitive process that explains the persistence of negative emotional reactions. In addition, extending rumination theory and the customer service literature, we examine employees' service rule commitment and POS as moderators of the daily customer mistreatment–rumination association. Methodologically, to rigorously test these hypothesized effects, we controlled for the baseline rumination (i.e., assessed on Day $t - 1$) when assessing the effect of customer mistreatment on rumination (i.e., assessed on Day t) and controlled for baseline negative mood (i.e., assessed on Day t) when assessing the effect of rumination on negative mood of the next morning (i.e., assessed on Day $t + 1$) in the within-person analysis. Figure 1 depicts our hypothesized model. In the following sections, we first introduce cognitive theories of rumination. We then conceptualize customer service interaction as a goal pursuit situation for service employees and develop our hypotheses accordingly.

Cognitive Theories of Rumination

According to cognitive theories of rumination (Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008; Smith & Alloy, 2009), rumination refers to conscious thinking directed toward failure in goal pursuit for an extended period of time. It is instigated when individuals fail to progress toward an important goal and ceases when individuals attain the goal, resume progress toward it, or disengage from it (Martin & Tesser, 1989). According to this theory, the proximate underlying cause of rumination is the heightened accessibility of the goal failure experience in one's memory (Rothermund, 2003). Thus, even though the best chances of addressing the triggering event (e.g., failing to complete one's task effectively) have passed, the event-related information keeps activating. This heightened activation makes event-related thoughts not only easily cued and reproducible but also difficult to get rid of, which sets the stage for ruminative thoughts (Martin, Tesser, & McIntosh, 1993).

Further development of this theory also accounts for the fact that goal failure may not be followed instantly by rumination. For example, immediately after experiencing failure in goal pursuit, individuals may immerse themselves in their work, hobby, or social activities, which focus the person on something other than

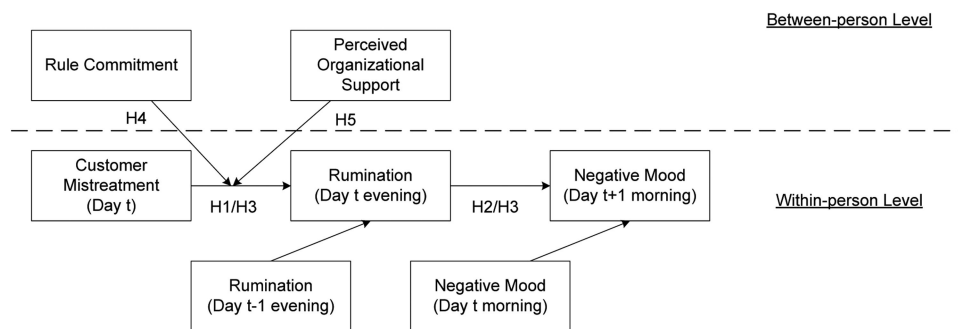


Figure 1. Hypothesized model. Rumination at Day $t - 1$ and negative mood at Day t are baseline control variables at the within-person level.

the unattained goal. These refocusing attempts, however, do not necessarily help to achieve the goal, which means the motivation to attain the goal remains. Therefore, it should only be a matter of time until the distraction attempts dissipate and the rumination thoughts surface (Nolen-Hoeksema, 1991; Nolen-Hoeksema et al., 2008). Consequently, repetitively reliving the failure in goal pursuit may lead to prolonged or even strengthened negative affect. In fact, consistent with the hypothesis that rumination contributes to the onset and maintenance of depressive mood, longitudinal studies have found that rumination predicts the onset of subsequent sadness/depressive episodes among nonclinical populations (Thomsen, 2006). Below, we directly apply cognitive theories of rumination to link daily customer mistreatment to employees' negative mood in the next morning.

Conceptualizing Customer Service Interaction and Hypotheses Development

We argue that service employees typically strive to attain two types of goals during customer service interactions. The first type of goal is task related. In particular, during customer service interactions, service employees are presented with the job-related emotional demands imposed by the organization (e.g., service with a smile; Grandey, 2000) and are required to collaborate with customers, solve their problems, and fulfill their requests (Dormann & Zapf, 2004). The specific content of this type of goal is often assigned to employees by the organization in the form of customer service rules (Bies, 2001; Harris & Reynolds, 2003). The second type of goal is self related. During customer service interactions, service employees also strive to foster their own feelings of relatedness and accomplishment to maintain positive views about themselves (Dormann & Zapf, 2004; Skarlicki et al., 2008). This type of goal is often innately driven, and it is associated with individuals' general desire to be respected and valued (DeShon & Gillespie, 2005), as well as the conventional social norms of dignity and sensitivity in interpersonal interactions (Skarlicki & Folger, 2004).

If both the task-related goal (i.e., successful completion of service) and the self-related goal (i.e., maintaining positive views about oneself) held by service employees during customer service interaction are considered, it is conceivable that customer mistreatment may be viewed as signaling failure of goal pursuit by the employee. On the one hand, low-quality interpersonal treatment received from customers often signals low levels of customer satisfaction, deviating from the goal of customer service tasks (Harris & Reynolds, 2003). In addition, when receiving customer mistreatment, the service interactions could become very stressful and resource taxing, lowering the likelihood for employees to view themselves as successfully completing the service (Grandey, 2000; Wang, Liao, Zhan, & Shi, 2011). On the other hand, when experiencing customer mistreatment, service employees are unable to gain feelings of relatedness and accomplishment that are expected from successful service interactions, which may prevent them from achieving the implicit self-goal (DeShon & Gillespie, 2005). Further, customer mistreatment itself is a violation of the conventional social norms of dignity and sensitivity in interpersonal interactions and thus also likely to pose a threat to the positive self-view of the employee (Skarlicki et al., 2008).

Drawing on the notion that customer mistreatment may signal goal failure during customer service interaction, as well as cognitive theories of rumination reviewed earlier, we believe it possible that the more customer mistreatment an employee experiences on a given day, the more accessible the information related to negative customer interactions will be on the same day. Consequently, the employee will be more likely to ruminate on such goal blockage incidents. In other words, the employee will be more likely to ruminate on days he or she experiences more customer mistreatment than on days he or she experiences less customer mistreatment. Thus, we propose

Hypothesis 1: Daily customer mistreatment is positively related to employees' rumination at night.

Employees who engage in rumination may perceive that they are gaining insight about their service performance by attending to the details of the negative interactions (Lyubomirsky & Nolen-Hoeksema, 1993). However, there is considerable evidence that rumination actually serves to maintain or even exacerbate the negative emotional reaction induced by goal failure (Nolen-Hoeksema et al., 2008; Smith & Alloy, 2009). According to Nolen-Hoeksema (1991), rumination exacerbates and prolongs negative emotions through several mechanisms. First, rumination casts a negative bias on thinking, making it easier for people to access the negative thoughts and memories activated to understand their current circumstances (Lyubomirsky & Nolen-Hoeksema, 1995). Second, rumination interferes with effective problem solving by making thinking more pessimistic and fatalistic. Therefore, it decreases the likelihood that people will continuously pursue and eventually attain the goal (Nolen-Hoeksema et al., 2008; Suls & Martin, 2005). Third, rumination interferes with instrumental behaviors, preventing people from improving their mood. For example, self-focused rumination reduces willingness to engage in pleasant and distracting activities that could improve an individual's mood, even if the individual believed that he or she would enjoy such activities (Lyubomirsky & Nolen-Hoeksema, 1993). Consistent with those arguments, Moberly and Watkins (2008) found that within-person fluctuation of rumination predicted negative affect at subsequent occasions. On the basis of these theoretical arguments and empirical evidence, we expect that at the within-person level, more rumination on customer treatment at night will lead to higher levels of negative mood in the next morning.

Hypothesis 2: Employees' rumination at night is positively related to their negative mood in the next morning.

