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Psychological Contract Breach and Destructive Voice: The Mediating Effect of Relative Deprivation and the Moderating Effect of Leader Emotional Support

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ABSTRACT

Psychological contract breach (PCB) and its consequences have mainly been studied from a social exchange perspective or an affective events perspective. In this study, we use a relative deprivation perspective to capture the experience of loss following PCB and its implications on employees' reactions. Drawing from relative deprivation theory, we propose that perceived PCB can elicit the feeling of relative deprivation, which, in turn, induces employee destructive voice. We also suggest that higher levels of supervisor emotional support can help mitigate the positive association of PCB with the feeling of relative deprivation, and thus destructive voice. We conducted three studies to test our theory. In Study 1, we obtained data from 168 subordinate–supervisor pairs in China. Using a three-wave time-lagged design, we tested and found the mediating effect of relative deprivation on the relationship between PCB and destructive voice. In Study 2, we obtained data from 293 subordinate–supervisor pairs in China. Using the same design, we replicated the findings in Study 1 and found support for the moderating effect of supervisor emotional support. In Study 3, we used self-report data of 170 participants from the United States over three waves. We controlled for alternative mediating variables and prior measures of the focal variables to gauge the effect of time. The results supported our proposed moderated mediation model. Altogether, our findings supported the applicability of relative deprivation theory to understand PCB and its consequences, offering a new lens to study PCB.

Keywords: psychological contract breach, relative deprivation theory, destructive voice, supervisor emotional support

Psychological Contract Breach and Destructive Voice: The Mediating Effect of Relative Deprivation and Moderating Effect of Supervisor Emotional Support

Psychological contract breach (PCB) — "employees' cognition that an employer has failed to meet one or more obligations" (Rousseau et al., 2018, p. 1084) — has been linked to various negative career and job-related consequences, including less career success or fewer career advancement opportunities (Griep & Vantilborgh, 2018b; Restubog et al., 2011). Its negative impact on employees has mainly been understood through the lens of social exchange theory (Blau, 1964) and affective events theory (Weiss & Cropanzano, 1996). From a social exchange perspective, PCB breaks the positive exchange based on relationships between employees and their organizations, evoking various negative reactions from employees. For example, PCB builds a perception of exchange unfairness described variously as inconsistent actions between making promises and fulfilling obligations on the part of an employer (Adam, 1965; Clinton & Guest, 2014). Additionally, PCB creates feelings of violation, such as emotional distress and feelings of anger and betrayal arising from organizational breach of promises (Dulac et al., 2008). PCB can also lead to thwarted felt obligation to the organization, namely "whether one should care about [the] organization's well-being and should help the organization reach its goals" (Eisenberger et al., 2001, p. 42; Chen et al., 2008; Deery et al., 2006). From the affective events perspective, the PCB denotes an unpleasant and uncomfortable work event that can give rise to negative emotions such as depression and anxiety (Conway & Briner, 2002), which then result in employees taking action, such as withdrawal or counterproductive work behavior, that can impair the organization's operations (Bordia et al., 2008; Griep & Vantilborgh, 2018a; Restubog et al., 2015).

Although studies so far have contributed significantly towards understanding the effects of PCB, there is an important psychological reaction it evokes that has not been adequately investigated. Relative deprivation theory contends that, when employees do not receive what they ought to, they will experience personal relative deprivation, described as the feelings of dissatisfaction stemming from the belief that one has been unjustly deprived of some desired things compared with standards of organizational obligation (Callan et al., 2011; Crosby, 1976). Based on relative deprivation theory, we argue that the PCB renders a relative deprived situation, placing individuals in an inferior and disadvantaged position. As employees fulfill their obligations but fail to receive what was promised (Morrison & Robinson, 1997; Rousseau, 1989), a PCB therein renders a situation of loss, in which employees not only lose primary outcomes (those that have been promised) but second-order outcomes (those that could have been achieved when the primary outcomes were received) as well (Morrison & Robinson, 1997). Furthermore, the theory contends that relatively deprived individuals tend to engage in behavior such as "voicing objection to the deprivation" (Zoogah, 2010, p. 160) to redress their mistreatment (Callan et al., 2011; Crosby, 1976; Smith et al., 2012). Applying this theoretical perspective, we propose that the PCB can engender employees' personal relative deprivation. This in turn motivates their destructive voice, a criticism targeting the organization in response to unfair treatment (Gorden, 1988).

Relative deprivation theory also suggests that people will experience less personal relative deprivation when their immediate environment provides cues that alter their judgment about the inferior position, such as ways found to attenuate the shock of loss or improve a situation (Bolino & Turnley, 2009; Crosby, 1976; Smith et al., 2012). For example, because supervisors serve as a proxy or representative of the employer in the employee perception (Dulac et al., 2008), their

emotional support provides for possible re-examination of the loss and increased hope. The acts of caring, comforting, or cheering up will influence employees' perceptions of disadvantageous situations created by PCB. As such, we expect that supervisor emotional support will weaken the association between PCB and personal relative deprivation. Figure 1 presents our research model.

----------Insert Figure 1 about here----------

Our research makes several contributions. First, we draw on relative deprivation theory to advance the understanding of PCB and its psychological and behavioral consequences, corresponding to recent calls for alternative mediating mechanisms for PCB and employee outcomes (Griep & Vantilborgh, 2018b). For example, in addition to responding to the damaged relationship between the two parties based on the principle of reciprocity in an employee-organization exchange relationship, we argue that people will respond to PCB according to the perceived loss of what they ought to have had. Our focus on personal relative deprivation also complements and extends the affective events perspective. Instead of focusing reductively on negative emotions, our focus on deconstructing personal relative deprivation helps delineate specific affective and behavioral reactions to PCB.

Second, we identify a new outcome of PCB: destructive voice. Studies on PCB has mainly investigated negative behaviors, such as counterproductive work behavior and withdrawal behavior, which can harm organizational operations (Griep & Vantilborgh, 2018a, 2018b; Tomprou et al., 2015). Although destructive voice may interrupt organizational functioning (Mackey et al., 2020; Maynes & Podsakoff, 2014), it allows employees to express their concerns and criticisms about issues that require managers' and organizations' attention, instead of simply aiming to harm or withdraw from the organization. Also, comparing to constructive or promotive voice, studies so far have rarely investigated destructive voice. We

believe that PCB studies should pay more attention to understand destructive because such an understanding should help managers and organizations communicate with employees and address their concerns about PCB and negative consequences.

Finally, our examination of the moderating effect of supervisor emotional support highlights the role of supervisors in mitigating the negative consequences of PCB. Previous research indicates that a good relationship with supervisors, such as leader-member exchange (also referred to as LMX), buffers against the devastating emotional effect of PCB (Dulac et al., 2008). Instead of focusing on LMX, which is a relationship that takes time to establish, our focus on supervisor emotional support demonstrates what supervisors can do for employees (providing emotional support) to alleviate personal relative deprivation after they experience PCB. Our paper also extends research on how supervisors can help employees cope with PCB (e.g., Zagenczyk et al., 2009; Lapointe et al., 2013) by identifying personal relative deprivation as a mechanism and destructive voice as an outcome that supervisors can help with.

