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DAILY CUSTOMER MISTREATMENT AND EMPLOYEE SABOTAGE AGAINST CUSTOMERS: EXAMINING EMOTION AND RESOURCE PERSPECTIVES

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Taking emotion and resource perspectives, we examined the daily relationship between customers' mistreatment of employees and employee sabotage of customers, as well as employees' individual- and unit-level emotion-based and resource-based moderators for this relationship. Multilevel analyses of daily survey data from 131 call center employees showed that daily customer mistreatment significantly predicted customer-directed sabotage. In addition, supporting the emotion perspective, employees' negative affectivity exacerbated the effect of customer mistreatment on customer-directed sabotage, whereas employees' self-efficacy for emotional regulation weakened such effect. Further, supporting the resource perspective, job tenure and service rule commitment both weakened the effect of customer mistreatment.

Customer mistreatment of employees, or low-quality interpersonal treatment employees receive from their customers (Bies, 2001), is a growing problem for service organizations (Caruana, Ramaseshan, & Ewing, 2001; Grandey, Dickter, & Sin, 2004; Harris & Reynolds, 2003). For example, Grandey et al. (2004) reported that call center employees experience customer mistreatment an average of ten times a day. Examples of customer mistreatment include treating the employee in disrespectful, demeaning, unreasonable, or aggressive ways (e.g., Dormann & Zapf, 2004; Grandey et al., 2004; Skarlicki, Van Jaarsveld, & Walker, 2008). Studies have generally found a positive relationship between such mistreatment of employees by customers and employee emotional exhaustion, demonstrating the detrimental effect of customer mistreatment (e.g., Dormann & Zapf, 2004; Grandey et al., 2004; Grandey, Kern, & Frone, 2007).

However, to our knowledge, only one study (Skarlicki et al., 2008) has answered Pearson and

Porath's (2004) call for more research on how mistreatment by customers may lead to negative employee behaviors directed toward them—such as employee sabotage of customers—a counterproductive work behavior whereby an employee intentionally harms the legitimate interests of a customer. We contend that this lack of research is an oversight, since customers are essential for most organizations (Ryan & Ployhart, 2003), and research has shown that frontline employees' behaviors directly affect customer satisfaction and loyalty (Liao & Chuang, 2004, 2007; Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly, 2005), which in turn affect organizations' revenue growth, profitability, and shareholder value (Anderson & Fornell, 2000; Anderson & Mazvancheryl, 2004; Reichheld & Sasser, 1990). Employee sabotage of customers, in particular, is a severe violation of the "service rule" or "script of required behaviors" mandating that customers receive professional, friendly, and patient treatment (e.g., Skarlicki et al., 2008; Solomon, Surprenant, Czepiel, & Guttman, 1985). Such sabotage has been argued and shown to be harmful to customer relationships (e.g., Bitner, Booms, & Tetrault, 1990; Pearson & Porath, 2004). Therefore, it is important to understand when mistreatment by customers triggers employee sabotage directed against them. Research in this regard may guide organizations' and managers' interventions aimed at reducing the likelihood of employee negative behaviors toward customers.

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Skarlicki et al. (2008) is the first study that examined the relationship between customer mistreatment and employee sabotage. Using critical incident technique, Skarlicki et al. (2008) showed that typical types of mistreatment by customers in call center service settings included verbal abuse (e.g., yelling at employees over the phone), unfair demands (e.g., demanding things the employees cannot deliver), and disrespectful behaviors (e.g., cutting employees off in midsentence). Drawing on justice theories, the authors argued that customer mistreatment may create a desire for employees to retaliate because social norm violations cause negative emotions (Lavelle, Rupp, & Brockner, 2007; Rupp & Cropanzano, 2002; Rupp & Spencer, 2006). Supporting their theorized emotion-based mechanism, they found that service representatives who experienced customer mistreatment more frequently were more likely to engage in sabotage behaviors directed toward the customers who mistreated them. In the current study, we attempt to extend the theoretical and empirical work of Skarlicki et al. (2008) and contribute to the broader literatures on customer mistreatment of employees and employee sabotage of customers in several ways.

First, although the emotion-based mechanism (e.g., Rupp & Spencer, 2006) helps to explain why an employee sabotages a customer who mistreated him or her, the resource perspective (Hobfoll, 1989) may be able to offer an additional account of the relationship between customer mistreatment and customer-directed sabotage. In particular, we conceptualize the customer service interaction as a process during which employees may lose or gain valued resources (e.g., Brotheridge & Lee, 2002; Grandey et al., 2004). We then argue that, in addition to reflecting the emotion-based retaliation tendency, customer-directed sabotage behaviors may also reflect employees' lacking resources for regulating their negative behavioral intentions toward customers, owing to resource loss caused by customer mistreatment. As such, the current study focuses on examining both the emotion- and resource-based mechanisms underlying the mistreatment-sabotage linkage.

Second, we seek to advance understanding of the emotion- and resource-based mechanisms by examining the boundary conditions under which the relationship between customer mistreatment and customer-directed employee sabotage is magnified or reduced (Colquitt & Zapata-Phelan, 2007). As Baron and Kenny (1986) argued, understanding *when* an effect happens informs *why* the effect happens. If employees sabotage because customer mistreatment leads to retaliation induced by negative

emotions, then employees' dispositional negative affectivity and their self-efficacy for regulating those negative emotions (i.e., their belief that they can regulate the emotions) may have an impact on the magnitude of this mistreatment-sabotage relationship. In addition, if employees engage in sabotage because customer mistreatment reduces their resources and their ability to abide by service rules, then employees who enjoy larger resource endowments will have stronger protection against resource depletion, making them less likely to be influenced by customer mistreatment. Thus, we examine employee characteristics that are emotion-based (i.e., negative affectivity and self-efficacy for emotional regulation) and resource-based (i.e., job tenure and service rule commitment) as moderators of the relationship between customer mistreatment and employee sabotage. This investigation directly compares the resource-based mechanism with the emotion-based mechanism to further understanding of why customer mistreatment leads to employee sabotage. It should also be noted that neither job tenure nor service rule commitment was directly conceptualized as an organizationally relevant resource-related variable in Hobfoll's (1989) conservation of resources theory. Therefore, we expand the range of resource-related variables that deserve more attention in organizational applications of the resource perspective.

Third, in addition to examining individual-level resources, we also examine a contextual social resource variable, supervisory support climate, as a unit-level moderator of the customer mistreatment–customer-directed sabotage relationship. Although previous studies have examined contextual resources as moderating the relationships between stressors and strain and stressors and maladaptive coping (Bacharach & Bamberger, 2007; Bacharach, Bamberger, & Doveh, 2008), we are not aware of any research that contrasts the effects of individual-level resource variables with those of unit-level resource variables. In doing so, we seek to provide a more comprehensive picture of how resource variables work on different levels in influencing the target relationship.

In addition to theoretical advances, the current study offers several empirical ones. Previous empirical studies of employee negative work behaviors have suggested that these behaviors typically have low base rates (e.g., Bacharach, Bamberger, & Sonnenstuhl, 2002; Fox, Spector, & Miles, 2001; Skarlicki et al., 2008). Therefore, examination of these behaviors often relies on measures that estimate average numbers or frequencies of occurrence over a certain time period (Sackett, 2002). However, this operationalization reflects little about the

potential fluctuations in behaviors during the same period. Given that customer-directed sabotage may be closely related to employees' day-to-day interaction with customers, average estimates of customer-directed sabotage over a long period may mask within-subject variation, thus yielding an underestimate of the relationship. Thus, we apply a daily research paradigm to better capture the temporal contingencies in the relationship between customer-enacted mistreatment and customer-directed sabotage.

Applying a daily research paradigm also allows us to examine how time-invariant variables may affect patterns in the within-subject mistreatment-sabotage relationship. Alliger and Williams (1993) argued that within-person relationships between psychological and behavioral constructs may range widely, perhaps as a result of various important individual, affective and behavioral patterns. This study examines relatively stable moderators—dispositional negative affectivity, self-efficacy for emotional regulation, job tenure, service rule commitment, and supervisory support climate—of the focal within-subject relationship.