As suggested by cognitive theories of rumination, ruminative thinking is a cognitive mechanism through which negative emotional reactions may persist and prolong (Smith & Alloy, 2009). Consistent with this argument, rumination has been found to mediate the relationship between triggering factors for depression and subsequent depressive symptoms (Nolen-Hoeksema et al., 2008). In addition, a more recent study at the workplace showed that schoolteachers with higher levels of job strain ruminated more about job-related issues in the evening, and rumination was negatively related to their sleep quality (Cropley, Dijk, & Stanley, 2006). Taken together, these theoretical arguments and empirical findings suggest the mediating role of ruminative thinking in

leading to the perseverance of negative mood induced by customer mistreatment. Namely, on days that service employees experience more customer mistreatment, they are more likely to ruminate at night and subsequently experience stronger negative mood in the next morning. Therefore, we propose

Hypothesis 3: Employees' rumination at night mediates the within-person relationship between daily customer mistreatment and employees' negative mood in the next morning.

The Moderating Effects of Service Rule Commitment and POS

Another aim in the current study is to understand boundary conditions that may exacerbate or weaken the within-person effect of customer mistreatment on rumination. Given that we conceptualized customer mistreatment as signaling goal failure for service employees, we investigate potential moderators that either promote the psychological importance of the goal or protect employees from goal failure. In particular, we examine employees' service rule commitment as the moderator that increases goal importance and POS as the moderator that provides protection from goal failure.

Employee service rule commitment refers to an employee's commitment to organizational service rules (Gosserand & Diefendorff, 2005). It is a motivational variable that captures the degree to which an employee accepts the service goals assigned by the organization and intends both to exert effort toward consistently conforming to these rules over time and to maintain these service rules under difficult situations (Wang et al., 2011). In other words, it captures the psychological importance for an employee to achieve task-related goals in customer service interaction. As such, employees with higher levels of service rule commitment are likely to attach higher levels of psychological importance to the service goal; thus, they are more sensitive to cues related to goal failure (e.g., customer mistreatment) and are more likely to experience heightened accessibility of the failure experience in their memories. Consequently, on days that they receive more customer mistreatment, they are more likely to ponder over the negative service interaction related information and engage in rumination about customer mistreatment at night than are those with lower levels of service rule commitment. Therefore, we expect

Hypothesis 4: Employee service rule commitment moderates the within-person level relationship between daily customer mistreatment and employee rumination at night, such that this positive association is stronger for people with higher levels of rule commitment than for people with lower levels of rule commitment.

POS is defined as an employee's "global beliefs concerning the extent to which the organization values their contributions and cares about their well-being" (Eisenberger, Huntington, Hutchison, & Sowa, 1986, p. 501). Previous studies have demonstrated that employees with higher (vs. lower) levels of POS indeed enjoy better material and socioemotional support from their organizations in completing their tasks (e.g., Rhoades & Eisenberger, 2002) and are more confident that such support is available to them when needed (e.g., Takeuchi, Wang, Marinova, & Yao, 2009). As such, it is conceivable that employees with higher levels of POS are

more likely to view that their service goal pursuits are facilitated and backed up by the organization. Consequently, when they are mistreated by customers, they may be more confident that the organization will be on their side. Therefore, POS may act as a protective factor against customer mistreatment. That is, customer mistreatment may be less likely to transfer into perceived goal blockage for employees with higher levels of POS, because they are more confident that the organization will support them and will not interpret customer mistreatment as reflecting negatively on their service quality (i.e., failing in accomplishing their tasks). Hence, we expect

Hypothesis 5: POS moderates the within-person relationship between daily customer mistreatment and employee rumination at night, such that this positive association is weaker for people with higher levels of POS than for people with lower levels of POS.

In addition to testing above hypotheses, we are interested in addressing two research questions with exploratory analyses. First, although we hypothesized only the effects of Day t 's customer mistreatment on Day t 's rumination at night and Day $t + 1$'s morning negative mood, our daily-diary research design offers a unique opportunity for us to examine the extent to which Day t 's customer mistreatment has longer term effects on rumination (e.g., on Days $t + 1$, $t + 2$) and morning negative mood (e.g., on $t + 2$, $t + 3$). In particular, we are interested in examining whether effects of Day t 's customer mistreatment and rumination may linger after influencing Day $t + 1$'s morning negative mood. Second, although we hypothesized rumination's mediation effect only at the within-person level, we are interested in examining whether this mediation effect also holds at the between-person level. In other words, we examine whether the differences in the total amount of mistreatment received from customers during the study period (i.e., 2 weeks) are also predictive of employees' general negative emotional experience via the cognitive mechanism of rumination. Testing this mediation effect at the between-person level allows us to gauge the cumulative impact of short-term unpleasant interactions with customers on employees' emotional well-being.

Method

Participants and Procedure

Two hundred and fifty customer service representatives from a call center located in Shen Zhen, China, were recruited to participate in the current study. The study announcement, along with a letter assuring confidentiality and voluntary participation, was distributed to them by the human resource department. Among all the customer service representatives, 149 (59.6%) completed the initial assessment and the daily surveys. These service representatives provide customer service support to telephone and cell phone related products and services. They typically respond to between 60 and 90 calls per day. The average length of call is about 4 minutes. Participants' average age was 24.43 years ($SD = 2.29$), average years of education was 14.46 years ($SD = 1.97$), and average job tenure was 1.21 years ($SD = 1.19$).

The data collection included two phases. In the first phase, participants completed a questionnaire for demographic and

individual-level variables (referred to as the *initial assessment* hereafter). About two weeks after the first phase, daily survey (i.e., the second phase) was conducted for two consecutive weeks (i.e., 10 weekdays). During this phase, with the company's permission, each morning around 8:00 a.m. (the start of the workday), participants completed a survey reporting their rumination in the previous night and negative mood they experienced in that morning (referred to as the *daily morning survey* thereafter). Each afternoon around 4:50 p.m. (10 minutes before the end of the workday at 5:00 p.m.), participants completed another survey reporting the customer mistreatment happened on that day (referred to as the *daily afternoon survey* thereafter). Both daily morning and afternoon surveys were distributed onsite by research assistants in the paper-pencil format to each participant. Therefore, the participants were able to finish the survey during the company time and directly and immediately handed the completed survey to research assistants. This, again, assured the participants of the confidentiality of the survey responses from the management. If participants failed to complete a survey in a particular assessment window (morning or afternoon), they had no opportunity to make up that survey, thus reducing the error of retrospective reporting. Participants received 120 Chinese yuan (about 18 U.S. dollars) as a token of appreciation for completing all phases of data collection.

Because our model hypothesized the relationships between daily customer mistreatment (measured in Day t 's afternoon survey), rumination at night (measured in Day $t + 1$'s morning survey), and negative mood in the next morning (measured in Day $t + 1$'s morning survey), the maximum number of useful daily observations provided by each participant was eight (for each workweek, afternoon surveys from Days 1–4 were matched up with morning surveys from Days 2–5). Participants completed 1,189 out of total possible 1,192 daily surveys (149 participants \times 8 days), resulting in a near perfect compliance rate (99.7%). This unusually high compliance rate is likely due to the combination of company sponsorship, use of company time to fill out the daily surveys, and the financial incentive offered for completing the two phases of data collection. The initial assessment and the daily surveys were all conducted in Chinese. The translation-back translation procedure (Brislin, 1970) was followed to ensure the accuracy of the translation of the English-based measures into Chinese.

Initial Assessment

Service rule commitment. We adapted a five-item scale from Gosserand and Diefendorff (2005) to assess employees' commitment to the call center's customer service rules. These rules were explicitly listed in the company's service policy handbook and described the company's requirement for customer service employees to treat customers in a professional, friendly, and patient manner when responding to phone calls. Each customer service representative had a copy of this service policy handbook, and the service rules had been specifically explained and emphasized to each of them during the job entry training. The five items we used include "When serving customers, I am committed to conforming to my company's customer service rules," "When serving customers, it's hard to take these service rules seriously" (reverse coded item), "Quite frankly, I don't care if I conform to these service rules or not" (reverse coded item), "I think these service rules given by my organization are important to comply with," and

"When serving customers, it would not take much to make me abandon these service rules" (reverse coded item). Respondents were asked to rate the extent to which they agreed with each statement (1 = *strongly disagree* to 5 = *strongly agree*). The α reliability coefficient for this scale was .85.