Theoretical Background and Hypotheses

Psychological Contract Breach and Relative Deprivation

Relative deprivation theory posits that when there is perceived discrepancy between what an individual has and what he or she ought to have, the individual will experience personal relative deprivation (Crosby, 1976; Pettigrew, 2002). As elaborated by Smith et al. (2012), individuals experience personal relative deprivation when they compare themselves with their previous situations or others in a similar position. They then perceive that they have lost the desirable outcomes they deserve and are at a disadvantage. Personal relative deprivation is especially strong when people do not believe they are personally responsible for a situation. We draw on relative

deprivation theory to conceptualize PCB as a relative deprivation situation, in which deprivation is felt relative to not having promised outcomes that one ought to have from the organization.

The psychological contract (PC) is a cognitive schema (Rousseau, 2001), or "system of beliefs, representing an individual's perceptions of his or her own and another's obligations" [such as salary and career development opportunities], which is defined as the "duties or responsibilities one feels bound to perform" (Rousseau et al., 2018, p. 1081). When employees recognize that they have made their promised contributions but their organizations do not adequately reciprocate to them (Morrison & Robinson, 1997), they will perceive the PCB, a "negative discrepancy between employer obligations and the inducements it provides" (Rousseau et al., 2018, p. 1082).

PCB can give rise to personal relative deprivation for four reasons. First, it can be regarded as a signal that an individual has been disadvantaged by the employer (Ho, 2005). When an employer fails to deliver on promise after employees have already fulfilled their obligations, employees are likely to believe that their efforts and contributions are held in disdain or perceive themselves as undervalued (Zagenczyk et al., 2011). Second, when the PCB occurs, employees may feel uncertain or challenged over their relationship with their employer (Liem, 1987), such as in negotiating new roles or searching for opportunities (Turnley & Feldman, 2000). This can make individuals see themselves as having been placed in an inferior position within the organization. Third, when experiencing the PCB, employees lose not only primary outcomes but also second-order outcomes (Morrison & Robinson, 1997), which have their own valence and perceived attractiveness but are subject to the attainment of primary outcomes. For example, a loss of promotion can be a primary outcome in a PCB if the promotion was promised, which can then lead to the loss of second-order outcomes like recognition, self-esteem, or social status. These losses could play an important role in driving personal relative deprivation because they can lead

to perceptions of inferiority and disadvantage and signify loss of career potential. As relative deprivation is a reflective feeling following a comparison between what an individual has and ought to have, it can be especially acute when projecting into the future. Finally, feelings of relative deprivation are especially strong when people do not believe they are personally responsible for the situation (Crosby, 1976). As the PCB occurs after employees have done their part (Morrison & Robinson, 1997), they will attribute responsibility for the PCB to the employer and feel deprived by them.

Hypothesis 1: PCB is positively related to personal relative deprivation.

Personal Relative Deprivation and Destructive Voice

Relative deprivation theory suggests that the feeling of relative deprivation can trigger one's "voicing objection to the deprivation" (Zoogah, 2010, p. 160; Callan et al., 2011; Crosby, 1976; Smith et al., 2012) with an attempt to correct the problem (Farrell, 1983). Among the different types of voice identified in the literature (defensive, supportive, constructive, and destructive), we argue that destructive voice, an attempt to change rather than escape the current affairs (Mackey et al., 2020), might be the most relevant response to personal relative deprivation. Destructive voice is defined as "the informal and discretionary communication of hurtful, critical, or debasing opinions regarding work policies, practices, procedures, and so on" (Maynes & Podsakoff, 2014, p. 91). It describes a voluntary opposition to organizational change practices even when the change is necessary in providing the employee with escape from a problem, as they focus on self-protection and avoiding unnecessary trouble (Maynes & Podsakoff, 2014). Relatively deprived employees are less likely to engage in supportive voice, the voluntary expression of support for organizational work practices (Maynes & Podsakoff, 2014), as such voice could encourage breaching behavior from the organization. Relatively

deprived employees are also less likely to engage in constructive voice, the voluntary expression of ideas to improve work functioning (Van Dyne & LePine, 1998) because they tend to save this for responding to positive organizational treatment, such as organizational support (Bergeron & Thompson, 2020). For relatively deprived employees due to PCB, they do not have a good exchange relationship with the organization to motivate them to do so.

Voicing objection is a typical behavior from individuals feeling deprived (Callan et al., 2011; Crosby, 1976; Pettigrew, 2002; Smith et al., 2012; Zoogah, 2010) as it raises problems to be addressed. In brief, personal relative deprivation can influence destructive voice in three ways. Firstly, in the context of PCB, employees seek to understand why they cannot obtain what they believe they deserve after fulfilling their obligations (Lester et al., 2002). They are likely to scrutinize their work policies, practices, or procedures to identify problems in their organization (Pate et al., 2000) and then use their voice to criticize these to make managers and their organization aware of the problems or dissatisfying aspects of the work (Withey & Cooper, 1989).

Secondly, people who suffer from personal relative deprivation tend to have a strong motivation to overcome their perceived inferior situations and gain influence for the future (Zoogah, 2010) by adopting unconventional approaches to manipulate their environment. This is because, when employees find themselves disadvantaged due to PCB, using conventional approaches that adhere to the current rules of play is likely to be ignored (Stiles et al., 2000). Using a destructive voice to challenge the work environment (Lam et al., 2017; Morrison & Milliken, 2000) can thus more likely secure the attention of those who might ameliorate their situations.

Finally, by using destructive voice, those who experience personal relative deprivation may actually play a more substantial role in the change process. In this sense, personal relative

deprivation motivates employees to engage in destructive voice not only to actively object to the current situation (Gorden, 1988; Zoogah, 2010), but also to gain more influence over the future.

Hypothesis 2: Personal relative deprivation is positively related to employee destructive voice.

The Moderating Role of Supervisor Emotional Support

Relative deprivation theory posits that personal relative deprivation can be attenuated if individuals have the shock of losses cushioned and they are made to feel less undervalued (Crosby, 1976; Smith et al., 2012). Following this logic, we propose that emotional support from supervisors (i.e., defined as the perceived availability of thoughtful and caring supervisors with whom one can share inner feelings; Johnson & Johnson, 1997), such as care, listening, encouragement, or sympathy (Methot et al., 2016) can weaken the effect of PCB on personal relative deprivation for three reasons. First, individuals may feel relative deprivation more strongly when they realize they could ultimately lose more than expected, such as potential second-order outcomes, due to PCB. Having a higher level of emotional support from supervisors after PCB may help employees better cope (Tomprou et al., 2015) by buffering these individuals from the overwhelm of loss (Gillies & Neimeyer, 2006). Second, personal relative deprivation is likely to occur after PCB because individuals are likely to interpret that they are undervalued by organizations that fail to meet their promises. When supervisors offer emotional support after employees experience PCB, such as displaying care and empathy or establishing interpersonal bonds, the employees may feel social acceptance, which can boost their self-evaluation (Leary, 1999) and help them rebuild their self-worth. Third, supervisor emotional support can help employees affected by PCB to process emotional difficulties such as frustration and anger (Robinson & Morrison, 2000). When supervisors comfort employees and express care and

empathy, the negative feelings are likely to be assuaged because such support reflects supervisor appreciation of employees, which may make them feel responded to and secure (Olofsson et al., 2003). Indeed, supervisors may play a salient role in reducing employee frustration through emotional support by creating emotional bonds with them and being attentive to their needs (Oplatka & Eizenberg, 2007). In sum, a higher level of supervisor emotional support helps employees better cope with emotional hurdles and mitigate the negative impacts of PCB.