In summary, taking the emotion- and resource-based mechanisms as our theoretical lenses and reporting a study using the daily research method, we aim to contribute to customer service research via our examinations of mistreatment of employees by customers as an antecedent of employees' sabotage of customers, and of both individual-level and unit-level emotion- and resource-based moderators

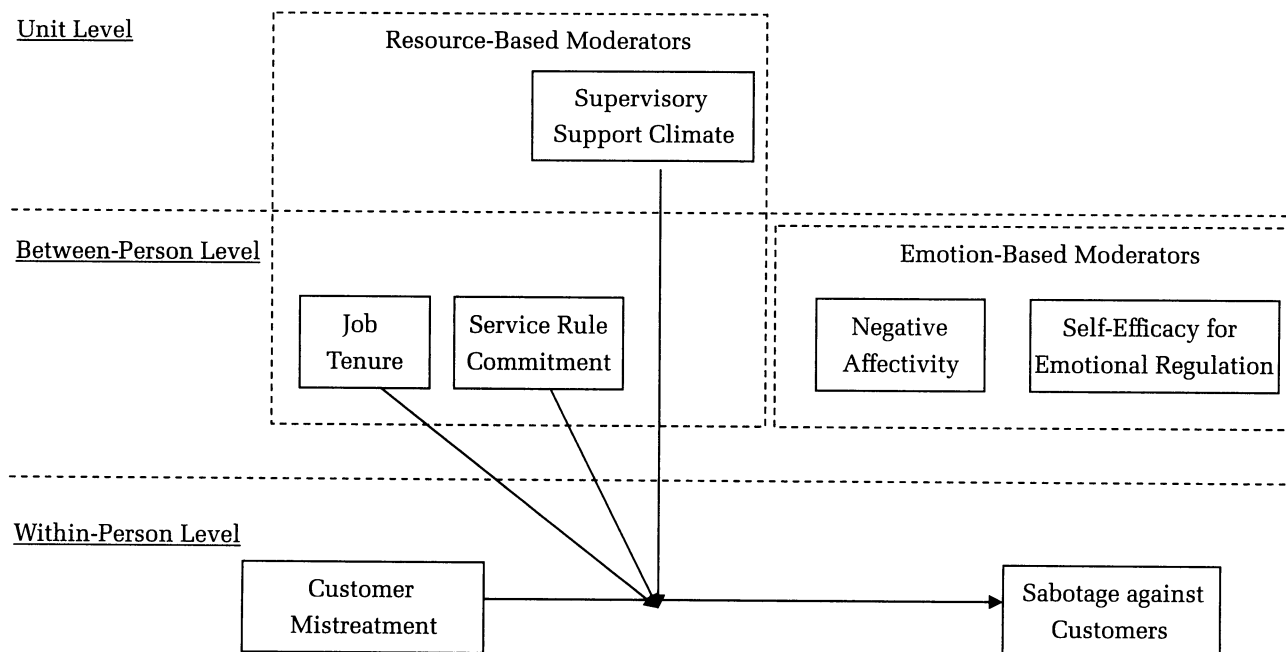
of this relationship. Figure 1 depicts our theoretical framework.

THEORETICAL BACKGROUND AND HYPOTHESIS DEVELOPMENT

The Emotion-Based Mechanism

The emotion-based mechanism has been frequently used to link perceptions of injustice to negative consequences. For example, Rupp and Spencer (2006) showed that unfair customer treatment induces anger in service employees, which in turn raise "emotional labor" demands. Zapata-Phelan, Colquitt, Scott, and Livingston (2009) also showed that perceptions of unfairness lead to low task performance via the activation of negative emotions. It has been argued that injustice perceptions are likely to induce anger because people often process these perceptions as cues that indicate threats to their self-interest and social identity and signal violations of social and moral norms (Cropanzano & Rupp, 2003; Weiss, Suckow, & Cropanzano, 1999). Consequently, the anger induced by injustice perceptions is likely to create employee desire to reciprocate the injustice and punish its source (Lavelle et al., 2007). Thus, these processes may lead employees to exhibit sabotage behaviors aimed against customers when they experience customer mistreatment (Skarlicki et al., 2008).

FIGURE 1
Theoretical Framework Based on the Emotion and Resource Perspectives



The posited role of this emotion-based mechanism is also consistent with the premise of the frustration-aggression hypothesis. Studies testing this hypothesis in work settings (e.g., Fox & Spector, 1999; Fox et al., 2001) have suggested that low-quality interpersonal treatment that employees receive from others leads to feelings of anger and frustration, which increase the employees' tendency to exhibit aggressive behaviors. Therefore, it is conceivable that customer mistreatment increases employees' tendency to sabotage customers because of anger induced by the injustice perceptions.

The Resource-Based Mechanism

Compared with the emotion-based mechanism, the resource-based mechanism has far more recently been applied to conceptualizing customer service interaction as a process during which employees can lose or gain valued resources (Brotheridge & Lee, 2002). According to Hobfoll (2002), *resources* can be broadly defined as the total capability an individual has to fulfill his or her central needs. Reviewing different types of resources studied in previous research, Wang (2007) suggested that this total capability might include physical resources (e.g., muscle strength), financial resources (e.g., income and assets), social resources (e.g., social support), cognitive resources (e.g., knowledge), and motivational resources (e.g., self-efficacy and goal commitment).

Hobfoll's (1989) conservation of resources theory suggests that people strive to obtain, retain, protect, and foster valued resources and minimize any threats of resource loss. This conservation process includes two parallel mechanisms. The accumulation mechanism refers to people using their resources to regulate their behaviors and actions and to exert control over their environment to gain new resources to fulfill their valued needs (Hobfoll, 2002). The protection mechanism activates when people face situations that may lead to loss of object, energy, personal, or social resources (i.e., primary resource loss). This mechanism may lead people to invest other resources they have to counter or compensate for the primary resource loss. To the extent that the protection mechanism depletes the individuals' resources (i.e., secondary resource loss), they tend to adopt less efficient or maladaptive loss control strategies, and a loss spiral emerges in which the resources needed to regulate emotions and behaviors deplete ever more rapidly (Bacharach & Bamberger, 2007; Hobfoll, 2002).

In the workplace, threats of primary resource loss are usually in the form of excessive job demands

(Brotheridge & Lee, 2002). The achievement of positive resource conservation outcomes largely relies on the extent to which employees can regain the resources they value by investing their resources (Hobfoll, Johnson, Ennis, & Jackson, 2003; Holahan, Moos, Holahan, & Cronkite, 1999; Komorita, Aquino, & Ellis, 1989) in meeting job demands. If the resources gained from working are less than those lost from meeting job demands, secondary resource loss may occur. Consequently, employees may not have enough resources to efficiently regulate their job-related behaviors and emotions (Vohs & Heatherton, 2000).

In customer service interactions, service employees are presented with the job demands imposed by their organization regarding treating customers in a professional, friendly, and patient manner. Nevertheless, by collaborating with customers, solving their problems, and fulfilling their service needs, service employees can gain several important resources. For example, cooperation and "coproduction" with customers may foster feelings of social companionship and relatedness (Dormann & Zapf, 2004). Solving customers' problems may lead to a sense of competence and accomplishment. Further, customers' expressions of gratitude may lead to feelings of self-esteem. Thus, in a regular customer service interaction, it is not difficult for an employee to reach a balance between resource loss and resource gain.

However, when customers mistreat employees, the customers' violation of the service interaction norm imposes more demands on employees' resources for regulating their behaviors in line with organizational customer service rules, while at the same time, all the above-discussed potential means to regain resources may be disrupted. This is likely to lead to an imbalance between investing resources and regaining resources that results in resource loss and depletion. This theorizing is consistent with Baumeister, Bratslavsky, Muraven, and Tice's (1998) finding that an initial task requiring high self-regulation limits people's subsequent capacity for active volition, such as maintaining high effort levels while working on difficult tasks.

Therefore, according to the resource perspective, a customer's mistreatment may impose extra demands on an employee's resources and prevent the employee from regaining resources via efficient and pleasant interactions with the customer. This may lead to primary resource loss and draw more resources from the employee, who seeks to counter or compensate for the primary resource loss. Consequently, secondary resource loss or even a loss spiral may happen and further undermine employees' ability to effectively regulate their customer

service behaviors. Research has shown that individuals' self-control, or the capacity to overcome selfish impulses so as to curb inappropriate behavior and act in socially desirable ways, requires resources that can become depleted with use (e.g., Baumeister, Heaterton, & Tice, 1994; Muraven, Tice, & Baumeister, 1998). Therefore, people tend to perform poorly on a self-control task when facing a resource loss. For example, Mead, Baumeister, Gino, Schweitzer, and Ariely (2009) demonstrated that dishonest behavior increased when people's resources for exerting self-control were impaired.

Taken together, the emotion- and resource-based mechanisms lead us to expect that employees are more likely to engage in customer sabotage on days that they experience more customer mistreatment. Specifically, such mistreatment may create a desire to reciprocate with sabotage of the customers that results from anger induced by injustice perceptions. Customer mistreatment may also deplete employees' resources so that they cannot regulate their sabotage behaviors.

Hypothesis 1. Daily mistreatment by customers is positively related to employees' daily sabotage of customers.

The Emotion-Based Moderators

According to the perspective forwarding emotion-based mechanisms, variables that may amplify or reduce negative emotional reactions to unjust treatment may influence the magnitude of the proposed mistreatment-sabotage relationship. In the current study, we investigate two such variables: dispositional negative affectivity and self-efficacy for emotional regulation. Previous research has shown that those higher in negative affectivity are more sensitive to negative stimuli in their environment and are more emotionally reactive to those stimuli (Bolger & Zuckerman, 1995). Therefore, they are more likely to overweight the negative experiences they encounter (Watson & Clark, 1984). Supporting this argument, Skarlicki, Folger, and Tesluk (1999) found that negative affectivity exacerbated the negative relationship between fairness perception and retaliatory behaviors toward an organization. As such, employees with higher levels of negative affectivity may experience stronger negative emotions when they encounter customer mistreatment, which in turn may lead to higher levels of desire for them to reciprocate with sabotage behaviors. Further, people who are higher in negative affectivity often engage in maladaptive coping when facing stressors (e.g., Liu, Wang, Zhan, & Shi,

2009; Scheier, Weintraub, & Carver, 1986). This may make it harder for them to regulate their negative emotions resulting from mistreatment by customers.

Hypothesis 2. Negative affectivity moderates the positive association between daily mistreatment by customers and daily sabotage of customers; this relation is stronger for employees who have higher levels of negative affectivity.