Perceived organizational support. POS was measured with a shortened seven-item version of the perceived organizational support scale from Eisenberger et al. (1986). One sample item is "Help is available from the organization when I have a problem." Responses range from 1 (*strongly disagree*) to 7 (*strongly agree*). Previous studies have shown good reliability and construct validity of this shortened scale (e.g., Takeuchi et al., 2009; Wang & Takeuchi, 2007). The alpha reliability for this scale in the current study was .89.

Neuroticism. We measured trait neuroticism as a control variable to rule out the tendency to experience negative affect as the driver of the cross-level interactions. It is assessed with a five-item shortened version of McCrae and Costa's (1987) Big Five personality markers. This five-item measure has been used in a Chinese sample before and demonstrated desirable construct validity and reliability (Wong & Law, 2002). Participants responded to each item on a 9-point Likert scale (1 = *extremely inaccurate*, 9 = *extremely accurate*). For the current sample, the alpha reliability coefficient was .75.

Daily Afternoon Survey

Daily customer mistreatment. We used an 18-item measure (Wang et al., 2011) to assess the daily mistreatment employees received from their customers in the afternoon survey. This measure was developed specifically for capturing customer mistreatment in the call-center customer service interaction situations. When responding to the items, participants received this instruction: "The following statements describe many situations that may occur in your interaction with customers. Please think over your work today and indicate the frequency that your customers treated you in the following ways during today's work." The response scale ranged from 0 (*never*) to 4 (*all the time*). Several sample items are "yelled at you," "got angry at you even over minor matters," and "refused to listen to you." The mean alpha reliability for this scale across 8 days was .96 ($SD = .01$). The intraclass correlation coefficient, or ICC(1), of daily customer mistreatment was .55, $F(148, 1040) = 10.53$, $p < .001$, suggesting that there was significant variance at the between-person level for this variable.

Daily Morning Survey

Rumination at night. Rumination on the negative experience with customers was measured in the morning survey with an eight-item scale adapted from McCullough, Bono, and Root (2007). Participants used a 6-point scale ranging from 0 (*not at all true of me*) to 5 (*extremely true of me*) to indicate how much on the previous night they had the experiences described by the items. A sample item is "Last night, I could not stop thinking about the bad experience my clients gave me yesterday." The mean alpha reliability for this scale across 8 days was .97 ($SD = .01$). ICC(1) of rumination at night was .53, $F(148, 1040) = 10.17$, $p < .001$, suggesting that there was significant variance at the between-person level for this variable.

Negative mood in the morning. An eight-item measure of daily negative mood from Mohr et al. (2005) was used in the morning survey to measure employees' negative mood in the morning. Participants were asked to indicate the extent to which they agreed that each of the eight words described their mood this morning (response scale ranged from 1 = *strongly disagree* to 5 = *strongly agree*). Two sample items are "sad" and "nervous." The mean alpha reliability of this scale across 8 days was .92 ($SD = .01$). ICC(1) of morning negative mood was .52, $F(148, 1040) = 9.88, p < .001$, suggesting that there was significant variance at the between-person level for this variable.

Analytical Strategy

Due to the nested nature of the data (days nested within individuals) and our focus on testing a mediation model at within-person level, we followed the recommendations of Preacher, Zyphur, and Zhang (2010) and used path analysis in the multilevel structural equation modeling (MSEM) framework in Mplus 5.2 (Muthén & Muthén, 2008) to analyze the data. The MSEM procedure partitions the variances of daily observations into two components, the between-person variances and within-person variances, thus ensuring that the estimation of the within-person effects and between-person effects will not contaminate each other (i.e., similar to the person-mean centering used in hierarchical linear modeling that ensures the accurate estimation of within-person effects). This ability to estimate Level 1 effects while taking account of Level 2 effects makes the procedure superior to running two separate within- and between-persons SEMs. Multilevel SEM also allows tests of cross-level moderation, which cannot be examined in running separate within- and between-persons SEMs. Further, MSEM allows for simultaneous estimation of the parameters in the mediation model, offering more robust estimates of standard errors of parameters than piecemeal approaches such as a series of hierarchical linear models (for detailed mathematical explanations and simulation evidence, see Preacher et al., 2010).

To test within-person main effects and mediation effects, we first estimated an MSEM model (M_1) that did not include service rule commitment and perceived organizational support as cross-level moderators. In this model, at the within-person level, Day t 's rumination at night was modeled as a function of Day t 's customer mistreatment and Day $t - 1$'s rumination at night. In addition, Day $t + 1$'s morning negative mood was modeled as a function of Day t 's rumination at night and Day t 's morning negative mood. The direct effect of Day t 's customer mistreatment on Day $t + 1$'s morning negative mood was also controlled. At the between-person level, following Preacher et al.'s (2010) recommendation, we allowed all the constructs to covary, including the trait neuroticism as a control variable. Mediation at the within-person level was tested via a Monte Carlo simulation procedure using the open-source software R (available at <http://www.quantpsy.org>). This procedure was used to accurately reflect the asymmetric nature of the sampling distribution of an indirect effect in multilevel models (Preacher et al., 2010).¹

To test the cross-level moderation effects, we estimated a model (M_2) on the basis of M_1 that included service rule commitment and perceived organizational support as Level 2 predictors of the within-person random slope between Day t 's customer mistreat-

ment and Day t 's rumination at night. Neuroticism was controlled when testing these cross-level moderation effects.

Results

Preliminary Analysis

Table 1 presents the means, standard deviations, and between-subject correlations among all study variables. Within-subject correlations among daily measures are also presented. At the daily level, customer mistreatment was significantly correlated with rumination ($r_{\text{within}} = .42, p < .01$), and rumination was significantly correlated with morning negative mood ($r_{\text{within}} = .38, p < .01$). These findings provided preliminary support for Hypotheses 1 and 2.

Testing Main Effects and the Mediation Effect

Table 2 presents the parameter estimates and their 95% confidence intervals (CIs) in the MSEM model (i.e., M_1) described earlier.² Inspection of the within-person level model shows that the mean value of the random slope for Day t 's customer mistreatment on Day t 's rumination was significant ($\gamma_{10} = .27, p < .01$), after controlling for Day $t - 1$'s rumination. This indicated that on days that customer service representatives received more mistreatment from their customers, they were more likely to ruminate on those negative interactions with customers at night. Thus, Hypothesis 1 was supported. Further, the variance of this random slope was significant ($\tau_1 = .32, p < .01$), suggesting that there was sufficient variance in this random slope that could be further accounted for by Level 2 predictors. Using Snijders and Bosker's (1999) formulas, we also found that the two predictors accounted for 17% of the within-person level variance in Day t 's rumination.

¹ The Monte Carlo simulation procedure uses parameter point estimates and their asymptotic variances and covariances to generate random draws from the parameter distributions (i.e., conducting parameter bootstrap). In each draw, the indirect effect is computed following Formula 5 offered by Bauer, Preacher, and Gil (2006, p. 147) in calculating 1-1-1 mediation effect in the multilevel model. This procedure is repeated a very large number of times, and the resulting simulation distribution of the indirect effect is used to obtain a percentile confidence interval (C) around the observed indirect effect. The key feature of the parametric bootstrap is that only the parameter estimates are assumed to be normally distributed. No assumptions are made about the distribution of the indirect effect, which typically is not normally distributed. Advantages of this procedure are that it (a) yields asymmetric CIs that are faithful to the skewed sampling distributions of indirect effects, (b) does not require raw data to use, and (c) is very easy to implement (Preacher, Zyphur, & Zhang, 2010).