In contrast, when employees experience less interpersonal emotional support from their supervisors following PCB, they may miss out on an effective buffer to the associated negative sentiments. They may direct blame towards the organization more intensely because of a perception that nobody in the organization values their effort. They may not be guided to move forward and may struggle to adapt after the loss (Shepherd, 2003). Accordingly, they are more likely to be lost in toxic cycles of defeat and feelings of inferiority, ultimately intensifying the personal relative deprivation due to PCB. Based on the above reasoning, we propose:

> *Hypothesis 3: Supervisor emotional support moderates the relationship between PCB and personal relative deprivation, such that the relationship is weaker when supervisor emotional support is higher.*

The Moderated Mediation Model

Overall, we propose a first-stage moderated mediation model to explain why and when PCB will lead to destructive voice. The premise is that, after experiencing the PCB, employees will feel relatively deprived by their organization for losing what they perceive they deserve, and thus are likely to become critical of their work environment. We argue that this feeling and the subsequent destructive voice will be mitigated if supervisors offer emotional support to make them

believe that they are cared for and encouraged to escape the loss. We therefore propose the following moderate mediation effect:

Hypothesis 4: Supervisor emotional support moderates the indirect effect of PCB and employee destructive voice via personal relative deprivation, such that the indirect effect is weaker when supervisor emotional support is higher.

Overview of the Studies

We conducted three studies. The first two used samples from China, where more collectivist work contexts emphasize relationships and cooperation (Hui et al., 2004). Indeed, Chinese employees value the relational elements of employment because of their social orientation towards harmonious relationships (Yang, 1995). With PCB implications on the employee-employer relationship and supervisor emotional support likely within the employee-supervisor interpersonal context, Chinese corporate cases provide a suitable environment to investigate the impact of PCB on employees (Lo & Aryee, 2003), and the moderating role of supervisors' emotional support. Nevertheless, to enhance generalizability of our findings and respond to a call for widened PC research (Rousseau & Schalke, 2000), we conducted Study 3 using a US sample where there is greater emphasis on the Western values of individualism and personal uniqueness. Contrastive samples from these two distinct cultural settings provides for stronger examination of our hypotheses. All these three studies were approved by the Asia Pacific Delegated Ethics Review Committee (DERC) in The Australian National University (the protocol number is 2017/688).

We used a two-week interval between surveys in Studies 1 and 2 and a one-month interval in Study 3. As indicated by Rousseau et al. (2018) in their dynamic phase model of PC processes, employees or employers can take action after PCB to reshape their relationships. In order to

examine employees' responses to PCB, it is desirable to use a relatively short time interval when measuring their PCB and their responses, while capturing them at a separate time to reduce common methods bias. Therefore, we followed previous PC research (Deng et al., 2017; Mai et al., 2016) to use two-week intervals in Studies 1 and 2 when measuring PCB, personal relative deprivation, and destructive voice. To further allow personal relative deprivation and destructive voice to unfold and cross-validate our findings in a different time frame, we then extended the interval to one month in Study 3.

To examine the particular characteristics of the mediating role of personal relative deprivation in the three studies, we controlled for alternative mediating mechanisms as identified in previous PCB research. In Studies 1, 2, and 3, we controlled for: felt obligation to the organization, and feelings of violation. In Study 3, we also controlled for: negative affect, exchange unfairness, and unmet expectation. These control variables are classified as cognitive (felt obligation to the organization, exchange unfairness, and unmet expectation) and affective (feelings of violation and negative affect) reactions to PCB, as identified in the literature (Chen et al., 2008; Clinton & Guest, 2014; Conway, & Briner, 2002; Dulac et al., 2008).

Study 1

Method

Participants and procedure. We collected multi-wave, multi-source data from supervisors and their immediate subordinates at a large manufacturing company located in central China. The fifth author collected data from subordinate-supervisor pairs in Chinese companies for Study 1. He contacted his postgraduate (Master of Business Administration) and doctoral students, who are senior managers in Chinese companies. After receiving their consent, he and two of his students took paper-based questionnaires to the Human Resource (HR) departments, whose

managers distributed them to employees. After they had completed them, the students returned to the companies to collect the questionnaires.

Two hundred and forty full-time subordinates and their direct supervisors agreed to participate in the study. One subordinate was randomly selected under each supervisor. A coding scheme was used to match the supervisor-subordinate data. We distributed surveys at three time points. Each survey included a cover letter explaining the study objectives and assurances of privacy and confidentiality, with a consent form stating that participation was voluntary. At Time 1, the subordinates were asked to report PCB and the control variables, including feelings of violation, felt obligation to the organization, gender, work tenure, and educational level. Two weeks later at Time 2, another set of subordinate surveys was distributed to measure personal relative deprivation. Two further weeks on at Time 3, the supervisors received surveys to report on their employees' destructive voice. All completed surveys were returned in sealed envelopes provided by the research team.

This data was collected from 120 companies, spanning the service sector (financial services, real estate, transportation services, banking, airports, education, restaurants, retail, medical services, and government services), the manufacturing sector (automotive, vertical transportation, petrol, food, and glass), and the technology sector (internet providers, e-commerce). After eliminating responses with missing data and those unable to be matched, the final sample consisted of 168 subordinates and their supervisors (response rate = 70%). Of the subordinates, 47.6% were female, their average job tenure was 57.62 months (S.D. = 54.10), and 61.9% held a bachelor's or higher degree. The average age for subordinates in Study 1 was 28.97.

Measures. In the survey, we used a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). All items were originally developed in English. We used the translation and back

translation procedure recommended by Brislin (1986) and Ægisdóttir et al. (2008). Two bilingual academic staff with command of both Chinese and English initially translated the English scales into Chinese; then a third bilingual researcher translated the Chinese scales back into English to ensure the semantic and conceptual equivalence of constructs.

PCB. The 5-item scale developed by Robinson and Morrison (2000) was used to measure perceived PCB. Sample items included "So far my employer has not done an excellent job of fulfilling its promises to me" and "My employer has broken many of its promises to me even though I've upheld my side of the deal". The Cronbach's alpha for this scale was .98.

Personal relative deprivation. We measured personal relative deprivation in the context of PCB by adopting items from Callan et al. (2011). Four items were used: "I feel deprived when I think about what I have compared to what I was promised to have from my employer", "I feel disadvantaged compared to what I was promised to have from my employer", "When I compare what I have with what I am promised to have from my employer, I realize that I am quite worse off", and "I feel dissatisfied with what I have compared to what I am promised to have from my employer". The Cronbach's alpha for this scale was .95.

Destructive voice. Supervisors rated their employees' destructive voice using the 5-item scale developed by Maynes and Podsakoff (2014). Supervisors are appropriate raters of employee destructive voice because voice is an upward communication towards authority (Maynes & Podsakoff, 2014). Employees are likely to voice to their supervisors because they are the most immediate contact with influence over the employees' work practices and procedures. Sample items included "He/she frequently makes overly critical comments regarding how things are done in the organization" and "He/she harshly criticizes the organization's policies, even though the criticism is unfounded". The Cronbach's alpha for this scale was .98.