Self-efficacy for emotional regulation refers to how much people believe that they are able to successfully regulate their emotions. Bandura (2001) noted that people have little incentive to act or to persevere in the face of difficulties unless they believe they can obtain desired results and prevent detrimental ones by their actions. Therefore, individuals who have higher levels of task-specific self-efficacy typically see themselves as able to successfully influence over the task at hand. As such, these individuals are more likely to be motivated to invest effort in pursuing their task-related goals (Bandura & Locke, 2003). Thus, in the face of customer mistreatment, employees with higher levels of self-efficacy for emotional regulation may be more willing to invest effort to regulate negative emotions (e.g., anger and frustration) than those with lower levels of self-efficacy for emotional regulation. Supporting this argument, Heuven, Bakker, Schaufeli, and Huisman (2006) found that employees' self-efficacy for performing emotion work buffered the negative relationship between emotional job demands and emotional dissonance. We thus may expect employees with higher self-efficacy for emotional regulation to be less likely to exhibit sabotage behaviors in the face of customer mistreatment.

Hypothesis 3. Self-efficacy for emotional regulation moderates the relationship between daily mistreatment by customers and daily sabotage of customers; this positive association is weaker for employees who have higher levels of self-efficacy for emotional regulation.

The Resource-Based Moderators

In the current study, we seek to directly test the resource perspective by examining the moderating effects of resource-based variables. Using Wang's (2007) categorization, we selected variables related to cognitive resources, motivational resources, and social resources. In accordance with the resource-based conceptualization of customer service interaction, these three types of resources are directly related to an employee's behavioral regulation in

the face of customer mistreatment. Specifically, we included job tenure as the cognitive resource-related variable, commitment to organizational service rules as the motivational resource-related variable, and unit-level supervisory support climate as the social resource-related variable.

Job tenure refers to the length of time an employee has worked on a specific job (Schmidt & Hunter, 1998). Previous studies have shown that job tenure is directly related to job-related knowledge, because the longer his or her job tenure is, the more learning and practice opportunities an employee has had (Schmidt, Hunter, & Outerbridge, 1986; Tesluk & Jacobs, 1998). Job-related knowledge has long been viewed as a key type of cognitive resource that could facilitate self-regulation, because it improves capacity to effectively control a work environment and initiate volitional actions. Specifically, after a substantial amount of consistent task practice (i.e., longer job tenure), task-related performance usually becomes faster and more accurate, and an employee can often perform tasks with minimal impairment when devoting attention to self-regulation (Kanfer & Ackerman, 1989). Therefore, service employees who have longer job tenure may have higher automaticity in performing their jobs and can allocate more resources to regulating service-related emotions and behaviors in the face of resource loss due to customer mistreatment.

Hypothesis 4. Job tenure moderates the relationship between daily mistreatment by customers and daily sabotage of customers; this positive association is weaker for employees who have longer job tenure.

Employee commitment to organizational service rules, the motivational resource-related variable considered in the current study, is conceptually similar to Gosserand and Diefendorff's newly developed construct, "commitment to display rules," which focuses on capturing "a person's intention to extend effort toward displaying organizationally desired emotions, persist in displaying these emotions over time, and not abandon the display rules under difficult conditions" (2005: 1257). Given that the focus of the current study was on examining customer-directed sabotage behaviors, we used employee commitment to organizational service rules to capture the degree to which an employee accepts the organizational service rules regarding treating customers in a professional, friendly, and patient manner and intends to both exert effort toward consistently conforming to these rules over time and not abandon these service rules in difficult situations. If we conceptualize

these service rules as organization-assigned goals for employees, it is conceivable that employee commitment to service rules is analogous to goal commitment, which can mobilize effort and sustain persistence in the face of setbacks during goal pursuit (Klein, Wesson, Hollenbeck, & Alge, 1999). In fact, previous research has explicitly categorized goal commitment through ongoing goal pursuit as a key personal resource that sustains individuals' levels of effort to achieve goals (Hobfoll, 2002). Therefore, we contend that employee commitment to service rules represents an employee's motivational resource in terms of willingness and persistence to regulate service-related behaviors and emotions. Thus, when facing customer mistreatment, employees with lower (vs. higher) rule commitment are less likely to invest effort into regulating their job-related emotions and behaviors, which, in turn, leads to a higher likelihood of exhibiting customer-directed sabotage behaviors.

Hypothesis 5. Service rule commitment moderates the positive association between daily mistreatment by customers and sabotage of customers; this relation is weaker for employees who have higher levels of rule commitment.

Unit-level supervisory support climate has been considered as a key social contextual resource for employees at work (Bacharach & Bamberger, 2007; Bacharach et al., 2008). It refers to the general availability to work unit members of key object, energy, and social resources provided by their supervisor. It is conceivable that with a more supportive supervisor, the rate and extent of resource loss resulting from customer mistreatment may be reduced and countered by the resource gain from supervisory support. As such, unit-level supervisory support climate may be an important factor that facilitates the replenishment of unit members' depleted resources. Consequently, we expect that unit-level supervisory support climate protects unit members' resources in the face of customer mistreatment and thus helps them to maintain better regulation that inhibits sabotage of customers.

Hypothesis 6. Unit-level supervisory support climate moderates the relationship between daily mistreatment by customers and daily sabotage of customers; this positive association is weaker for units that have higher levels of supervisory support climate.

METHODS

Participants and Procedures

Participants were recruited from a call center, located in southern China, that provides customer service support to telephone and cell phone products. The customer service representatives working in this call center typically respond to between 60 and 90 calls per day. The average length of a call is about four minutes (typically ranging from two to five minutes). The organization's human resources department distributed the study announcement, along with a letter assuring confidentiality and voluntary participation, to all customer service representatives. Specifically, employees were assured that their managers and organization would not know their individual responses in the survey. One hundred and fifty-nine out of a total of 250 representatives (63.6%) agreed to participate in the current study, but 19 of them were not able to complete all three phases of data collection (i.e., initial assessment, daily survey, and follow-up survey), and 9 of them changed their work unit affiliation between administrations of the daily survey and the follow-up survey. Data from these 28 employees were excluded from the current analysis. Therefore, the final sample size for this study was 131. The majority of the employees in the sample (71.8%) were female. The average age was 24.41 years (*s.d.* = 2.20), and average job tenure was 1.39 years (*s.d.* = 1.20). They were affiliated with 37 work units, and on average each unit had 3.54 participants (range = 2–6; *s.d.* = 1.22). Using call center customer service representatives in the current study had advantages in terms of both research design and generating knowledge that is highly relevant to business practice. Specifically, call center employees are in frequent contact with customers, giving them plenty of opportunity to experience customer mistreatment (Grandey et al., 2004). Further, call centers usually require their employees to portray positive emotions to customers over the telephone (Batt, 2002; Totterdell & Holman, 2003), a characteristic making this a particularly relevant context in which to examine variables such as self-efficacy for emotional regulation and service rule commitment. Finally, as Batt (2002) and Skarlicki et al. (2008) argued, the call center industry is a fast-growing segment of the economy, and organizations are increasingly moving service support onto the telephone, making this research setting highly relevant to many organizations.

The data collection included three phases. In the first phase, participants completed a questionnaire providing demographic and individual-level resource-related variables. About two weeks after the

first phase, we conducted daily surveys for two consecutive weeks (i.e., ten work days). During this phase, with the company's permission, each work-day afternoon around 4:50 p.m. (ten minutes before the end of the workday at 5 p.m.), research assistants distributed a paper-and-pencil survey asking about mistreatment by customers and sabotage of customers that happened on that day. Therefore, the participants were able to finish the survey on company time, before they left work, and they directly handed completed surveys to the research assistants. This procedure reassured the participants that survey responses would remain undisclosed to the management. If participants failed to hand in surveys to the research assistants before they left work, they could not hand them in later or on the next day. This procedure reduced retrospective reporting error and eliminated the influences of after-work factors. Participants received 120 Chinese yuan (about 18 U.S. dollars) as a token of appreciation for completing the first two phases of data collection. In total, participants completed 1,303 of 1,310 potential daily surveys (131 participants $\times$ ten days), giving us a near-perfect response rate (99.5%). This unusually high response rate is likely due to the combination of company sponsorship, use of company time to fill out the daily survey, and the financial incentive offered for completing the first two phases of data collection. From the company's records, we also obtained each participant's daily call flow volume (i.e., how many calls each responded to every day; mean = 75.51, *s.d.* = 9.33) during the daily survey phase.

About seven months after the daily survey phase, we conducted a follow-up survey to measure participants' levels of social desirability bias and perceived supervisory monitoring as control variables. The follow-up also measured perceived supervisory support to capture unit-level supervisory support climate. Gathering this information at a different point in time helped us to alleviate potential concerns about common method bias (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). None of the 37 work units to which our 131 participants belonged changed supervisors between the daily survey and the follow-up survey.

All surveys were conducted in Chinese. We followed a translation-back translation procedure (Brislin, 1980) involving four translators. Three of them (translators A, B, C) were bilingual researchers in the field of organizational behavior, and the fourth one (translator D) was a certified professional Chinese-English translator. First, A and B translated the English version of the survey into Chinese. They were allowed to discuss translation issues together. Then, C double-checked their Chi-

nese translation and reconciled concerns with the two original translators. The resulting Chinese survey was passed to D for back-translation. All the translators then compared the original and back-translated English versions to reach final consensus on the Chinese survey.