² We also controlled for the demographics (i.e., age, years of education, and job tenure), order effect (whether there is a linear trend in either morning negative mood or rumination across eight days of study), and day-of-the-week effect (using Friday as the reference, three dummy variables for Tuesday, Wednesday, and Thursday were controlled). None of the coefficients for these effects were significant ($ps > .10$), and the finding patterns were virtually the same (i.e., maintained same signs and significance levels) as in M_1 and M_2 . For the purpose of brevity, we did not report findings with these control variables. Interested readers may contact the first author for more details. In addition, the findings in M_1 and M_2 were also replicated in SAS Proc Mixed with the RE-AR (1) variance-covariance structure (i.e., random effects plus first-order autoregression structure; Wanberg, Zhu, Kanfer, & Zhang, 2012). The results were virtually the same when the first-order autoregressive effects were modeled.

Table 1
Means, Standard Deviations, and Correlations Between Variables

Variable	<i>M</i>	Within-person <i>SD</i>	Between-person <i>SD</i>	1	2	3	4	5	6	7	8	9	10	11
1. Age	24.43		2.29	—										
2. Years of education	14.46		1.97	.04	—									
3. Job tenure	1.21		1.19	.21*	-.07	—								
4. Neuroticism	3.85		1.08	-.05	.18*	-.10	—							
5. Perceived organizational support	4.23		1.16	-.02	-.17*	-.16	(.75)	—						
6. Service rule commitment	3.66		0.61	.20*	-.15	.09	-.02	(.89)	—					
7. Daily customer mistreatment	0.51	0.61	0.55	-.17*	-.19*	-.01	.05	.15	-.06	—				
8. Rumination at night (<i>t</i> - 1)	1.44	0.89	0.68	-.08	-.11	.01	.08	-.20*	.20**	(.96)	—			
9. Rumination at night (<i>t</i>)	1.44	0.89	0.69	-.11	-.12	-.03	.07	-.14	.55**	.98**	.63	—		
10. Morning negative mood (<i>t</i>)	1.75	0.77	0.62	-.04	-.08	-.01	.14	-.14	.56**	.39**	.46**	.25**	—	
11. Morning negative mood (<i>t</i> + 1)	1.74	0.78	0.64	-.08	-.07	-.01	.13	-.16	.47**	.40**	.50**	.98**	.92**	—

Note. Correlations below the diagonal represent between-person correlations (*N* = 149). Within-person variables were averaged across days to form the between-person variables. Correlations above the diagonal represent within-person correlations (*N* = 1,189). Coefficient alpha estimates of reliability are in parentheses on the diagonal. For within-person variables, their reliabilities were the mean alphas across 8 days of observation.
* *p* < .05. ** *p* < .01.

The mean value of the random slope for Day *t*'s rumination on day *t* + 1's morning negative mood was also significant ($\gamma_{20} = .16, p < .01$), after controlling for Day *t*'s morning negative mood and the direct effect of Day *t*'s customer mistreatment. It suggests that customer service representatives were likely to experience stronger negative mood in the next morning when they ruminated more on customer mistreatment at night. Thus, Hypothesis 2 was supported. In total, 31% of the within-person level variance in Day *t* + 1's morning negative mood was accounted for by the predictors.

Using Monte Carlo simulation procedure with 20,000 replications, we found that the indirect effect for day *t*'s customer mistreatment → Day *t*'s rumination → Day *t* + 1's morning negative mood was 0.043, with a 95% bias-corrected bootstrap (BCB) confidence interval (CI) of [0.012, 0.084]. This finding indicates that Day *t*'s customer mistreatment was positively and significantly related to Day *t* + 1's morning negative mood of customer representatives via their day *t*'s rumination at night, providing support for Hypothesis 3. It should be noted that the direct effect of Day *t*'s customer mistreatment on Day *t* + 1's morning negative mood was also significant ($\gamma_{30} = .10, p < .05$), suggesting that there may be mechanisms other than cognitive rumination that can prolong the negative emotional reactions induced by customer mistreatment.

Testing Cross-Level Moderation Effects

Table 3 presents the parameter estimates and their 95% CIs for the MSEM model (i.e., *M*₂) that included service rule commitment and perceived organizational support as predictors of the within-person random slope between Day *t*'s customer mistreatment and Day *t*'s rumination at night. Figure 2 summarizes all the hypotheses-related coefficients in *M*₂. After controlling for neuroticism, service rule commitment was significantly and positively related to the customer mistreatment-rumination random slope ($\gamma_{12} = .16, p < .05$), whereas perceived organizational support was significantly and negatively related to the customer mistreatment-rumination random slope ($\gamma_{13} = -.17, p < .05$). Following the procedure illustrated by Cohen, Cohen, West, and Aiken (2003), we plotted both interactions at conditional values of the moderators (i.e., 1 *SD* above and below the means) in Figures 3 and 4. Further, following Preacher, Curran, and Bauer's (2006) approach,³ simple slope analysis revealed that when service rule commitment was high (i.e., 1 *SD* above the mean), daily customer mistreatment's predictive effect was positive and significant (simple slope = .36, *p* < .01), whereas when service rule commitment was low (i.e., 1 *SD* below the mean), daily customer mistreatment's predictive effect was not significant (simple slope = .16, *p* > .05). In addition, we found that when perceived organizational support was high, daily customer mistreatment's predictive effect was not significant (simple slope = .06, *p* > .05), whereas when perceived organizational support was low, daily customer mistreatment's predictive effect was positive and significant (simple slope = .46, *p* < .01). Both figures and the simple slope analyses

³ Following one anonymous reviewer's suggestion, we used the online calculator at <http://www.quantpsy.org/interact/hlm2.htm> to conduct the statistical tests of the simple slopes for the cross-level moderation and between-person level moderation effects.

Table 2

Unstandardized Coefficients of MSEM Model (M_1) for Testing Main Effects and Mediation Effects

Effect type	Coefficient	SE	95% CI
Within-person effects			
Random slopes			
β_1 : Day t 's customer mistreatment \rightarrow Day t 's rumination			
Intercept (γ_{10})	0.27**	0.09	[0.09, 0.44]
Variance (τ_1)	0.32**	0.11	[0.11, 0.53]
β_2 : Day t 's rumination \rightarrow Day $t + 1$'s morning negative mood			
Intercept (γ_{20})	0.16**	0.04	[0.08, 0.23]
Variance (τ_2)	0.04**	0.02	[0.01, 0.07]
β_3 : Day t 's customer mistreatment \rightarrow Day $t + 1$'s morning negative mood			
Intercept (γ_{30})	0.10*	0.05	[0.01, 0.19]
Variance (τ_3)	0.13*	0.06	[0.02, 0.24]
Fixed slopes			
β_4 : Day $t - 1$'s rumination \rightarrow Day t 's rumination	0.12**	0.03	[0.06, 0.18]
β_5 : Day t 's morning negative mood \rightarrow Day $t + 1$'s morning negative mood	0.18**	0.03	[0.13, 0.24]
Variances			
Day t 's customer mistreatment	0.23**	0.03	[0.17, 0.29]
Day $t - 1$'s rumination	0.36**	0.02	[0.32, 0.41]
Day t 's morning negative mood	0.24**	0.02	[0.20, 0.27]
Residual variances			
Day t 's rumination	0.34**	0.02	[0.30, 0.37]
Day $t + 1$'s morning negative mood	0.19**	0.01	[0.17, 0.22]
Between-person effects			
Variances			
Day t 's customer mistreatment	0.29**	0.04	[0.21, 0.37]
Day t 's rumination	0.37**	0.08	[0.20, 0.53]
Day $t + 1$'s morning negative mood	0.31**	0.07	[0.18, 0.45]
Day $t - 1$'s rumination	0.43**	0.10	[0.23, 0.63]
Day t 's morning negative mood	0.36**	0.09	[0.19, 0.53]
Neuroticism	1.16**	0.18	[0.80, 1.52]

Note. Level 1 $N = 1,189$; Level 2 $N = 149$. MSEM = multilevel structural equation modeling; SE = standard error; CI = confidence interval.