Control variables. We controlled for employees' gender, work tenure, and education because previous research has shown that these demographic variables can affect the relationship between PCB and employee behaviors (Deery et al., 2006; Kakarika et al., 2017). For example, compared with men, women may be more vulnerable and sensitive to PCB and are more likely to view their relationships with employers as threatened (Kakarika et al., 2017). Additionally, more educated employees have more alternative job opportunities and are reported to be less likely to assess the employment relationship favorably; meanwhile employees with longer tenure tend to view the employment relationship as more cooperative because the older tend to enjoy the benefits of seniority in their employment (Deery et al., 2006). We also controlled for employees' felt obligation to the organization, which captures exchange qualities between employees and organizations (Eisenberger et al., 2001) and feelings of violation, which captures negative feelings towards organizations, such as betrayal and frustration, when the social exchange relationship between employees and organizations are damaged (Robinson & Morrison, 2000). Felt obligation to the organization was assessed with seven items ($\alpha = .89$, for example, "I feel a personal obligation to do whatever I can to help the organization achieve its goals") as developed by Eisenberger et al. (2001). Feelings of violation was assessed with four items ($\alpha = .96$, for example, "I feel a great deal of anger toward my organization") as developed by Robinson and Morrison (2000).

Measurement models. We conducted confirmatory factor analyses (CFA) using Mplus 7.0 (Muthén & Muthén, 2012) to examine the distinctiveness of the study's variables based on the chi-square statistics and fit indices, including the root mean square error of approximation (RMSEA), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), and the standardized root mean square residual (SRMR) (Hu & Bentler, 1999). The results, presented in Table S1,

suggest that the 5-factor model (PCB, personal relative deprivation, felt obligation to the organization, feelings of violation, and destructive voice) had a good fit (χ^2 = 531.41, *df* = 265, CFI = .95, TLI = .95, RMSEA = .08, SRMR = .05) and a better fit with the data than alternative models did. These results suggested that the variables included in the current study were distinct from each other.

Results and Discussion

Table 1 presents the basic statistics of variables. To test our hypotheses, we built a structural equation model (SEM) in which PCB was indicated by five items, felt obligation to the organization was indicated by seven items, feelings of violation were indicated by four items, personal relative deprivation was indicated by four items, and destructive voice was indicated by five items. In the model, PCB at Time 1 predicted personal relative deprivation at Time 2, which in turn predicted destructive voice at Time 3. Gender, work tenure, education, felt obligation to the organization, and feelings of violation at Time 1 were included to predict both personal relative deprivation at Time 2 and destructive voice at Time 3. The model fit the data well (ML-χ^2 = 606.31, *df* = 334, CFI = .95, TLI = .94, RMSEA = .07, SRMR = .05).

Table 2 presents the SEM results. PCB was positively related to personal relative deprivation (*B* = .58, S.E. = .08, $p < .001$), supporting Hypothesis 1. Personal relative deprivation was positively related to destructive voice (*B* = .25, S.E. = .11, *p* = .021), supporting Hypothesis 2. We then used bootstrapping confidence intervals to test the indirect effect, which was significant (95% bootstrapping CI = [.05, .27]).

----------Insert Tables 1 and 2 about here----------

In Study 1, we did not examine the moderation effect of supervisor emotional support on the relationship between PCB and personal relative deprivation. Also, although we considered the role

of felt obligation to the organization and feelings of violation, these two variables were assessed at Time 1 but not Time 2. As such, we were not entirely sure whether personal relative deprivation had a unique effect in explaining the relationship between PCB and destructive voice if alternative mediating mechanisms were measured at the same time. We thus conducted Study 2 to address these issues.

Study 2

Method

Participants and procedures. We collected multi-wave, multi-source data from supervisors and their direct subordinates, from companies in service and manufacturing industries across China. The sixth author collected data for Study 2, contacting HR departments in Chinese companies. Participation in the study was voluntary and all participants were informed about the research purpose and assured of confidentiality. After receiving the necessary consent, the coauthor had his research assistants provide paper-based questionnaires to the HR managers, who distributed them to employees. The research assistants then returned to collect the completed questionnaires.

In Study 2 we collected data at three time points. At Time 1, we approached 420 full-time subordinates and asked them to report any PCB. Two weeks later at Time 2, subordinates were asked to rate their personal relative deprivation, felt obligation to the organization, feelings of violation, and perceived supervisor emotional support. We measured supervisor emotional support at Time 2 because we aimed to examine supervisor influence on employees who had experienced PCB. At Time 3, two weeks later still, direct supervisors assessed their subordinates' destructive voice.

We collected data from 81 companies including in the service, manufacturing, and technology (internet and e-commerce) sectors. We collected data from supervisors and subordinates in various departments (including finance, human resources, operations, sales, marketing, and IT). After matching the subordinate and supervisor surveys across the three time points, we obtained a final sample of 293 subordinate questionnaires (response rate = 70% against 420 employees who were invited) and 124 supervisor questionnaires (response rate = 69% against 179 supervisors who were invited). Of the 293 employees, 36.9% were women, their average job tenure was 53 months (S.D. = 53.20), and 51.8% held a bachelor's or higher degree. The average age for subordinates was 30.24.

Measures. Similar to Study 1, we used a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). We translated the scales not used in Study 1 following the same translation and back translation procedure. We used the same measures as in Study 1 for assessing PCB (α = .91), personal relative deprivation (α = .94), and destructive voice (α = .93). As the destructive voice of 293 subordinates were rated by and nested in 124 supervisors, we calculated the ICC(1) value, which was .64 (F = 5.27, p < .001).

Supervisor emotional support. We used the 5-item scale developed by Methot et al. (2016) to measure supervisor emotional support. Sample items included "My supervisor provides encouragement and emotional support" and "My supervisor empathizes with my concerns and feelings". The Cronbach's alpha for this scale was .94.

Control variables. As in Study 1, we controlled for the subordinates' demographic variables (gender, work tenure, and education level). We also included felt obligation to the organization and feelings of violation as control variables. A 7-item scale from Eisenberger et al. (2001) was used but the reliability of the 7-item scale did not meet the reliability threshold (.64,

which was slightly below .70). Consequently, one item with the lowest inter-item correlation and corrected item-total correlation was removed, an approach also used by Ferris et al. (2015). The Cronbach's alpha was .90 for the remaining six items. Feelings of violation were assessed with the four items developed by Robinson and Morrison (2000). The Cronbach's alpha was .94.

Measurement models. We ran a CFA to examine a 6-factor model (PCB, personal relative deprivation, feelings of violation, felt obligation to the organization, supervisor emotional support, and destructive voice). As employees were nested within 124 supervisors, we used a design-based modeling approach that "takes the multilevel data or dependency into account by adjusting for parameter estimate standard errors based on the sampling design" (Wu & Kwok, 2012, p. 17) (TYPE = COMPLEX, ESTIMATOR = MLR; that is, maximum likelihood estimation with robust standard errors in Mplus). MLR is the estimator for a COMPLEX model in Mplus (Muthén & Muthén, 2012). This design-based modeling approach is appropriate for our data because it handles non-independent data structures when mechanisms are at a single level, the employee level in this study (Wu & Kwok, 2012). As shown in the supplementary Table S2, the model fit the data well (MLR χ^2 = 579.54, *df* = 362, CFI = .96, TLI = .95, RMSEA = .04, SRMR = .04) and had a better fit than alternative models where items for different concepts were loaded onto the same factor.

----------Insert Table 3 about here----------

Results and Discussion

Table 3 presents the basic statistics of the variables. We used latent moderated structural equations (Klein & Moosbrugger, 2000) implemented in Mplus (Muthén & Muthén, 2012) to test the hypotheses. We tested the moderating role of supervisor emotional support by introducing its latent interaction effect at Time 2 and PCB at Time 1 on personal relative deprivation at Time 2.