Initial Assessment

Dispositional negative affectivity. Trait negative affectivity was measured with a ten-item scale developed by Watson, Clark, and Tellegen (1988). This scale has been used in Chinese samples before and has shown good reliability and construct validity (e.g., Reise, Widaman, & Pugh, 1993). Two sample items are “irritable” and “distressed.” Responses are given on a scale ranging from 1, “strongly disagree,” to 5, “strongly agree.” The Cronbach’s alpha reliability coefficient of this scale was .85.

Self-efficacy for emotional regulation. The four-item scale developed by Wong and Law (2002) to measure an individual’s belief regarding his/her ability to regulate emotions was used to measure self-efficacy for emotional regulation. We chose this scale because it was developed in Chinese and has shown good reliability and construct validity in Chinese samples (e.g., Wong & Law, 2002; Wong, Wong, & Law, 2005). A sample item is “I have good control of my own emotions” (1 = “strongly disagree” to 7 = “strongly agree”; $\alpha = .92$).

Job tenure. Job tenure was measured by asking employees to indicate how many years and months they had worked as call center customer service representatives.

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. Gosserand and Diefendorff’s (2005) original measure focused on capturing employee’s commitment to displaying the organizationally desired emotions when serving customers and showed desirable unidimensionality and divergent validity with perceived display rules, positive affectivity, negative affectivity, surface acting, deep acting, and positive affective delivery. In the current study, we sought to capture the extent to which employees were committed to the call center’s service rules regarding treating customers in a professional, friendly, and patient manner when responding to phone calls (these rules are explicitly listed in the company’s service policy). The instructions for this scale read, “Please rate the extent to which you agree with each statement regarding your company’s service rules for treating customers professionally, friendly, and pa-

tiently” (1 = “strongly disagree” to 5 = “strongly agree”). The five items ($\alpha = .85$) were “When serving customers, it’s hard to take these service rules seriously” (reverse-coded); “Quite frankly, I don’t care if I conform to these service rules or not” (reverse-coded); “When serving customers, I am committed to conforming to my company’s customer service rules”; “When serving customers, it would not take much to make me abandon these service rules” (reverse-coded); and “I think these service rules given by my organization are good to comply with.”

We conducted confirmatory factor analysis using Mplus 5.2 (Muthén & Muthén, 2007) to ensure the construct validity of the scale measures used in the initial assessment. The three-factor measurement model provided a very good fit to the data ($\chi^2[149] = 199.11$, $p < .01$, IFI [incremental fit index] = 0.97, CFI [comparative fit index] = .96, RMSEA [root-mean-square error of approximation] = .05, and SRMR [standardized root-mean-square residual] = .04). In addition, all the scale items loaded significantly onto their corresponding latent constructs (standardized factor loadings ranged from .58 to .96). The correlations between the three latent factors ranged from $-.33$ to $.05$, demonstrating clear distinctions among negative affectivity, self-efficacy for emotional regulation, and service rule commitment.

Daily Survey

Daily mistreatment by customers. We used an 18-item measure to assess the daily mistreatment employees received from their customers. We adapted items from Dormann and Zapf’s (2004) 21-item measure of customer-related social stressors and Skarlicki et al.’s (2008) 8-item measure of customer interpersonal injustice behaviors. Both measures included customers’ behaviors that were aggressive and unfair to the service employees. We combined the two scales to make sure that we covered most of the customer mistreatment behaviors documented in the literature. Items that were not appropriate for the call center service situations or did not clearly reflect low-quality interpersonal treatment received from customers were eliminated, resulting in a final set of 18 items. The Appendix presents contents and scale anchors for these items. Coefficient alpha was not an appropriate index to provide a reliability estimate for this scale because it includes distinct types of customer mistreatment behaviors experienced daily by the employees (Frone, 1998; Liu et al., 2009).

Daily customer-directed sabotage. We used a five-item behavior checklist developed by Skarlicki

et al. (2008) to assess employees' daily customer-directed sabotage. We chose this measure because it was developed using critical incident technique and is specific to measuring customer service representatives' customer-directed sabotage behaviors in a call center context. The Appendix lists the five items. Participants were instructed to indicate whether these behaviors happened on that particular day by checking 0 ("no") or 1 ("yes"). We calculated the index of daily customer-directed sabotage by summing the number of behaviors endorsed on that day. We chose to use yes/no response options in view of previous findings from measuring customer-directed sabotage by call center employees, as well as recommendations offered in previous studies that examined daily counterproductive work behaviors. Specifically, Skarlicki et al. (2008) showed that when measuring these five customer-directed sabotage items on a frequency scale (1 = "never over the past month," 2 = "1–2 times over the past month," 3 = "3–4 times over the past month," 4 = "5–7 times over the past month," and 5 = "more than 7 times over the past month"), call center representatives on average scored 1.41 (i.e., between "never" and "1–2 times"). Because it seems that these behaviors have a very low base rate and each of them is unlikely to happen more than once during a particular day, measuring them using a daily frequency scale seems less meaningful. Further, previous studies that have measured low-base-rate counterproductive work behaviors daily have all used yes/no; for example, Dalal, Lam, Weiss, Welch, and Hulin (2009) measured counterproductive work behaviors in this way, and Miner, Glomb, and Hulin (2005) similarly assessed work withdrawal behaviors. Further, researchers have also advocated using a yes/no checklist for daily measures of low-base-rate behaviors because it is easy to complete and generates less social desirability priming than other formats (Liu et al., 2009; Mohr et al., 2005; Wang, Liu, Zhan, & Shi, 2010). In conducting the current study, we also preferred the checklist format because the company limited the time in which we could collect the daily data. As in the case of daily customer mistreatment, coefficient alpha was not the appropriate reliability estimate for the checklist of daily customer-directed sabotage.

Follow-up Survey

Supervisory support climate. To assess the supervisory support climate, we used the four-item scale developed by Bacharach and Bamberger (2007). Employees were asked to indicate how often (1 = "never," 2 = "seldom," 3 = "sometimes,"

4 = "often," 5 = "always") their unit supervisor exhibited the four supportive behaviors. The items are "How often can your supervisors be counted on to listen, show understanding or show they care when things get tough at work?"; "How often can you rely on your supervisors for advice or information when things get tough at work?"; "How often do your supervisors go out of their way to do things to make your work-life easier?"; and "How often could you rely on your supervisors to assist you with practical matters/minor emergencies off-duty?" At the individual level, the internal consistency reliability for this scale was .80. We aggregated the individual-level perceptions to obtain a unitwide description of supervisory support climate (r_{wg} 's ranged from .59 to .97, median r_{wg} = .85; ICC1 = .39, $p < .01$, ICC2 = .96).

Control variables. In the follow-up survey, we measured two control variables: *social desirability bias* and *perceived supervisory monitoring*. Social desirability bias was assessed with the 40-item Balanced Inventory of Desirable Responding (BIDR) scale (Paulhus, 1991). The internal consistency reliability for this scale was .62, which was comparable to the relatively low alpha found for this scale in past studies (e.g., Campbell, Trapnell, Heine, Katz, Lavalley, & Lehman, 1996; Paulhus & Reid, 1991). Perceived supervisory monitoring was assessed with a 3-item measure developed for the current study to capture employees' perceptions of how often (1 = "never," 2 = "seldom," 3 = "sometimes," 4 = "often," 5 = "always") they were monitored by their supervisors. The items are "How often do you think that supervisors monitor you when you talk to customers?"; "How often do you think that the phone conversations you have with customers are monitored by your supervisors?"; and "How often do you think that supervisors know the content of your service communication with your customers?" (α = .80). We included supervisory monitoring as a covariate to control for the potentially deterring effect that supervisory practice might have on customer-directed sabotage behaviors.

Analytical Strategies

Our data contained a hierarchical structure in which daily assessments were nested within participants and participants were nested within work units. Thus, the data contained within-subject, between-subject, and between-unit observations. We used multilevel modeling techniques that have been developed to analyze this type of nested data (e.g., Bryk & Raudenbush, 1992) to test our hypotheses, choosing HLM 6.06 for its flexibility

in modeling three-level nested data and nonnormal outcomes in multilevel models. Specifically, daily customer-directed sabotage was measured as the number of customer-directed sabotage behaviors carried out by a participant. This was a low-base-rate count variable. Its distribution contained many zeros, typically following a Poisson distribution and consequently violating assumptions of the linear regression model (Gardner, Mulvey, & Shaw, 1995). Therefore, we conducted nonlinear multilevel regression analyses for customer-directed sabotage using a Poisson sampling model with a log-link function (Bryk & Raudenbush, 1992).

When estimating multilevel models at level 1 (the within-subject level), following Hofmann and Gavin's (1998) suggestion, we centered daily customer mistreatment by group means to assure accurate estimation of its within-person predictive effect on daily customer-directed sabotage. Participants' daily call flow volume was included as a covariate at level 1 to control for the possibility that customer mistreatment might be a consequence of long wait times and heightened employee pressure. At level 2 (the between-subject level), following Hofmann and Gavin (1998) we also included within-subject means of daily customer mistreatment in predicting the level 1 random intercept, in order to assess any cross-level moderating effects of the between-subject variables (i.e., job tenure, negative affectivity, self-efficacy for emotional regulation, and service rule commitment) on the within-subject relationship between daily customer mistreatment and customer sabotage that went beyond the effects of mean daily customer mistreatment. Age, gender, social desirability, and perceived supervisory monitoring were included as control variables at level 2. The cross-level moderating effect of supervisory support climate was estimated at level 3 (the between-unit level).