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

suggest that the positive relationship between daily customer mistreatment and rumination at night was stronger for customer service representatives who had higher levels of service rule commitment but was weaker for customer service representatives who perceived higher levels of organizational support, supporting Hypotheses 4 and 5 respectively. Further, comparing the variance for the customer mistreatment–rumination random slope in M_1 (i.e., $\tau_1 = .32, p < .01$) and the residual variance for the same random slope in M_2 (i.e., $\sigma_{\epsilon 1}^2 = .28, p < .01$), we found that service rule commitment and perceived organizational support together accounted for a substantial amount of the variance (about 13%) in this random slope.⁴

Supplemental Analysis: Persistence of Relationships

We conducted supplemental analyses to investigate the persistence of the effects of Day t 's customer mistreatment on rumination and negative mood. To do so, we organized data into 3-day segments (i.e., $t, t + 1, t + 2$) and 4-day segments (i.e., $t, t + 1, t + 2, t + 3$) to test the within-person effects of Day t 's customer mistreatment on later days' rumination (Day $t + 1$ and Day $t + 2$, respectively) and morning negative mood (Day $t + 2$ and Day $t + 3$, respectively).

Figure 5 presents the results based on the data from 3-day segments ($N = 891$). Controlling for Day t 's rumination and Day $t + 1$'s customer mistreatment, Day t 's customer mistreatment was

not significantly related to Day $t + 1$'s rumination. Nevertheless, the indirect effect of Day t 's customer mistreatment on Day $t + 1$'s rumination via Day t 's rumination was significant (indirect effect = 0.022, 95% BCB CI [0.005, 0.046]), suggesting that the persistent effect of Day t 's customer mistreatment on Day $t + 1$'s rumination manifested through its effect on Day t 's rumination. Further, controlling for effects of Day t 's customer mistreatment, Day $t + 1$'s morning negative mood, customer mistreatment, and rumination, Day t 's rumination was not directly related to Day $t + 2$'s morning negative mood. Rather, Day t 's rumination had sig-

⁴ Although we did not hypothesize moderated mediation at the within-person level, we estimated the indirect effects of daily customer mistreatment at lower (-1 SD) and higher ($+1$ SD) values of service rule commitment and POS on morning negative mood in post hoc analyses. We found that the within-person indirect effect was significant when service rule commitment was high (indirect effect = 0.057, 95% CI [0.020, 0.106]) but not significant when service rule commitment was low (indirect effect = 0.026, 95% CI [-0.005, 0.064]). The effect difference between the two conditions was 0.031, 95% CI [0.004, 0.067], suggesting that the indirect effect via rumination at night was significantly higher when service rule commitment was high versus low. We also found that the within-person indirect effect was not significant when POS was high (indirect effect = 0.010, 95% CI [-0.031, 0.055]) but significant when POS was low (indirect effect = 0.073, 95% CI [0.026, 0.136]). The effect difference between the two conditions was 0.063, 95% CI [0.005, 0.141], suggesting that the indirect effect via rumination at night was significantly higher when POS was low versus high.

Table 3
Unstandardized Coefficients of MSEM Model (M_2) for Testing Moderation Effects

Effect type	Coefficient	SE	95% CI
Within-person effects			
Random slopes			
β_1 : Day t 's customer mistreatment \rightarrow Day t 's rumination			
Intercept (γ_{10})	0.26**	0.09	[0.09, 0.43]
Neuroticism (γ_{11})	0.04	0.09	[-0.15, 0.22]
Service rule commitment (γ_{12})	0.16*	0.07	[0.02, 0.29]
Perceived organizational support (γ_{13})	-0.17*	0.08	[-0.33, -0.01]
Residual variance ($\sigma_{\epsilon 1}^2$)	0.28**	0.10	[0.08, 0.48]
β_2 : Day t 's rumination \rightarrow Day $t + 1$'s morning negative mood			
Intercept (γ_{20})	0.16**	0.04	[0.08, 0.23]
Variance (τ_2)	0.04**	0.02	[0.01, 0.07]
β_3 : Day t 's customer mistreatment \rightarrow Day $t + 1$'s morning negative mood			
Intercept (γ_{30})	0.10*	0.05	[0.01, 0.19]
Variance (τ_3)	0.13*	0.06	[0.02, 0.24]
Fixed slopes			
β_4 : Day $t - 1$'s rumination \rightarrow Day t 's rumination	0.12**	0.03	[0.06, 0.18]
β_5 : Day t 's morning negative mood \rightarrow Day $t + 1$'s morning negative mood	0.18**	0.03	[0.13, 0.24]
Variances			
Day t 's customer mistreatment	0.23**	0.03	[0.17, 0.29]
Day $t - 1$'s rumination	0.36**	0.02	[0.31, 0.42]
Day t 's morning negative mood	0.24**	0.02	[0.20, 0.28]
Residual variances			
Day t 's rumination	0.34**	0.02	[0.29, 0.38]
Day $t + 1$'s morning negative mood	0.19**	0.01	[0.17, 0.21]
Between-person effects			
Variances			
Day t 's customer mistreatment	0.29**	0.05	[0.18, 0.40]
Day t 's rumination	0.35**	0.10	[0.15, 0.56]
Day $t + 1$'s morning negative mood	0.31**	0.08	[0.15, 0.48]
Day $t - 1$'s rumination	0.43**	0.12	[0.18, 0.67]
Day t 's morning negative mood	0.36**	0.10	[0.17, 0.56]
Neuroticism	1.16**	0.21	[0.75, 1.57]
Service rule commitment	0.37**	0.06	[0.25, 0.48]
Perceived organizational support	1.34**	0.20	[0.95, 1.73]

Note. Level 1 $N = 1,189$; Level 2 $N = 149$. MSEM = multilevel structural equation modeling; SE = standard error; CI = confidence interval.

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

nificant indirect effects on Day $t + 2$'s morning negative mood via Day $t + 1$'s morning negative mood (indirect effect = 0.043, 95% BCB CI [0.027, 0.065]) and Day $t + 1$'s rumination (indirect effect = 0.020, 95% BCB CI [0.007, 0.035]). This suggests that the persistent effect of Day t 's rumination on Day $t + 2$'s morning negative mood manifested through its effects on Day $t + 1$'s morning negative mood and rumination. Overall, the total indirect effect of Day t 's customer mistreatment on Day $t + 2$'s morning negative mood was also significant (total indirect effect = 0.035, 95% BCB CI [0.013, 0.060]), suggesting that the effect of Day t 's customer mistreatment on negative mood persisted to Day $t + 2$'s morning.

Results based on the data from 4-day segments ($N = 593$; we do not present a figure for the sake of brevity) showed that Day t 's customer mistreatment was not directly related to Day $t + 2$'s rumination. Further, the total indirect effect of Day t 's customer mistreatment on Day $t + 2$'s rumination was not significant, suggesting that the effect of Day t 's customer mistreatment on rumination ceased after two days. Similarly, Day t 's rumination was not directly related to Day $t + 3$'s morning negative mood. In addition, the total indirect effect of Day t 's rumination on Day $t + 3$'s morning negative mood was not significant, suggesting that the

effect of Day t 's rumination on morning negative mood ceased after three days. Overall, the total indirect effect of Day t 's customer mistreatment on Day $t + 3$'s morning negative mood was not significant, suggesting that the effect of Day t 's customer mistreatment on negative mood did not persist to Day $t + 3$'s morning.

Supplemental Analysis: Mediation Effect at the Between-Person Level

To examine the between-person level mediation effect of rumination, we conducted MSEM analyses to model the indirect path of customer mistreatment \rightarrow rumination \rightarrow negative mood at the between-person level on the basis of M_1 (see the Appendix for parameter estimates of this model). This indirect path was significant (indirect effect = 0.249, 95% BCB CI [0.162, 0.348]), supporting the mediation effect at the between-person level.