We also included feelings of violation and felt obligation to the organization at Time 2 as alternative mechanisms. Again, we used a design-based modeling approach in our estimation to take non-independence into account (TYPE = COMPLEX RANDOM, ALGORITHM = INTEGRATION, ESTIMATOR = MLR in Mplus). Table 4 presents the unstandardized estimates of the model. Because conventional fit indices for the latent moderated structural equations were not available, we used a likelihood ratio test and found that the latent interaction model was better than the model when all interaction effects were set to zero (Δ2LL (df = 3) = 36.95, p < .001).

PCB was positively related to personal relative deprivation (B = .35, S.E. = .07, p < .001), supporting Hypothesis 1. Personal relative deprivation was positively related to destructive voice (B = .25, S.E. = .12, p = .038), supporting Hypothesis 2. In addition, PCB and supervisor emotional support had a significant interaction effect on personal relative deprivation (B = −.27, S.E. = .08, p = .001). The simple slope analysis (Aiken & West, 1991) and the interaction plot in Figure 2a showed that PCB did not have a significant relationship with personal relative deprivation when supervisor emotional support was higher (1SD above the mean) (simple slope = .12, S.E. = .10, p = .215), but the relationship was significantly positive when supervisor emotional support was lower (1SD below the mean) (simple slope = .58, S.E. = .10, p < .001). Hypothesis 3 was thus supported.

Bootstrapping analysis is not available when a complex model is used to analyze nested data in Mplus. Accordingly, we reported estimates of conditional indirect effects under the MLR estimator in the latent moderation effect model and also used a Monte Carlo method (MacKinnon et al., 2004; Selig & Preacher, 2008) to obtain confidence intervals for the conditional indirect effects. Personal relative deprivation significantly mediated the relationship between PCB and destructive voice when supervisor emotional support was lower (conditional mediation effect =

.24, S.E. = .12, p = .042; 95% Monte Carlo CI = [.01, .29]) but did not mediate the relationship when supervisor emotional support was higher (conditional mediation effect = .00, S.E. = .03, p = .938; 95% Monte Carlo CI = [−.02, .10]), supporting Hypothesis 4.

We also found that the interaction between PCB and supervisor emotional support was significantly related to feelings of violation (B = −.31, S.E. = .08, p < .001), which was consistent with previous findings that good relationships with supervisors attenuated the negative effect of PCB on feelings of violation (Dulac et al., 2008). Neither felt obligation to the organization nor feelings of violation significantly predicted destructive voice above and beyond personal relative deprivation. Finally, we estimated a moderated mediation model using the key variables only (PCB at Time 1, personal relative deprivation and supervisor emotional support at Time 2, and destructive voice at Time 3) and obtained virtually identical results that supported our hypotheses.

----------Insert Table 4 and Figure 2 about here----------

We next conducted Study 3 to improve the rigor of our investigation. In Study 3, we controlled for alternative mediators (unmet expectation, exchange unfairness, and negative affect) so as to demonstrate the unique effect of personal relative deprivation in explaining the association between PCB and destructive voice. We measured supervisor emotional support and all mediators in both Time 1 and Time 2 so that we could better investigate the time sequence suggested in our theory. Finally, we used self-reported destructive voice in Study 3 to ensure that our findings on destructive voice were not affected by the reporting sources (who reports the behavior) and used a sample from the United States to enhance the generalizability of our findings.

Study 3

Method

Participants and procedures. We recruited 240 full-time employees in the United States through MTurk and administered multi-wave surveys. We invited those above 18 years old, employed full-time, and US-based, and informed them of the research purpose, assuring them of confidentiality with their responses. Participants completing the survey received payment. At the three points outlined below, they were compensated USD2.40, USD1.75, and USD1.75, respectively.

Again, we collected data at three time points. At Time 1, participants were asked to report PCB, perceived supervisor emotional support, personal relative deprivation, destructive voice, and five alternative psychological mechanisms (feelings of violation, felt obligation to the organization, negative affect, unmet expectation, and exchange unfairness). One month later at Time 2, the participants were asked to rate perceived supervisor emotional support, personal relative deprivation, and the five alternative mechanisms again. Another month later at Time 3, participants self-assessed their destructive voice over the previous month.

Participants were from various industries. They worked in accounting, banking, and finance (n=19), hospitality and events management (n=6), public services and administration (n=5), business, consulting, and management (n=6), information technology (n=21), charities and volunteer work (n=1), law (n=2), retail (n=13), creative arts and design (n=6), law enforcement and security (n=2), sales (n=9), education (n=30), science and pharmaceuticals (n=8), energy and utilities (n=2), marketing, advertising, and public relations (n=2), social care (n=2), engineering and manufacturing (n=14), media and internet (n=3), transport and logistics (n=2), property and construction (n=8), healthcare (n=5), and travel (n=4). With regard to

employment status, 99.1% were permanent full-time employees while 0.9% were contract and part-time workers. The average working hours per week was 41.96 (S.D. = 5.56).

The final sample consisted of 170 valid participants who completed all three surveys (response rate = 71%), 50% of which were women. The average job tenure was 22.96 years (S.D. = 10.92) and 55.9% held bachelor's or higher degrees. The average age was 43.23.

Measures. As with the other studies, all measures were assessed using a Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). We used the same measurement for PCB at Time 1 (α = .86), personal relative deprivation at Time 1 and 2 (α = .96 and .97), supervisor emotional support at Time 1 and 2 (α = .94 and .91), and destructive voice as self-reported at Time 1 and Time 3 (α = .93 and .93).

Control variables. We controlled for the subordinates' demographic variables (gender, work tenure, and education level), felt obligation to the organization, and feelings of violation. We measured felt obligation to the organization using seven items (Eisenberger et al., 2001) at Time 1 and Time 2. The Cronbach's alphas were .90 and .87 for felt obligation to the organization at Time 1 and Time 2, respectively. Feelings of violation were measured using the same scale in Study 2 (Robinson & Morrison, 2000), and its Cronbach's alpha was .92 at both Time 1 and Time 2.

In this study, we also included negative affect (i.e., a concept that captures various negative sentiments, such as depression, anxiety, disgust, and boredom) (Van Katwyk et al., 2000), unmet expectations (i.e., employees' perception of failing to receive something they had expected to receive from the organization) (Robinson, 1996), and exchange unfairness (i.e., a perception of inequity when organizations fail to deliver promised outcomes) (Adam, 1965; Rousseau, 1989), as additional mediators. They were found to be closely related to subsequent individual responses after experiencing the PCB (Buttner et al., 2010; Clinton & Guest, 2014; Rousseau et al., 2018;

Robinson, 1996; Turnley & Feldman, 2000). We used the 10-item scale from Van Katwyk et al. (2000) to measure negative affect at Time 1 and Time 2. A sample item was "I feel depressed". The Cronbach's alphas were .87 for negative affect (T1) and .86 for negative affect (T2). We used the 2-item scale of Robinson (1996) to measure unmet expectation at Time 1 and Time 2. A sample item was "Were your initial expectations (what you thought you would get from your employer when you joined) met?". In our Study 3, the correlation for two items at T1 was .92 ($p < .001$) and the correlation for two items at T2 was .97 ($p < .001$). Finally, we used the 3-item scale from Clinton and Guest (2014) to measure exchange unfairness at Time 1 and Time 2. A sample item was "Considering what the organization gives me, it asks for too much in return". The Cronbach's alphas were .88 for exchange unfairness (T1) and .90 for exchange unfairness (T2).