We conducted supplemental multilevel analysis using a negative binomial model in Mplus 5.2 to detect potential overdispersion in the observations (the possibility that residual variance is larger than the conditional mean under the Poisson model [Coxe, West, & Aiken, 2009; Gardner et al., 1995]). The overdispersion parameter was not significant, indicating that overdispersion was not likely to be a concern for the current data. Further, the model parameter estimates were virtually the same as those from the original analyses. We also conducted additional analysis to control for the day-of-the-week effects and for linear and quadratic time trends in daily customer-directed sabotage. These effects were not significant, and the hypothesis-associated parameter estimates were consis-

tent with the ones obtained from the original analyses. Therefore, for the sake of brevity, we only report results of the original analyses here. The results of supplemental multilevel analyses are available from the corresponding authors upon request.

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. Over the ten days, participants on average executed 0.41 customer-directed sabotage behaviors per day. The daily distribution of this variable was highly skewed (the counts ranged from 0 to 5 with a median of 0). At the within-subject level, daily mistreatment by customers was significantly correlated with participants' customer-directed sabotage ($r = .47, p < .01$), which provides preliminary support for Hypothesis 1.

Main Effect of Daily Mistreatment by Customers

The within-subject main effect of daily mistreatment of employees by customers in predicting daily customer-directed sabotage was tested via estimating a random slope model. Table 2 presents multilevel modeling parameter estimates and their 95% confidence intervals for this model. To rigorously test this main effect, in addition to controlling for age, gender, social desirability, and employees' perceived supervisory monitoring at level 2 in the intercept model, we also controlled for daily call flow volume for the employees at level 1. The mean value of the random slope for customer mistreatment predicting customer sabotage was significant ($\gamma_{100} = .97, p < .01$), indicating that employees are more likely to engage in customer-directed sabotage behaviors on days that they receive more customer mistreatment. This finding supports Hypothesis 1. Further, the variance of the random slope for customer mistreatment–customer-directed sabotage relationship ($\tau_1 = 3.30, p < .05$) was significant, indicating that there was sufficient variance in this random slope that could be further accounted for by level 2 between-subject predictors.

Testing Cross-Level Moderations

Table 3 presents parameter estimates and their 95% confidence intervals for the model that in-

TABLE 1
Means, Standard Deviations, and Correlations among Study Variables^a

Variables	Mean	Within-Subject s.d.	Between-Subject s.d.	1	2	3	4	5	6	7	8	9	10	11	12
1. Age	24.41		2.20												
2. Gender	0.72		0.45	-.05											
3. Social desirability bias	6.71		5.84	.12	.03										
4. Perceived supervisory monitoring	1.82		1.32	.12	-.01	.64**	(.80)								
5. Job tenure	1.39		1.20	.27**	-.07	.01	-.04								
6. Negative affectivity	2.15		0.73	-.05	-.01	.03	.08	-.10	(.85)						
7. Self-efficacy for emotional regulation	4.90		1.35	.04	-.19*	.03	-.01	.20*	-.36**	(.92)					
8. Service rule commitment	3.90		0.75	.16	.10	.05	.01	.10	-.21*	.10	(.85)				
9. Perceived supervisory support climate	3.00		0.76	.10	-.11	-.06	.18	-.02	-.17	.20*	.16	(.80)			
10. Daily call flow volume	75.51	9.33	2.83	-.02	.08	-.15	-.10	.00	.01	.07	.13	.08	.00		-.02
11. Daily mistreatment by customers	0.48	0.59	0.52	-.16	.04	-.14	.05	.15	-.04	.10	-.09	.13	.02		.47**
12. Daily customer-directed sabotage	0.41	0.79	0.54	-.13	-.03	-.02	.12	.10	.12	-.17	-.24**	.12	-.08	.65**	

^a Correlations below the diagonal represent between-subject correlations ($n = 131$). To calculate the between-subject correlations, we averaged within-subject variables (i.e., daily call flow volume, daily customer mistreatment, daily customer-directed sabotage, and daily work strain) across days. Gender was coded 0 for men and 1 for women. Correlations above the diagonal represent within-subject correlations ($n = 1,303$).

* $p < .05$

** $p < .01$

cludes emotion-based cross-level moderators (i.e., employees' negative affectivity and self-efficacy for emotional regulation). Specifically, after controlling for age, gender, social desirability, and perceived supervisory monitoring, we found that negative affectivity ($\gamma_{150} = 1.90, p < .01$) and self-efficacy for emotional regulation ($\gamma_{160} = -0.92, p < .01$) were both significantly related to the slope for

the relationship between daily mistreatment by customers and sabotage in the expected directions, providing preliminary support to Hypotheses 2 and 3. None of the control variables were significant in predicting this random slope. Further, the calculation of pseudo- R^2 showed that the level 2 variables accounted for 36.36 percent of the variance in this random slope. Nonetheless, the residual variance

TABLE 2
Within-Subject Main-Effect Models^a

Variables	Customer-Directed Sabotage		
	Coefficient	s.e.	95% Confidence Interval
<i>Random intercept (β_{00})</i>			
Intercept (γ_{000})	0.25	1.32	(-2.43, 2.93)
Age (γ_{010})	-0.05	0.05	(-0.15, 0.05)
Gender (γ_{020})	-0.07	0.23	(-0.52, 0.38)
Social desirability bias (γ_{030})	-0.03	0.02	(-0.07, 0.014)
Perceived supervisory monitoring (γ_{040})	0.22	0.13	(-0.04, 0.48)
Level 2 residual variance (τ_{00})	0.85**	0.20	(0.46, 1.24)
Level 3 variance (τ_{000})	0.04*	0.02	(0.00, 0.07)
<i>Random slope for mistreatment by customers (β_{10})</i>			
Mean (γ_{100})	0.97**	0.32	(0.32, 1.62)
Level 2 variance (τ_{10})	3.30*	1.31	(0.73, 5.87)
Level 3 variance (τ_{100})	0.76*	0.35	(0.07, 1.45)
<i>Fixed slope for daily call flow volume (β_2)</i>			
	-0.00	0.00	(-0.01, 0.01)

^a Level 1 $n = 1,303$, Level 2 $n = 131$, Level 3 $n = 37$.

* $p < .05$

** $p < .01$

TABLE 3
Cross-Level Moderation Models for Emotion-Based Moderators^a

Variables	Customer-Directed Sabotage		
	Coefficient	s.e.	95% Confidence Interval
<i>Random intercept (β_{00})</i>			
Intercept (γ_{000})	-0.11	1.04	(-2.23, 2.01)
Age (γ_{010})	0.03	0.03	(-0.03, 0.10)
Gender (γ_{020})	-0.49**	0.18	(-0.85, -0.14)
Social desirability bias (γ_{030})	0.02	0.02	(-0.01, 0.05)
Perceived supervisory monitoring (γ_{040})	0.03	0.08	(-0.13, 0.20)
Negative affectivity (γ_{050})	-0.30	0.17	(-0.63, 0.04)
Self-efficacy for emotional regulation (γ_{060})	-0.40**	0.09	(-0.59, -0.21)
Individual-level mean for daily customer mistreatment (γ_{090})	1.08**	0.12	(0.84, 1.32)
Level 2 residual variance (τ_{00})	0.68**	0.22	(0.24, 1.12)
Level 3 residual variance (τ_{000})	0.03	0.02	(-0.01, 0.07)
<i>Random slope for mistreatment by customers (β_{10})</i>			
Intercept (γ_{100})	1.19	4.88	(-4.61, 8.69)
Age (γ_{110})	0.08	0.13	(-0.18, 0.34)
Gender (γ_{120})	0.23	0.79	(-1.34, 1.79)
Social desirability (γ_{130})	-0.13	0.09	(-0.31, 0.04)
Perceived supervisory monitoring (γ_{140})	0.30	0.43	(-0.55, 1.14)
Negative affectivity (γ_{150})	1.90**	0.81	(0.25, 3.54)
Self-efficacy for emotional regulation (γ_{160})	-0.92**	0.31	(-1.54, -0.29)
Level 2 residual variance (τ_{10})	2.10*	0.99	(0.16, 4.04)
Level 3 residual variance (τ_{100})	0.60	0.62	(-0.64, 1.83)
<i>Fixed slope for daily call flow volume (β_2)</i>	-0.00	0.00	(-0.01, 0.01)

^a Level 1 $n = 1,303$, level 2 $n = 131$, level 3 $n = 37$.

* $p < .05$

** $p < .01$

of the random slope for the customer mistreatment–customer-directed sabotage relationship was still significant ($\tau_{10} = 2.10$, $p < .05$).

Table 4 presents parameter estimates and their 95% confidence intervals for the model with all cross-level moderators. The calculation of pseudo- R^2 showed that job tenure and service rule commitment explained 29.09 percent of variance of the level 2 random slope above and beyond that explained by the emotion-based moderators. Further, the residual variance of the random slope was not significant any more ($\tau_{10} = 1.14$, $p .05$). This finding suggests that the resource-based moderators also contributed significantly to explaining the relationship between mistreatment by customers and customer-directed sabotage.