Discussion

The current study represents one of the first attempts to use a cognitive mechanism (i.e., rumination) to explain the within-

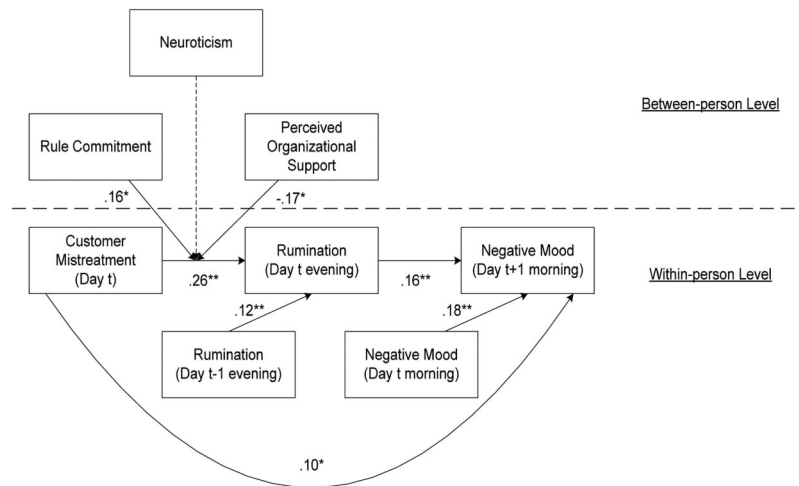


Figure 2. Final model (M_2) with unstandardized coefficient estimates. Neuroticism is a control variable at the between-person level. Dotted line denotes nonsignificant path. * $p < .05$. ** $p < .01$.

person fluctuation in negative emotional experience triggered by customer mistreatment. We found that on days that a service employee received more (vs. less) customer mistreatment, he or she ruminated more (vs. less) at night about negative experiences with customers, which in turn led to higher (vs. lower) levels of negative mood experienced in the next morning. In addition, our supplemental analyses showed that the effect of daily customer mistreatment lasted to the next day on rumination and lasted for 2 days on morning negative mood. Further, we found that service rule commitment and POS moderated the within-person effect of customer mistreatment on rumination, such that this effect was stronger among those who had higher (vs. lower) levels of service rule commitment but weaker among those with higher (vs. lower) levels of POS.

Theoretical Implications

First, the current findings provided support to the mechanism suggested by cognitive theories of rumination. Although concep-

tualizing customer mistreatment as signaling goal failure is different from previous studies that conceptualized customer mistreatment either as interactional injustice (e.g., Rupp & Spencer, 2006; Spencer & Rupp, 2009) or excessive job demands (e.g., Dormann & Zapf, 2004; Grandey et al., 2004; Wang et al., 2011), all these conceptualizations are important to consider when examining different types of outcomes of customer mistreatment. For example, when studying immediate emotional reactions to customer mistreatment (e.g., anger, guilt, and frustration), conceptualizing customer mistreatment as interactional injustice allows the researchers to apply the injustice-induced emotional process to explain the outcomes (e.g., Rupp & Spencer, 2006; Spencer & Rupp, 2009). Further, when studying self-regulation outcomes of customer mistreatment (e.g., customer-directed sabotage), conceptualizing customer mistreatment as excessive job demands allows researchers to apply the resource depletion mechanism to explain the outcomes (e.g., Grandey et al., 2004; Wang et al., 2011). Extending this literature, the current study focuses on the cognitive rumination process triggered by customer mistreatment. This approach sheds

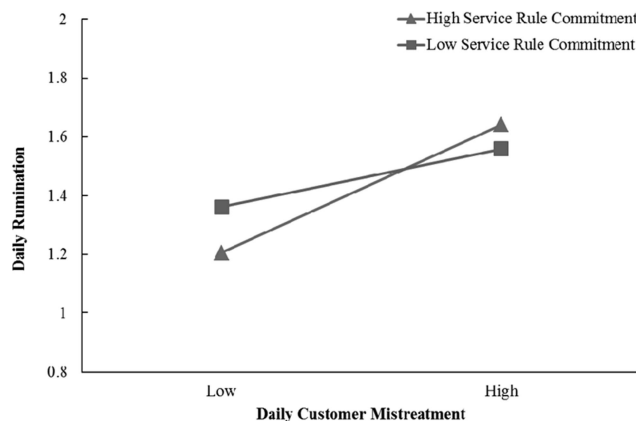


Figure 3. Service rule commitment moderates the effect of Day t 's customer mistreatment on Day t 's daily rumination.

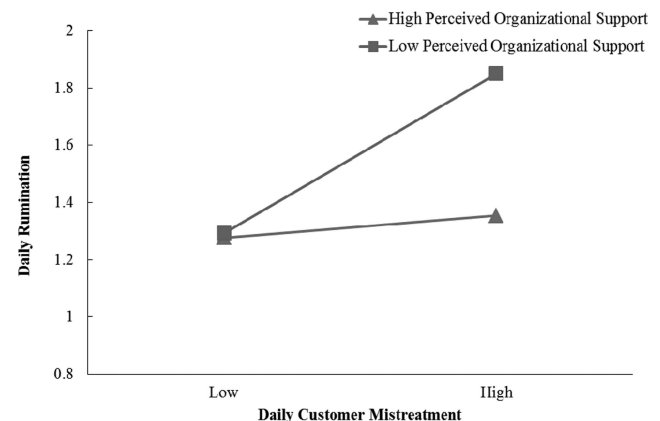


Figure 4. Perceived organizational support moderates the effect of Day t 's customer mistreatment on Day t 's daily rumination.

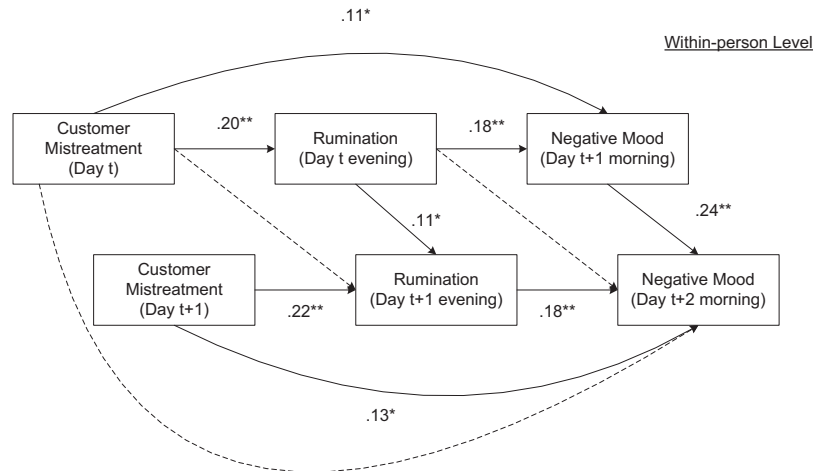


Figure 5. Within-person relationships between customer mistreatment, rumination, and negative mood for 3-day intervals. Dotted lines denote nonsignificant paths. * $p < .05$. ** $p < .01$.

light on how the negative effect of customer mistreatment goes beyond the immediate service episode and persists to influence employees' emotions at a later time. Our findings thus add to prior studies on the different psychological processes of customer mistreatment to provide a more comprehensive account for different outcomes of customer mistreatment.

Second, the current findings extended previous theorizing in the stress-coping literature by emphasizing the important role of maladaptive cognitive information processing. Although previous literature on the stressor-strain relationship at work has examined employees' coping mechanisms to a large extent (e.g., Jex, Bliese, Buzzell, & Primeau, 2001; Schaubroeck & Merritt, 1997), little research has been done to investigate the maladaptive coping responses that are cognition based, such as rumination. Our findings suggest that rumination is not a response that produces positive outcomes of the stressful situation; thus, it differs from traditionally studied coping mechanisms (e.g., problem-focused coping and emotion-focused coping). In fact, researchers have consistently pointed out that coping mechanisms (even avoidance coping) are generally adaptive in terms of managing the initial negative affect generated by stressful situations, whereas rumination is maladaptive in terms of prolonging the initial negative affect generated by stressful situations, even though rumination may be perceived by individuals to be functional in terms of reflecting how things went wrong and how they might improve in the future to attain the goal (Nolen-Hoeksema et al., 2008; Skinner, Edge, Altman, & Sherwood, 2003). The current findings suggest that it may be fruitful to consider this type of response, especially in understanding the robustness of the negative effect engendered in a stressful situation. Doing so is particularly important when the stressors are not constant in the environment (e.g., customer mistreatment), because cognitive processing such as employee's memory and attention has to be incorporated into theorizing to explain how the negative effect of temporal stressors could sustain.