Measurement models. We first ran a CFA with all variables measured at Time 1 (PCB, supervisor emotional support, personal relative deprivation, feelings of violation, felt obligation to the organization, negative affect, unmet expectation, exchange unfairness, and destructive voice). The hypothesized 9-factor model fit the data ($\chi^2 = 918.02$, $df = 491$; CFI = .93; TLI = .92; RMSEA = .07, 90% CI = [.07, .08]; SRMR = .06) better than alternative models (see supplementary Table S3). We also performed a CFA for all variables measured at Time 2 (supervisor emotional support, personal relative deprivation, feelings of violation, felt obligation to the organization, negative affect, unmet expectation, and exchange unfairness). The hypothesized 7-factor model fit the data ($\chi^2 = 476.33$, $df = 231$; CFI = .94; TLI = .93; RMSEA = .08, 90% CI [.07, .09]; SRMR = .05) better than alternative models.

Results

Table 5 presents the basic statistics of all variables. We examined a moderated mediation path model in Mplus (Muthén & Muthén, 2012). We used path analysis but not SEM with latent

variables to avoid estimating a large, complex model using a small sample (Cheung & Lau, 2017). In our model, in addition to our hypothesized mediator, personal relative deprivation at Time 2, we also included felt obligation to the organization, feelings of violation, negative affect, unmet expectation, and exchange unfairness (all measured at Time 2) as additional mediators to account for the alternative explanatory mechanisms. The six mediators were allowed to correlate. We controlled for each mediator at Time 1 when predicting the corresponding mediator at Time 2, and controlled for destructive voice at Time 1 when predicting destructive voice at Time 3. We used supervisor emotional support at Time 1 to predict supervisor emotional support at Time 2 to help us focus on supervisor emotional support after any PCB. We included demographic variables (gender, tenure, and education) as control variables on all six mediators at Time 2 and destructive voice at Time 3. We also included effects of supervisor emotional support at Time 2 to predict the six mediators at Time 2 and destructive voice at Time 3 to control for its direct effect on those psychological mechanisms and the outcome. Finally, we included the interaction effect of PCB at Time 1 and supervisor emotional support at Time 2 on all six mediators at Time 2, which enabled us to gauge any moderating effect of supervisor emotional support on the multiple mechanisms. The model fit the data well ($\chi 2 = 134.54$, $df = 60$; CFI = .95; TLI = .89; RMSEA = .08, 90% CI = [.06, .10]; SRMR = .04).

Table 6 presents the unstandardized estimates of this model. Results showed that PCB at Time 1 was positively related to personal relative deprivation at Time 2 ($B = .36$, S.E. = .07, $p < .001$), supporting Hypothesis 1. The personal relative deprivation at Time 2 was positively related to destructive voice at Time 3 ($B = .18$, S.E. = .08, $p = .016$), supporting Hypothesis 2. We found that the interaction term significantly predicted personal relative deprivation ($B = -.12$, S.E. = .04, $p = .005$). The simple slope analysis and the interaction plot in Figure 2b showed that the PCB had

a weaker relationship with personal relative deprivation when supervisor emotional support was higher (simple slope = .24, S.E. = .09, p = .004) than lower (simple slope = .47, S.E. = .07, p < .001). Hence, Hypothesis 3 was supported. Finally, the indirect effect between PCB and destructive voice via personal relative deprivation was stronger when supervisor emotional support was lower (95% bias-corrected bootstrapping CI = [.01, .21]) but not significant when supervisor emotional support was higher (95% bias-corrected bootstrapping CI = [−.00, .15]). Hypothesis 4 was thus supported.

We also found that the interaction term significantly predicted feelings of violation at Time 2 (B = −.13, S.E. = .03, p < .001). Specifically, PCB was significantly related to feelings of violation when supervisor emotional support was lower (simple slope = .23, S.E. = .05, p < .001) but not when supervisor emotional support was higher (simple slope = −.01, S.E. = .06, p = .939). Lastly, we estimated a moderated mediation model using the key variables only (PCB at Time 1, personal relative deprivation and supervisor emotional support at Time 2, and destructive voice at Time 3) and obtained similar results, which demonstrated the robustness of our findings.

----------Insert Tables 5 and 6 about here----------

General Discussion

Using several designs and samples, we offer strong evidence that the PCB evokes personal relative deprivation, which predicts destructive voice. Such findings were held when we controlled for different mediating mechanisms (Study 2 and Study 3), took prior levels of personal relative deprivation and destructive voice into account (Study 3), and used supervisor-rated destructive voice (Study 1 and Study 2) or self-rated destructive voice (Study 3). Moreover, we consistently found that supervisor emotional support after PCB buffered the effect of PCB on personal relative deprivation.

Theoretical Implications

The relative deprivation perspective brings a new lens to understanding PCB, which we conceptualize as a situation denoting a loss of what an employee feels entitled to. This conceptualization of PCB is different from that based on a social exchange perspective, which is concerned with the damaged social exchange relationship between employees and organizations. It also differs from that based on an affective events perspective, which treats PCB as a negative, unpleasant work event without more granular focus. Specifically, through the lens of relative deprivation, we identify personal relative deprivation as a psychological reaction to PCB. As shown in our CFA results across the three studies, personal relative deprivation was distinct from felt obligation to the organization, feelings of violation, negative affect, exchange unfairness, and unmet expectation. We also consistently observed that personal relative deprivation was the only mediator that could explain the association between PCB and destructive voice and had a full mediation effect. These findings suggest that destructive voice is particularly driven by personal relative deprivation instead of other negative feelings or psychosocial reactions.

While our results highlight the important and unique role of personal relative deprivation (compared to other mechanisms) in fully mediating the effect of PCB on destructive voice, we acknowledge that mechanisms suggested by a social exchange perspective or an affective events perspective may explain the link between PCB and other employee outcomes. For example, social exchange mechanisms may be more relevant to withdrawal behavior to "cash in" credits from the work that employees have completed (Jensen et al., 2010). On the other hand, affective mechanisms that focus on general negative emotions may be more relevant to employees' well-being (Conway & Briner, 2002). Future studies could further explore how different mechanisms may shape different outcomes in responding to PCB.

Our research also contributes to PCB research by identifying destructive voice as a behavioral outcome of PCB. Studies on PCB have primarily focused on negative behaviors, such as counterproductive work behavior and withdrawal behavior, which can harm organizational operations (Griep & Vantilborgh, 2018a, 2018b; Tomprou et al., 2015). Destructive voice serves to challenge practices and issues that have or could result in negative implications for employees or organizations (Maynes & Podsakoff, 2014) and is distinct from withdrawal behaviors because it requires employees to actively pay attention to and attend to organizational issues (Mackey et al., 2020). Destructive voice is also different from counterproductive work behavior, as it only focuses on work-related policies, practices, and procedures, whereas counterproductive work behavior can harm a broader range of targets inside or outside an organization, such as the organizational reputation, supervisors, colleagues, stakeholders, and clients. Furthermore, the prohibitive function of destructive voice (signaling issues and practices that should receive attention) cannot be achieved if employees choose to withdraw from work or engage in deviance behavior in response to PCB. In brief, instead of focusing on their tendency to withdraw from work, retaliate against the organization, or show aggressive behavior towards others at work, our research suggests that employees can seek to reveal and then influence problematic work policies, practices, and procedures, to redress their mistreatment.