In this model, negative affectivity was significantly related to the slope of the daily customer mistreatment–customer-directed sabotage relationship ($\gamma_{150} = 0.92$, $p < .01$). Following the procedure illustrated by Cohen, Cohen, West, and Aiken (2003), we plotted this interaction at conditional values of negative affectivity (one standard deviation [1 s.d.] above and below the mean). As presented in Figure 2, the relationship between mis-

treatment by customers and customer-directed sabotage was stronger for employees with higher levels of negative affectivity than for those with lower levels of negative affectivity. Further, simple slope tests showed that when negative affectivity was high (i.e., 1 s.d. above the mean), the log-linear slope coefficient for customer mistreatment was positive and significant ($\beta_{10} = 0.73$, $p < .05$), whereas when negative affectivity was low (i.e., 1 s.d. below the mean), the log-linear slope coefficient was not significant ($\beta_{10} = 0.61$, $p .05$), thus supporting Hypothesis 2. Regarding the actual size of the effect, for each unit increase in mistreatment, employees who scored one point higher than the mean score of negative affectivity would report a 167 percent increase in sabotage activities, whereas employees who scored one point lower than the mean score would report a 136 percent increase in sabotage activities.

Self-efficacy for emotional regulation was significantly related to the daily customer mistreatment–customer-directed sabotage slope ($\gamma_{160} = -0.82$, $p < .01$). As presented in Figure 3, the simple slope tests showed that when self-efficacy for emotional regulation was high (i.e., 1 s.d. above the mean), the

TABLE 4
Cross-Level Moderation Models for All Moderators^a

Variables	Customer-Directed Sabotage		
	Coefficient	s.e.	95% Confidence Interval
<i>Random intercept (β_{00})</i>			
Intercept (γ_{000})	0.43	1.28	(-2.16, 3.02)
Age (γ_{010})	0.02	0.03	(-0.05, 0.08)
Gender (γ_{020})	-0.34	0.18	(-0.71, 0.03)
Social desirability (γ_{030})	0.01	0.02	(-0.02, 0.05)
Perceived supervisory monitoring (γ_{040})	0.05	0.09	(-0.13, 0.24)
Negative affectivity (γ_{050})	-0.03	0.20	(-0.43, 0.38)
Self-efficacy for emotional regulation (γ_{060})	-0.31**	0.09	(-0.48, -0.14)
Job tenure (γ_{070})	0.12	0.07	(-0.02, 0.26)
Service rule commitment (γ_{080})	-0.32**	0.11	(-0.53, -0.10)
Individual-level mean for daily customer mistreatment (γ_{090})	1.02**	0.08	(0.85, 1.19)
Supervisory support climate (γ_{001})	0.03	0.21	(-0.40, 0.47)
Level 2 residual variance (τ_{00})	0.46**	0.12	(0.21, 0.70)
Level 3 residual variance (τ_{000})	0.01	0.07	(-0.13, 0.15)
<i>Random slope for mistreatment by customers (β_{10})</i>			
Intercept (γ_{100})	1.83	1.76	(-1.73, 5.40)
Age (γ_{110})	0.16*	0.06	(0.04, 0.29)
Gender (γ_{120})	0.47	0.44	(-0.41, 1.35)
Social desirability bias (γ_{130})	-0.05	0.05	(-0.15, 0.05)
Perceived supervisory monitoring (γ_{140})	-0.11	0.19	(-0.49, 0.28)
Negative affectivity (γ_{150})	0.92**	0.36	(0.22, 1.63)
Self-efficacy for emotional regulation (γ_{160})	-0.82**	0.16	(-1.13, -0.51)
Job tenure (γ_{170})	-0.55*	0.23	(-1.01, -0.10)
Service rule commitment (γ_{180})	-1.33**	0.28	(-1.89, -0.77)
Supervisory support climate (γ_{101})	0.83	0.45	(-0.08, 1.74)
Level 2 residual variance (τ_{10})	1.14	0.60	(-0.02, 2.31)
Level 3 residual variance (τ_{100})	0.37	0.49	(-0.59, 1.34)
<i>Fixed slope for daily call flow volume (β_2)</i>	-0.00	0.00	(-0.01, 0.01)

^a Level 1 $n = 1,303$, level 2 $n = 131$, level 3 $n = 37$.

* $p < .05$

** $p < .01$

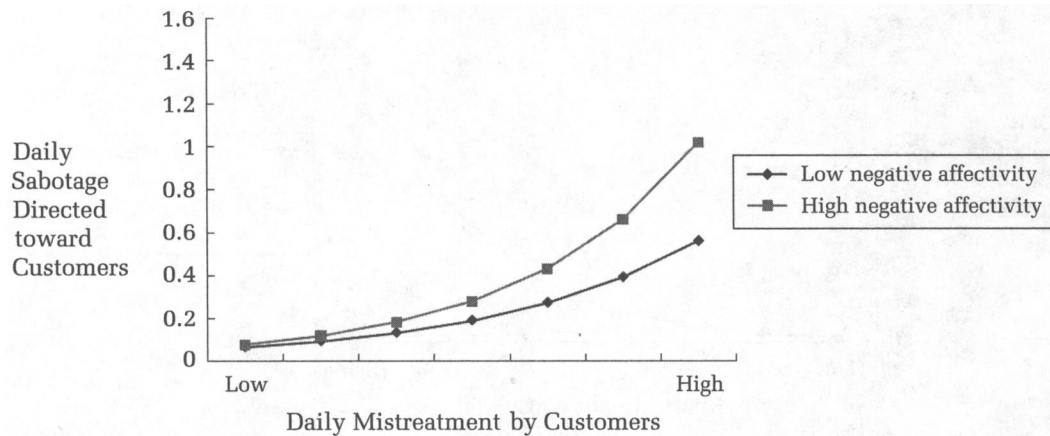
log-linear slope coefficient for mistreatment by customers was not significant ($\beta_{10} = -0.55$, $p .05$); however, when self-efficacy for emotional regulation was low (i.e., 1 s.d. below the mean), the log-linear slope coefficient was positive and significant ($\beta_{10} = 1.17$, $p < .01$), thus supporting Hypothesis 3. Regarding the actual size of the effect, for each unit increase in mistreatment, employees whose scores on self-efficacy for emotional regulation were one point higher than the mean score would report a 53 percent decrease in sabotage activities, whereas employees who scored one point lower than the mean score would report a 141 percent increase in sabotage activities.

Job tenure was significantly related to the relationship between daily mistreatment by customers and sabotage directed toward customers ($\gamma_{170} = -0.55$, $p < .05$). As presented in Figure 4, this relationship was weaker for employees with longer job tenure than for those with shorter job tenure.

Further, simple slope tests showed that when job tenure was longer (i.e., 1 s.d. above the mean), the log-linear slope coefficient for customer mistreatment was not significant ($\beta_{10} = 0.18$, $p .05$), whereas when job tenure was shorter (i.e., 1 s.d. below the mean), the log-linear slope coefficient was positive and significant ($\beta_{10} = 0.72$, $p < .05$), thus supporting Hypothesis 4. Regarding the actual size of effect, for each unit increase in mistreatment, employees whose job tenures were one year longer than the mean job tenure would report a 27 percent increase in sabotage activities, whereas employees whose job tenures were one year shorter than the mean would report an 84 percent increase.¹

¹ In the final cross-level moderation model, employee age had a positive moderation effect on the level 1 mistreatment-sabotage relationship, which was in the opposite direction of the moderation effect of job tenure.

FIGURE 2
Negative Affectivity as a Moderator of the Relationship between Daily Mistreatment by Customers and Daily Sabotage Directed toward Customers



Employees' service rule commitment was significantly related to the relationship between daily customer mistreatment and customer-directed sabotage ($\gamma_{180} = -1.33, p < .01$). As presented in Figure 5, the relationship between mistreatment by customers and customer-directed sabotage was weaker for employees with higher levels of rule commitment than those with lower levels of rule commitment. Specifically, simple slope tests showed that when service rule commitment was high (i.e., 1 s.d. above the mean), the log-linear slope coefficient for customer mistreatment was not significant ($\beta_{10} = 0.46, p > .05$), whereas when service rule commitment was low (i.e., 1 s.d. below the mean), the log-linear slope coefficient was positive and significant ($\beta_{10} = 1.06, p < .01$), thus supporting Hypothesis 5. Regarding the actual size of the effect, for each unit increase in mistreatment, employees who scored one point higher in the service rule commitment than the mean would report a 22 percent increase in sabotage activities, whereas employees who scored one point lower than the mean would report a 202 percent increase in sabotage activities.

Given the significant, positive correlation between age and job tenure ($r = .27, p < .01$), this finding pattern may indicate the existence of a suppressor effect between these two variables. However, after removing age from the model in a post hoc analysis, we found that job tenure's moderation effect did not decrease much in magnitude (gamma [γ] changed from -0.55 to -0.47) and was still significant. As such, even if the suppressor effect existed, its impact on the parameter estimation was not substantial. Therefore, we conclude that the observed moderation effect of job tenure was not a statistical artifact.

Finally, at the unit level, supervisor support climate was not significantly related to the relationship between daily customer mistreatment and customer-directed sabotage. Thus, Hypothesis 6 was not supported.

DISCUSSION

The current study is one of the first to examine the relationship between mistreatment of employees by customers and employee sabotage of customers. In addition to considering the emotion-based justice perspective adopted by Skarlicki et al. (2008), we also introduced a resource-based perspective to conceptualize the customer service interaction. As a result, we were able to examine both the emotion- and resource-based mechanisms underlying the mistreatment-sabotage linkage. Specifically, the resource-based moderators (job tenure and service rule commitment) contributed significantly to explaining the customer mistreatment-customer-directed sabotage relationship after the emotion-based moderators (i.e., negative affectivity and self-efficacy for emotional regulation) were controlled, suggesting that both mechanisms are important in explicating the mistreatment-sabotage linkage. Further, the current study examined employee sabotage behavior and its cause daily, illustrating a new means for understanding counterproductive behaviors.