Third, the current study extended cognitive rumination theories by investigating a goal-importance-related moderator (i.e., service rule commitment) and a moderator that provides protection from goal failure (i.e., POS). Although previous research (e.g., Nolen-

Hoeksema, 1991; Nolen-Hoeksema & Davis, 1999) has found considerable variability in the tendencies for individuals to engage in rumination when facing goal failure, none of the research considered goal-related factors as potential boundary conditions for the rumination process. Our findings regarding the exacerbating effect of service rule commitment is consistent with previous theorizing (Edwards, 1992) and empirical findings (e.g., Liu, Wang, Zhan, & Shi, 2009) in the stress-coping literature that individuals are more likely to interpret goal-hindrance incidents as stressful and are more reactive to those incidents when they are highly motivated to achieve that goal. The protective effect of POS is consistent with previous meta-analysis that suggested POS helped reduce the negative consequences of stressors and unfair treatment at work (Rhoades & Eisenberger, 2002; also see similar protective effect of social support, Wang, Liu, Zhan, & Shi, 2010). Taken together, the moderating effects advance our understanding regarding the contingencies of the negative consequences of customer mistreatment.

Finally, supplemental analyses revealed that Day t 's customer mistreatment could indirectly influence Day $t + 1$'s rumination and Day $t + 2$'s morning negative mood. These findings suggest that customer mistreatment experiences might have a cumulative effect in terms of influencing employees' maladaptive cognition and general emotional climate beyond the short-term (e.g., day-level) reactions. Further supplemental analyses revealed that the total amount of mistreatment received from customers during the study period (i.e., 2 weeks) was also predictive of employees' general negative emotional experience via the cognitive mechanism of rumination. This significant indirect effect at the between-person level bridges and extends the previous findings from lab studies (e.g., Rupp & Spencer, 2006; Spencer & Rupp, 2009) and cross-sectional field studies (e.g., Dormann & Zapf, 2004; Grandey et al., 2004), allowing us to gauge the cumulative impact of the short-term unpleasant interactions with customers on employees' emotional well-being. It is consistent with our theoretical framework, which specifies that the daily customer mistreatment received by employees could be conceptualized as the building block that contributes to employees' general goal-blockage expe-

rience at work (i.e., overall customer mistreatment during the study period). In other words, a bottom-up process (Chan, 1998; Kozlowski & Klein, 2000) might explain how the day-to-day negative interactions with the customers could aggregate to form different amounts of goal-blockage experience received by different service employees during the study period. This total amount of goal-blockage experience was then associated with the service employee's overall conscious thinking directed toward failure in service goal pursuit (i.e., rumination), and eventually resulted in the employee's pervasive "emotional climate" (i.e., the between-person component of mood; Morris, 1989; Watson, 2000) for an extended time period.

The resemblance between the within-person effects and between-person effects revealed in this multilevel model also informs the possibility for further building a homologous multilevel theory to explicate the within-person and between-person effects of customer mistreatment. According to Chen, Bliese, and Mathieu's (2005) typology of multilevel homology, the findings presented in the Appendix were exploratory and indicated similar relationships at both within- and between-person levels, supporting the configural similarity of the effects. Therefore, they help to set up a metaphoric theory of the multilevel effects of customer mistreatment, suggesting that the constructs and mechanisms could maintain theoretical similarity across different levels. However, to move the theory building forward, researchers need to clarify the exact conceptual relationship between the within-person and between-person constructs (i.e., customer mistreatment, rumination, and negative mood). In particular, it is possible that customer mistreatment at the between-person level is formed through different mechanisms from customer mistreatment at the within-person level. For instance, the between-person differences in customer mistreatment could be due to job differences (e.g., offering different services or being responsible for different products), differences in interpersonal effectiveness, or differences in how individuals interpret social interactions. Therefore, to the extent that these factors are related to the aggregated customer mistreatment at the between-person level, the source of daily customer mistreatment could be conceptualized differently (e.g., to incorporate fluctuations in task-skill fit and perceptual bias on the daily level). Thus, other theoretical mechanisms may exist to link customer mistreatment to rumination at both levels.

Practical Implications

The current findings highlight the need for reducing ruminative thoughts for service employees, so the negative effect of customer mistreatment will not persist. Previous studies have demonstrated that starting a day with a negative mood is likely to lead to faked rather than authentic positive emotions toward customers and lowered threshold to trigger employee sabotage behavior against customers during customer service interactions (e.g., Judge et al., 2009; Wang et al., 2011). In addition, numerous important work outcomes, such as momentary job satisfaction (Ilies & Judge, 2002), episodic performance (Troughakos, Beal, Green, & Weiss, 2008), organizational citizenship behavior (Ilies, Scott, & Judge, 2006), and counterproductive work behaviors (Yang & Diefendorff, 2009), have been shown to be predicted by temporal mood. Our findings suggest that blocking ruminative thoughts may be an important step to prevent the negative affect from prolonging and

forming into negative emotional experience for service employees. Toward this front, it may be beneficial for employees to engage in tasks and activities that could fulfill their self-goal pursuit after work. For example, Sonnentag, Binnewies, and Mojza (2008) suggested that employees might obtain mastery experience (i.e., experiences that provide opportunities for learning and success) from off-job activities such as participating in sport, learning a new hobby, or engaging in volunteer work. These mastery experiences may bring feelings of competence and accomplishment to employees and fulfill their implicit self-goals. Therefore, engaging employees in mastery experiences after work may be a good way to prevent rumination.

The buffering effect of POS also suggests that interventions could be designed at the organizational level by facilitating both formal policies and informal practices to improve the organization's support to service employees and make employees feel that the organization cares about employee well-being. For example, it is important for organizations to assure the employees that the service rules are not intended to encourage customer mistreatment and that not all customer mistreatment means service failure. As such, it is advisable for organizations to try to incorporate terms and protocols that aim to protect employees from customer mistreatment in their policies. This approach may also prove to be beneficial in terms of counteracting the exacerbating effect of service rule commitment, so that employees who are committed to their jobs and adhere to the organization's service requirement are protected.

It may also be important for organizations to train the employees to deal effectively with customer mistreatment. For example, organizations could help the employees improving their service recovery skills to deal with customer mistreatment that is due to service failure such that the service goal could eventually be accomplished (Liao, 2007). As such, the organization may take actions to channel the service employees' rumination toward focusing on improving their ability and skills to accomplish their service goals. For example, it may be good for service organizations to hold brief feedback and mentoring sessions after a day's work to go over the negative customer encounters that happened during the day and allow employees to ruminate productively with the guidance regarding how to deal with such situations in the future. In the long run, these actions may help organizations to keep valuable service employees and secure their welfare (Reynolds & Harris, 2006).

Limitations and Future Research

This study has several limitations. First, all the variables examined here were measured by self-report. Thus, a potential concern with the results is that they may be contaminated by common method variances. However, following the suggestions by Podsakoff, MacKenzie, Lee, and Podsakoff (2003), we conducted the two data-collection phases (i.e., initial assessment and daily survey) 2 weeks apart. In addition, we also separated the measures of daily predictor (i.e., daily customer mistreatment was measured in daily afternoon survey) and mediator (i.e., rumination at night was measured in daily morning survey) in time. Therefore, it is less likely that the relationships (especially the moderation relationship) found in the current study were due to common method bias. Nevertheless, future studies may use objective measures (e.g.,

customer service monitoring records) or other-reported measures (e.g., family-reported rumination behaviors) to replicate the current findings.

Second, because the previous night's rumination and current morning's negative mood were both measured in the morning of each workday, it is possible that the morning negative mood might have contaminated the recall about rumination at previous night due to the retrospective memory biases in responding to the measures. Although our design could not rule out this possibility of reversed causality, previous lab research has consistently suggested that this is not likely to be the case (Lyubomirsky & Nolen-Hoeksema, 1993, 1995; Nolen-Hoeksema & Morrow, 1993). Experimental studies have shown that rumination induction manipulations reliably lead to higher levels of negative mood, whereas general negative mood induction manipulations fail to activate event-specific memory (Nolen-Hoeksema et al., 2008). Further, the measure we used to assess previous night's rumination included items that describe specific ruminative behaviors in previous night. Due to the specificity of the item content, it is unlikely for the responses to these items to be biased by the negative mood. Nonetheless, future research may include another daily survey right before the participants go to bed to measure service employees' rumination at night.