Our research also advances research on destructive voice. As observed by Morrison (2014) in her review, great attention has been paid to constructive voice and promotive voice, which is offering ideas or suggestions to improve organizational functioning (Liang et al., 2012), and only a few studies have investigated destructive voice or similar constructs (Carson et al., 2018; Hoon et al., 2019). Our research uses a relative deprivation lens to identify a situation (PCB) that can lead to employee destructive voice, a psychological mechanism (personal relative deprivation), and a

boundary condition (supervisor emotional support). We believe more studies are needed to understand what drives employees' destructive voice, when it is likely to occur, and what its consequences may be.

Thirdly, our work has implications for supervisory roles in shaping employees' reactions to PCB. Previous research has reported that the quality of the relationship with a supervisor (i.e., LMX) can buffer against the detrimental effect of PCB on feelings of violation (Dulac et al., 2008). In our research, we found that supervisor emotional support not only mitigated the association between PCB and feelings of violation, but also weakened the association between PCB and personal relative deprivation. Instead of focusing on the quality of LMX, our focus on supervisor emotional support suggests specific behaviors that supervisors can adopt to help redress the negative impact of PCB on employees. As it takes time for supervisors and their subordinates to raise the quality of LMX and not everyone has the ability to achieve this (Graen & Uhl-Bien, 1995), our findings suggest that supervisor emotional support is a more direct and specific concept than LMX in deepening understanding of what supervisors can do to alleviate the negative impact of PCB.

Our assessment is also distinct from previous research that has considered the moderating effect of supervisor support and supervisor-related variables in the context of PCB (Zagenczyk et al., 2009; Lapointe et al. 2013). For example, concerning the employer-employee relationship under a social exchange perspective, Zagenczyk et al. (2009) investigated the role of supervisor emotional support in shaping employees' perceptions of their organizations (namely its support) when PCB occurred. Drawing on a conservation of resources perspective, Lapointe et al. (2013) examined how PCB shapes employees' commitment to different targets (supervisor and organization) and whether these different foci jointly influenced staff turnover and well-being.

Departing from these studies, our research focuses on a new a mechanism (i.e., relative deprivation) and a behavioral outcome of PCB (i.e., destructive voice) and contributes to the understanding of how supervisor emotional support can help employees cope with influences of PCB from a new theoretical lens (relative deprivation perspective). Together with these previous studies, the findings so far have shown that supervisors can indeed play a significant role in helping employees cope with PCB across multiple aspects that affect their perceptions, attitudes, and behaviors in reacting to PCB.

Furthermore, as Chinese culture emphasizes social relationships, emotional support (including love and care) can be an important resource in that cultural context to help individuals overcome negative events and experiences (Hui et al., 2014; Wong & Leung, 2008). Consistent with this, in Study 2, we found supervisor emotional support helps mitigate the positive impact of PCB on relative deprivation. Still, emotional support is also important in other cultural settings as we also found the same moderating effect of supervisor emotional support in Study 3 using a sample from the United States. Our findings in Study 3 further suggest that employees are unlikely to view supervisors' emotional support as tactically transactional, tokenistic, or akin to "sugar-coating". If this is the case, supervisors' emotional support should be less effective in mitigating the impact of PCB on employees' feelings of relative deprivation. Nevertheless, in Study 3, we found that after controlling for supervisor emotional support at Time 1, supervisor emotional support at Time 2 is effective in weakening the effect of PCB at Time 1 on relative deprivation at Time 2. Altogether, our findings support the importance of supervisor emotional support to help employee cope with PCB.

Practical Implications

Our research has practical implications for organizations that wish to reduce the negative influences of PCB. First of all, given the negative impact of PCB on employees' experience and behavior, organizations should focus their efforts on reducing PCB in the early stages. However, where this is unavoidable or outside of the control of the organization, it can seek to minimize employees' personal relative deprivation through different approaches, such as working to earn their understanding, providing other resources to compensate them, and encouraging supervisors to provide support to those affected.

If employees appreciate that it is not their employer's intention to fail on delivering on promise, they are less likely to attribute PCB to the organization's deliberate deception or reneging (Morrison & Robinson, 1997; Robinson & Morrison, 2000), and thus experience less relative deprivation and engage in less destructive voice. Organizations can also offer other resources or benefits, such as learning and training opportunities for career development, opportunities to change tasks and responsibilities within the organization, or alternative rewards package, to compensate for the promises undelivered, such as career promotions or salary increases. In doing so, employees who are affected by PCB may feel they are still cared for and see ways to work with their employer; this can assist them in overcoming their loss (Bolino & Turnley, 2009).

Notably, our research provides suggestions for protecting subordinates' career development by highlighting the importance of supervisor emotional support. PCB denotes the neglect of promised career-related support and other benefits for employees. After PCB has occurred for employees, their supervisors can play a key role to reduce their negative responses by offering emotional support (such as boosting their spirits when they are despondent or listening when they need to vent). Organizations should view supervisor emotional support as a critical way

to ease the negative effects and reactions arising from the mistreatment of PCB. Our findings thus suggest that this is a suitable modus operandi for managers to help staff cope with the threat of a PCB to their well-being, productivity, and future careers, especially when direct managers are unable to compensate the breached promises.

Limitations and Future Research Directions

Our research has several limitations. First, although we used time-lagged designs in all studies and repeated measurements in Study 3 to control for effects of prior measures of the moderator, mediators, and the dependent variable, our findings did not record the time when PCB occurs and cannot make a causal conclusion. Future research may use a different research design to better draw a causal conclusion. As it is practically infeasible to conduct a full randomized experiment for PCB, we suggest that a quasi-experiment design could help assess a causal link between PCB and our research variables. For example, in a quasi-experiment study, researchers can trace employees over time to detect when PCB, as an event, occurs and then compare those who experienced the event with their counterparts in their responses, such as feeling of relative deprivation and destructive voice behavior.

Second, future research could perhaps extend our findings by exploring other individual and contextual factors that may moderate the effect of PCB on personal relative deprivation. For example, as more assertive individuals tend to feel more personally victimized by relative deprivation (Kobrynowicz & Branscombe, 1997), employees higher in assertiveness may have stronger personal relative deprivation when experiencing PCB. Regarding contextual factors, observing colleagues' PCB could be a key factor in exaggerating personal relative deprivation when one experiences PCB oneself, because it could emerge from peer comparison (Davis, 1959).

Third, although we focused on destructive voice as an important behavioral response to personal relative deprivation, there could be other forms of action in response to it, in the context of PCB. For example, employees may initiate collective bargaining in concord with destructive voice, to tactically improve their situation. Additionally, in our study, we only examine the link between PCB and destructive voice from the lens of relative deprivation. To fully understand how PCB might affect employee voice behaviors, future research might usefully examine all voice behaviors, namely defensive, supportive, constructive, and destructive (Maynes & Podsakoff, 2014) simultaneously. Such studies would thus be warranted in identifying other behavioral responses as a result of personal relative deprivation, in advancing the understanding of employees' reactions to PCB via the relative deprivation lens.