Theoretical Implications

The current findings have several important theoretical implications. First, drawing on both emotion- and resource-based perspectives, we found substantial within-subject variation in employees'

FIGURE 3
Self-Efficacy for Emotional Regulation as a Moderator of the Relationship between Daily Mistreatment by Customers and Daily Sabotage Directed toward Customers



daily customer-directed sabotage behaviors and that, assessed daily, mistreatment by customers significantly predicted such variation. This finding extends previous theoretical frameworks for counterproductive behavior by suggesting a more acute and time-based mechanism. Specifically, previous studies have conceptualized job attitudes (e.g., Mount, Ilies, & Johnson, 2006), perceived organizational justice (e.g., Fox et al., 2001), workplace job stressors, and chronic frustration (e.g., Fox & Spector, 1999; Penny & Spector, 2005) as proximal predictors of counterproductive behavior. However, these predictors are all relatively stable and may only account for between-person differences in counterproductive behavior. In other words, previous theoretical frameworks have not been able to predict and detect systematic within-subject variance in counterproductive behaviors. In contrast, our finding underscores the importance of understanding time-variant predictors for within-person

fluctuation in counterproductive behavior. Specifically, the current finding suggests that an acute triggering event, such as mistreatment by a customer, may be an important component of the process leading to counterproductive behavior. In this sense, the relatively stable workplace-related social and cognitive predictors may account for the overall propensity of an employee to engage in counterproductive behavior, whereas the acute triggering event may activate this propensity and transform it into actual behavior.

Second, previous studies have largely focused on demonstrating the detrimental main effect of mistreatment by customers (e.g., Dormann & Zapf, 2004; Grandey et al., 2004; Grandey et al., 2007) but paid relatively little attention to how this negative effect may be decreased or amplified. Investigating both the emotion- and resource-based mechanisms enabled us to address this gap by examining how individual and contextual variables may serve as

FIGURE 4
Job Tenure as a Moderator of the Relationship between Daily Mistreatment by Customers and Daily Sabotage Directed toward Customers

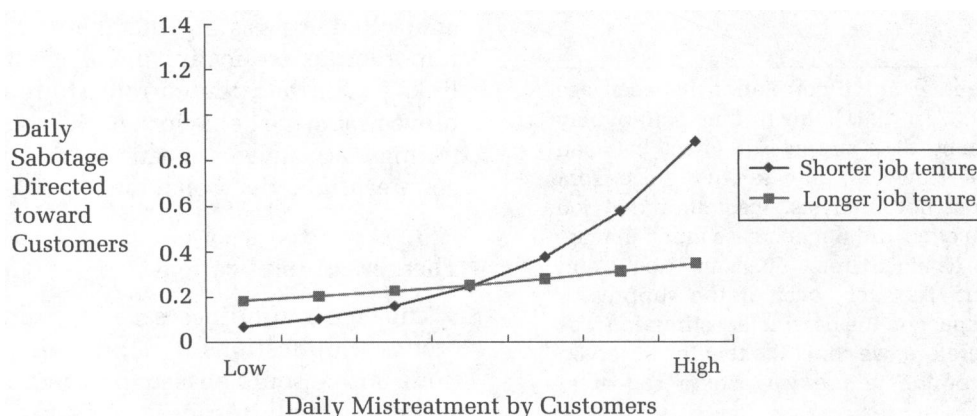
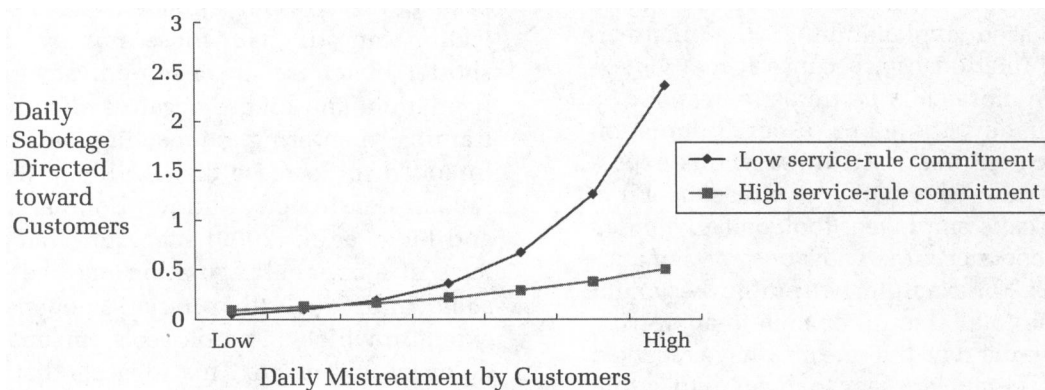


FIGURE 5
Service Rule Commitment as a Moderator of the Relationship between Daily Mistreatment by Customers and Daily Sabotage Directed toward Customers



boundary conditions that influence this daily relationship. Specifically, our findings demonstrated that emotion- and resource-based variables might exacerbate (in the case of negative affectivity) or diminish (in the case of job tenure, self-efficacy for emotional regulation, and service rule commitment) the negative influence of customer mistreatment.

Third, the current study contributes to the limited yet growing research that applies the resource perspective to explaining employee behaviors. We found that cognitive (e.g., job tenure) and motivational (e.g., service rule commitment) resource mechanisms coexist with emotion-based mechanisms in the process of regulating customer service interactions. These findings not only support the theoretical resource perspective, but also extend it by addressing some important types of individual resources that have been largely ignored in the literature, thus underscoring the utility of considering multiple types of resources in efforts to understand employees' behavioral reactions to customer mistreatment. Further, building on and extending the prior research on the buffering role of contextual resources (Bacharach & Bamberger, 2007; Bacharach et al., 2008), we simultaneously considered the moderating effects of both contextual, unit-level supervisory support resources and individual-level resources. We found that individual-level resources had a more significant impact than contextual ones, suggesting that these two types of resources play different roles.

However, the lack of a significant finding for supervisory support climate does not imply that it is not important for diminishing the effect of customer mistreatment. Three factors may have contributed to the nonsignificant finding. First, it is likely that the mistreatment-sabotage relationship would need to be tempered by resources available

at the time of mistreatment. Given that perceived supervisory support was measured in the follow-up survey, seven months after the daily survey phase, if supervisor support climate changed significantly during our study, a potential mismatch exists between the timing of this moderator and the target relationship. Although no personnel change in the sample and no change in organizational policies occurred during this period, an ideal approach would be to assess supervisor support climate at about the same time a daily survey is conducted. Second, the relatively short average tenure of sample members (1.39 years) may have made it difficult for employees' shared perceptions of supervisory support to solidify and exert an effect. Therefore, the full potential of the resource effect of supervisory support climate may not have been materialized in this sample, as it probably did in Bacharach et al.'s (2008) sample, in which the average tenure was over 8 years. Finally, given our complex research design involving three levels of analysis, this study only included 37 units at level 3, as compared with the 144 units in Bacharach et al. (2008). Our sample probably offered insufficient statistical power with which to detect the cross-level moderation effect of unit-level supervisor support climate on the within-person relationship between customer mistreatment and employee sabotage. To appropriately evaluate the moderation effects of unit-level supervisor support climate, future studies need to investigate a larger number of units, match the timing of measurement of climate and the mistreatment-sabotage relationship, and allow sufficient time for the climate's effect to reach its maturity. In addition, future research should continue to examine the relative importance of different sources of resources in influencing individual behaviors at work.

It should also be noted that, as a control variable, participant's daily call flow volume was not significantly related to the frequency of daily sabotage of customers. This may seem to be contradictory to the resource-based explanation of the mistreatment-sabotage relationship, because it may be expected that the more calls participants respond to on a particular day, the more resource depletion they experience on that day. However, this expectation may not be reasonable for two reasons. First, the number of calls employees took on a given day may not be a good measure of how busy or demanding the day was. For example, two employees might spend the same total amount of time to answering calls on a particular day, but one may have received many short calls that were easy to respond to, while the other received a few long calls that were difficult to respond to. Although the second employee responded to fewer calls, he or she may have experienced more resource depletion because those calls were more demanding. Second, as we mentioned in the introduction section, by collaborating with customers, solving their problems, and fulfilling their service needs, service employees may be able to gain resources. Therefore, a higher number of calls does not necessarily translate into a higher likelihood of depletion of employee resources. Taken together, these points suggest that the null effect of daily call flow volume is not necessarily contradictory to a resource-based explanation.

Practical Implications

The current findings also have some important practical implications. First, this study shows the potential value of emotion- and resource-related variables for the selection, training, and development of employees for service jobs. Specifically, the protective effect of job tenure endorses the importance of job knowledge for performing service jobs. Accordingly, training may be an important way to develop employees' job knowledge for dealing with mistreatment by customers. In addition, one anonymous reviewer pointed out that job tenure may provide employees with social resources as well. For example, experienced workers may have strong social networks of colleagues who can rely on each other and support each other. Thus, the buffering effect of job tenure may also signify that a solid network of colleagues and the feeling that one can rely on coworkers can alleviate daily work hassles, such as mistreatment by customers.