Third, because our data were collected at the daily level, it was difficult for us to investigate whether the intensity and negativity of the customer mistreatment might impact service employees' cognitive and emotional reactions. Such investigation would require data measuring customer service interaction at the event level, because the same customer mistreatment behavior may be perceived to have different intensity and negativity by different employees, depending on the context of mistreatment as well as the perspective taken by the employees (e.g., Rafaeli et al., 2012). However, it is indeed possible that one major blowout with a customer may take a heavier toll than numerous minor incidents. It is also possible that the effect of a few highly negative service encounters is not equivalent to the effect of numerous mildly negative encounters at the aggregate between-person level. Therefore, it might not be reasonable to assume that different types of customer mistreatment would have the same negative effects on employees' cognitive and emotional reactions. As such, future studies should further investigate the potential effect of customer mistreatment type, as well as the intensity and negativity associated with service encounters, on influencing employees' cognitive and emotional reactions.

Fourth, the generalizability of the current findings may be limited by the sample used. For example, our Chinese sample may make our findings culture specific. Although the operation and managerial practice may be similar across call centers in China and other countries, Chinese culture has the tradition of viewing one's politeness in social interactions as a virtue. Therefore, this cultural environment may make customer mistreatment a more severe type of social transgression for service employees in China. As such, the current relationship between customer mistreatment and rumination may be stronger than those that would be observed in Western cultures. Future research should cross-validate the current findings with employee samples from different cultures. In addition, the daily customer mistreatment measure we used was relatively narrow due to the call-center research scenario, which may potentially limit the generalizability of the construct. Researchers

should develop more general measures for customer mistreatment to fit other service settings.

Finally, our study is limited to the scope of the mediator and moderator examined. For example, we found that the direct effect of daily customer mistreatment on morning negative mood was still significant after the mediation effect of rumination was accounted for. This clearly suggests that there might be other mediating mechanisms that could prolong the negative affect induced by customer mistreatment. One of these potential mechanisms may be emotional resource depletion. Customer mistreatment experienced at work may deplete service employees' emotional resources, which in turn may make it difficult for them to regulate negative affect experienced after work and prevent them from engaging in mood-improving activities (Wang et al., 2011). Another potential mediation mechanism may be mood manifesting as emotional residual (Morris, 1989). In particular, customer mistreatment may trigger strong negative emotional reactions. However, the emotional arousal may become weaker over time, and the target of the emotional reaction is blurred. With the loss of specificity of negative emotional feelings, negative mood follows. Further, the direct effect of customer mistreatment on negative mood, above and beyond rumination, could also be due to the expectations for future mistreatment. For example, it is possible that service employees who received more customer mistreatment on Day t would expect more of such mistreatment on Day $t + 1$, thus forming negative mood on Day $t + 1$'s morning.⁵

In terms of mediating processes, our study did not directly operationalize the goal nonattainment processes. Our moderating hypotheses do provide an indirect test of the goal-blockage conceptualization by showing that goal importance and protection from goal failure both can moderate the effects of failure on rumination, but we did not include a specific measure of either explicit or implicit goals. Future research might examine the goal-blockage account of rumination in two ways. One method that examines both explicit and implicit goal processes is to provide alternative indirect tests using other moderating variables that imply a goal-based explanation for observed effects. An alternative approach is to measure goal-related processes directly and determine if blockage of these goals directly leads to greater levels of rumination. However, traditional methods that ask employees to list their goals are more likely to capture only explicit goals (like specific productivity or performance targets) rather than implicit goals (like a general desire to be liked and respected by others). As such, a comprehensive measurement strategy will have to address both.

In terms of potential moderators, researchers are encouraged to examine attributions made for customer mistreatment by the employees.⁶ It is plausible that if an employee has an internal attribution regarding customer mistreatment, this employee may feel personally responsible for it. Consequently, the employee may ruminate more about the goal pursuit failure and focus more on figuring out how to improve his or her ability to accomplish the service goal. However, if the employee has an external attribution

⁵ We thank one anonymous reviewer for suggesting this potential mechanism to us.

⁶ We thank one anonymous reviewer for suggesting this potential moderator to us.

regarding customer mistreatment (i.e., perceiving it as out of his or her control), then he or she may not feel personally responsible for the goal failure. As such, the employee may be less likely to engage in rumination and may eventually disengage from the service goal pursuit, as he or she may perceive that service effort does not make a difference. Further, future research should investigate more team- and organizational-level conditions (i.e., policies, practice, and climate) that may buffer service employees' ruminative reaction to customer mistreatment. For example, team-level supervisory support climate (i.e., the general availability of key object, energy, and social resources team members can expect from their supervisor; Bacharach & Bamberger, 2007) may also be associated with individuals' vulnerability to goal failure-induced rumination.

Notwithstanding the limitations, this study applies the cognitive rumination theory to show how the negative effect of customer mistreatment goes beyond the service episode and persists to influence employees' emotions at a later time. The results provide strong support for a cognitive mechanism underlying this process, pointing out several promising avenues for future research in examining how effects of negative interpersonal interactions at work may persist and cumulate. The results also support the utility for conceptualizing customer service interaction as a goal attainment situation for service employees.

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Appendix

Unstandardized Coefficients of MSEM Model for Testing Within- and Between-Person Effects

Effect type	Coefficient	SE	95% CI
Within-person effects			
Random slopes			
β_1 : Day t 's customer mistreatment \rightarrow Day t 's rumination			
Intercept (γ_{10})	0.27**	0.09	[0.09, 0.44]
Variance (τ_1)	0.32**	0.11	[0.11, 0.53]
β_2 : Day t 's rumination \rightarrow Day $t + 1$'s morning negative mood			
Intercept (γ_{20})	0.16**	0.04	[0.08, 0.23]
Variance (τ_2)	0.04**	0.02	[0.01, 0.07]
β_3 : Day t 's customer mistreatment \rightarrow Day $t + 1$'s morning negative mood			
Intercept (γ_{30})	0.10*	0.05	[0.01, 0.19]
Variance (τ_3)	0.13*	0.06	[0.02, 0.24]
Fixed slopes			
β_4 : Day $t - 1$'s rumination \rightarrow Day t 's rumination	0.12**	0.03	[0.06, 0.18]
β_5 : Day t 's morning negative mood \rightarrow Day $t + 1$'s morning negative mood	0.18**	0.03	[0.13, 0.24]
Residual variances			
Day t 's rumination ($\sigma^2_{\text{within(rumination)}}$)	0.33**	0.02	[0.30, 0.36]
Day $t + 1$'s morning negative mood ($\sigma^2_{\text{within(negative mood)}}$)	0.19**	0.01	[0.17, 0.21]
Between-person effects			
DV: Rumination			
Intercept (γ_{01})	0.00	0.05	[−0.09, 0.10]
Customer mistreatment (β_6)	0.71**	0.09	[0.54, 0.88]
Neuroticism (β_7)	0.07	0.04	[−0.01, 0.15]
Residual variance ($\sigma^2_{\text{between(rumination)}}$)	0.33**	0.04	[0.25, 0.40]
DV: Negative mood			
Intercept (γ_{02})	1.75**	0.05	[1.57, 1.77]
Rumination (β_8)	0.35**	0.08	[0.20, 0.50]
Customer mistreatment (β_9)	0.22*	0.10	[0.02, 0.41]
Neuroticism (β_{10})	0.12**	0.04	[0.04, 0.20]
Residual variance ($\sigma^2_{\text{between(negative mood)}}$)	0.30**	0.03	[0.23, 0.36]

Note. Level 1 $N = 1,189$; Level 2 $N = 149$. MSEM = multilevel structural equation modeling; SE = standard error; CI = confidence interval; DV = dependent variable.

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

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