Further, previous studies (e.g., Bono & Vey, 2007; Judge, Woolf, & Hurst, 2009) have suggested using affect-related personality traits (e.g., extraversion

and neuroticism) to select employees for positions that require emotional regulation. Even in situations in which employees cannot be hired on the basis of these resource-related variables, an organization can still help those employees who have shorter job tenure, lower self-efficacy for emotional regulation, and higher negative affectivity through training, mentoring, counseling, and other tactics intended to decrease the likelihood that they will sabotage customers. Further, Bono and Vey (2007) and Judge et al. (2009) suggested that negative effects of emotional regulation may be stronger for some individuals than others, depending on the extent to which an employee's personality and job do or do not match. This suggests that it is important to pay attention to person-job fit, in terms of fit between an employee's personality and the service job characteristics in practice.

Second, the current results demonstrate that employees who were more committed to organizational customer service rules were less likely to sabotage customers in the face of mistreatment by customers. This finding points to the utility of clarifying organizational policies and improving employee understanding, acceptance, and internalization of service rules as an intervention strategy to prevent customer-directed sabotage. It is important for organizations to explain why these rules exist to their employees. Toward this end, organizations may increase employees' awareness of the importance of winning customer satisfaction and loyalty in a competitive market and improve their understanding of how the service rules may help in achieving this goal. It is equally important for organizations to assure the employees that these rules are not intended to encourage their mistreatment by customers (Bacharach et al., 2002). As such, it is advisable for managers to openly discuss, set, and communicate their customer service rules with employees, to try to incorporate terms and protocols that aim to protect employees from customer mistreatment in their policies, and to implement enforceable incentive policies to reward commitment to service rules and punish deviation from them.

Third, both self-efficacy for emotional regulation and service rule commitment had a negative main effect on daily customer-directed sabotage behaviors. These main effects suggest that there are added benefits of selecting employees with higher self-efficacy for emotional regulation and enhancing employees' service rule commitment, because these two factors not only help employees to cope better and refrain from sabotage, but also enable them to better regulate their behaviors to begin with.

Limitations and Future Research

This study has several limitations. First, all the variables examined here were measured by self-reports. Thus, a potential concern with the results is contamination by common method variance. However, following Podsakoff et al. (2003), we separated the measures of individual resource variables and daily variables by two weeks. In addition, we also measured unit-level supervisory support climate in a separate follow-up survey. Our statistical analysis also controlled for the influence of social desirability bias. Therefore, it is unlikely that the relationships (especially the moderation relationships) found in the current study were due to common method bias. Nevertheless, future studies might use objective measures (e.g., customer service monitoring records) or the reports of others (e.g., customers might be tapped to report employee sabotage) to replicate the current findings.

Second, because daily mistreatment by customers and customer-directed sabotage were both measured in the afternoon on each workday, reversed causality is a potential concern. That is, employees may have treated customers badly and then received more mistreatment from those customers. However, reverse causality should not be a concern in the current study for two reasons. First, the sabotage measured here comprises behaviors that are usually done without a customer's full awareness (e.g., an employee purposefully transfers the customer to the wrong department or tells the customer that a problem is solved, but actually it is not); or the sabotage terminates the interaction between employee and customer (e.g., the employee purposefully disconnects the call). Thus, it would be impossible for a customer to mistreat an employee during such a call as a result of the employee's sabotage behavior. Second, it is very unlikely a customer will call back to reach the same employee after being sabotaged in a previous call. We carefully checked the call center's electronic data records to examine the possibility a given customer would be connected to the same agent twice in the same day during our daily survey period and found no evidence that any participant received a phone call from the same customer twice in a day. The company's information technology department also verified that it is very rare for a given customer to be connected to the same agent twice in the same day, because all the phone calls are connected automatically in a first-come, first-served order. As such, it is unlikely that any customer mistreatment of an employee reported in the current study was due to earlier sabotage by the same employee. Further, theoretically, the reverse causal explanation

could not account for the current moderation effects of the resource variables. For example, it is not likely that employees' service rule commitment would alter customers' negative reactions to employees' sabotage. For future research in settings such as ours, in which research design cannot naturally rule out reverse causality, we suggest researchers directly observe service episodes to determine the causal ordering of mistreatment by customers and sabotage directed at customers.

Third, the sample we used limits the generalizability of the current findings. For example, our findings may be culture-specific. Although call center operations and managerial practices may be similar in China and other countries, in Chinese culture it is a virtue to be polite in social interactions, even when one is being mistreated. Therefore, this cultural environment may have inhibited employee aggressive behavior, as such behavior might negatively reflect on the employees' self-identity. As such, the current relationship between mistreatment by customers and sabotage of customers may be weaker than those that would be observed in Western cultures. Further, the customer service interaction for call center employees is constrained to phone conversations, which limits the types of sabotage employees can engage in. This restriction of range may render the relationships observed in this study weaker than those that might be observed in other service industries in which employees interact with customers face-to-face. Alternatively, a face-to-face service context may inhibit customer-directed sabotage, because it may be easier for customers to detect sabotage, and it may have more severe consequences (e.g., escalated conflict [Harris & Reynolds, 2003]). Therefore, it is also possible that the relationship we observed here is stronger than what would be observed in face-to-face. As such, future research should cross-validate the current findings using employee samples from different cultures and with different modes of service delivery. In addition, the daily measure of mistreatment by customers we used was relatively narrow, because of the call center research scenario, potentially limiting the generalizability of the construct. Future research needs to develop more general measures of customer mistreatment to fit other service settings.

Fourth, our study is limited to the scope of the moderators examined. Drawing on the resource perspective, we focused our investigation on the moderators of employee personal characteristics related to their cognitive, emotional, motivational, and social resources. Future research might extend the resource perspective to examine whether other unit- and organization-level factors provide addi-

tional resources allowing employees to better handle customer mistreatment. For example, a customer-oriented service climate (Schneider, 1990) might serve as a motivational force that helps employees stick to service rules. Contextual influences such as these make employees less likely to fall prey to engaging in negative behaviors toward customers when faced with customer mistreatment.

Fifth, our study used a general measure for dispositional negative affectivity. The correlations between items were quite sizable (mean $r = .41$, range = .25–.60). In fact, exploratory factor analysis clearly suggested that all items loaded on a single factor. Therefore, we were not able to separate different specific types of “trait emotions” (and test whether they had different patterns of influence on the relationship between daily mistreatment by customers and customer-directed sabotage). Nevertheless, it has been long recognized that different negative emotions, such as anger, disappointment, sadness, and shame, may lead to different behavioral actions (Beal, Weiss, Barros, & MacDermid, 2005; Weiss & Cropanzano, 1996). Therefore, future studies should measure specific emotions rather than broader categories to further explain how specific emotions influence the customer mistreatment–customer-directed sabotage relationship.

Finally, as an anonymous reviewer pointed out, it would be interesting to know whether different types of moderators work independently or interactively in influencing the mistreatment–sabotage relationship. Our analysis showed that the correlations between moderators ranged from zero to moderate magnitude (see Table 1). Therefore, it seems that different types of moderators were relatively distinct from each other. We further conducted exploratory analysis to test the effects of the interactions between the level 2 emotion- and resource-based moderators on the level 1 random slope, as well as the cross-level moderation effects of level 3 supervisory support climate on the cross-level moderation effect of the level 2 emotion- and resource-based moderators. None of these interaction effects were significant. Therefore, it seems that the moderators considered in the current research influenced the target relationship independently. Nevertheless, future research should take a more theoretically sound approach to evaluating the interactive effect of different types of resources. One theoretical perspective that could be helpful to consider is the linking-pin hypothesis (Tangirala, Green, & Ramanujam, 2007), according to which supervisory resources often limit the beneficial effect of employees’ resources.

Notwithstanding the limitations, this study extends theoretical arguments based on both the emo-

tion perspective and the resource perspective to the investigation of employee customer-directed sabotage in relation to customer mistreatment of employees. The results strongly support the utility of simultaneously considering both theoretical perspectives to understand when (and thus why) employees engage in sabotage against customers, point out several promising avenues for future research in examining the effects of emotion- and resource-related factors at multiple levels and in a cross-cultural context, and offer concrete suggestions on what type of organizational interventions may reduce employee sabotage.

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APPENDIX

Scales for Daily-Level Measures

Daily Mistreatment by Customers

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:" (response scale: 0 = "never," 1 = "a few times," 2 = "half of the times," 3 = "a majority of the times," and 4 = "all the time").

1. Demanded special treatment.
2. Thought they were more important than others.
3. Asked you to do things they could do by themselves.
4. Vented their bad mood out on you.
5. Did not understand that you had to comply with certain rules.
6. Complained without reason.
7. Made exorbitant demands.
8. Were impatient.
9. Yelled at you.
10. Spoke aggressively to you.
11. Got angry at you even over minor matters.
12. Argued with you the whole time throughout the call.
13. Refused to listen to you.
14. Cut you off mid sentence.
15. Made demands that you could not deliver.
16. Insisted on demands that are irrelevant to your service.

17. Doubted your ability.
18. Used condescending language to you.

Daily Customer-Directed Sabotage

Participants received this instruction: "Please indicate whether or not you exhibited the following behaviors in interacting with your customers today:" (response scale: 0 = "no," 1 = "yes").

1. Hung up on a customer.
2. Intentionally put a customer on hold for a long period of time.
3. Purposefully transferred a customer to the wrong department.
4. Purposefully disconnected a call.
5. Told a customer that you fixed something but didn't fix it.



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