Our research model could be further extended to gauge the dynamic process of relative deprivation in the PCB context. As personal relative deprivation arises from the loss of an outcome that an individual feels they ought to have had, if employees have the prospect of regaining what they deserve or their loss being compensated, their personal relative deprivation could be tempered. Conversely, they may escalate their reactions and responses to perceived unfair treatment. As we reported in Study 3 (Table 6), PCB at Time 1 significantly and positively predicted personal relative deprivation at Time 2 even controlling for the initial relative deprivation at Time 1. Further, personal relative deprivation at Time 2 significantly mediated the relationship between PCB at Time 1 and destructive voice at Time 3 even when controlling for the initial destructive voice at Time 1. This finding suggests that, at least within two months, personal relative deprivation in responding to PCB can become stronger and reinforce employees' destructive voice if supervisor emotional support does not actualize. Hence, more studies are encouraged to investigate how both employees and employers may shape the regulation of

employees' personal relative deprivation after PCB and how such regulation can in turn shape the employee-organization relationship.

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Table 1

Descriptive Statistics, Correlations and Reliabilities (Study 1)

Variable	*MEAN*	*SD*	1	2	3	4	5	6	7	8
1. Gender	.55	.50	-							
2. Work tenure	4.80	4.51	−.09	-						
3. Education	3.00	.61	.12	−.11	-					
4. Felt obligation to the organization (T1)	5.56	.86	−.06	−.11	−.10	(.89)				
5. Feelings of violation (T1)	2.15	1.32	−.08	.06	.03	−.31***	(.96)			
6. Psychological contract breach (T1)	3.44	1.48	−.06	.09	.03	−.19*	.60***	(.98)		
7. Personal relative deprivation (T2)	3.45	1.48	−.02	.08	−.09	−.17*	.46***	.64***	(.95)	
8. Destructive voice (T3)	2.07	1.43	−.10	−.04	.08	−.14	.35***	.35***	.38***	(.98)

Note. n = 168. SD is standard deviation. Internal reliabilities (alpha coefficients) for the overall constructs are given in parentheses along the diagonal.

Gender had two codes: 0 is male and 1 is female. Education has 4 codes: 1 is high school and below, 2 is for junior college or equivalent, 3 is for bachelor degree, and 4 is for master degree and above. Tenure was described in years.

*$p < .05$

**$p < .01$

***$p < .001$

Table 2

Unstandardized Estimates of the Structural Equation Modeling (Study 1)

	Personal relative deprivation (T2)	Destructive voice (T3)
Variables		
Gender	.10(.17)	−.28 (.20)
Work tenure	.00(.02)	−.03(.02)
Education	−.27(.15)	.22(.15)
Felt obligation to the organization (T1)	−.03(.12)	−.14(.14)
Feelings of violation (T1)	.13(.10)	.16(.14)
Psychological contract breach (T1)	**.58*** (.08)**	.07(.11)
Personal relative deprivation (T2)		**.25* (.11)**
R^2	.45***	.21***

Note. n = 168. Standard errors are reported in parentheses. Regression coefficients for the hypotheses were bolded.

*$p < .05$

**$p < .01$

***$p < .001$

Table 3

Descriptive Statistics, Correlations and Reliabilities (Study 2)

Variable	*MEAN*	*SD*	1	2	3	4	5	6	7	8	9
1. Gender	.46	.44	-								
2. Work tenure	4.40	4.42	.05	-							
3. Education	2.67	.60	−.16**	−.06	-						
4. PCB (T1)	1.87	.74	.04	.12*	.01	(.91)					
5. LES (T2)	3.45	.83	−.20**	−.08	.05	−.23***	(.94)				
6. Personal relative deprivation (T2)	1.87	.68	−.00	.14*	.07	.43***	−.43***	(.94)			
7. Felt obligation to the organization (T2)	3.95	.60	−.10	.11	−.12*	−.12*	.37***	−.38***	(.90)		
8. Feelings of violation (T2)	1.55	.62	−.07	−.04	.11	.30***	−.33***	.69***	−.48***	(.94)	
9. Destructive voice (T3)	1.65	.75	−.02	.12*	−.01	.16**	−.17**	.25***	−.05	.17**	(.93)

Note. n = 293. Internal reliabilities (alpha coefficients) for the overall constructs are given in parentheses along the diagonal. PCB = psychological contract breach; LES = leader emotional support.

Gender had two codes: 0 is male and 1 is female. Education has 4 codes: 1 is high school and below, 2 is for junior college or equivalent, 3 is for bachelor degree, and 4 is for master degree and above. Tenure was described in years.

*$p < .05$

**$p < .01$

***$p < .001$

Table 4

Unstandardized Estimates of the Moderated Mediation Model (Study 2)

	Personal relative deprivation (T2)	Felt obligation to the organization (T2)	Feelings of violation (T2)	Destructive voice (T3)
Variables				
Gender	−.10(.08)	−.06(.08)	−.11(.07)	−.05(.11)
Work tenure	.09(.01)	.02* (.01)	−.01(.01)	.01(.02)
Education	.09(.06)	−.15* (.06)	.09(.05)	−.04(.07)
PCB (T1)	**.35*** (.07)**	−.04(.05)	.23*** (.06)	.05(.07)
LES (T2)	−.38*** (.07)	.33*** (.07)	−.27*** (.06)	
PCB (T1) x LES (T2)	**−.27** (.08)**	.14(.08)	−.31*** (.08)	
Personal relative deprivation (T2)				**.25* (.12)**
Felt obligation to the organization (T2)				.03(.09)
Feelings of violation (T2)				.03(.12)
R^2	.42**	.23**	.35**	.09*

Note. n = 293. Standard errors are reported in parentheses. Regression coefficients for the hypotheses were bolded. PCB = psychological contract breach; LES = leader emotional support.

*$p < .05$

**$p < .01$

***$p < .001$

Table 5
Descriptive Statistics, Correlations and Reliabilities (Study 3)

Variable	*MEAN*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Time 1																						
1. Gender	.50	.50	-																			
2. Tenure	22.96	10.92	.11	-																		
3. Education	3.02	.73	.03	−.07	-																	
4. PCB	1.82	.86	.00	.05	.05	(.86)																
5. LES	3.72	1.02	.19*	.02	.05	−.39***	(.94)															
6. RD	1.76	.93	−.01	−.00	.06	.70***	−.45***	(.96)														
7. FOO	4.27	.65	.18*	.25**	.04	−.29***	.37***	−.30***	(.90)													
8. FV	1.29	.65	−.12	.12	.07	.62***	−.41***	.64***	−.26**	(.92)												
9. NA	1.89	.65	.06	−.11	.07	.26**	−.34***	.37***	−.27***	.38***	(.87)											
10. UE	2.45	1.21	−.07	−.01	−.07	.60***	−.40***	.71***	−.40***	.50***	.27***											
11. EU	2.06	1.19	.66	.04	−.02	.57***	−.28***	.60***	−.27***	.50***	.28***	.60***	(.88)									
12. DSV	1.46	.74	−.11	−.05	−.02	.27***	−.30***	.29***	−.30***	.36***	.49***	.27***	.23**	(.93)								
Time 2																						
13. LES	3.62	.93	.07	.07	.02	−.39***	.78***	−.45***	.36***	−.37***	−.41***	−.39***	−.34***	−.27***	(.91)							
14. RD	1.72	.93	.01	.00	.04	.70***	−.41***	.73***	−.27***	.61***	.35***	.62***	.60***	.28***	−.52***	(.97)						
15. FOO	4.09	.71	.15*	.20**	.11	−.33***	.33***	−.26**	.76***	−.31***	−.31***	−.38***	−.33***	−.39***	.44***	−.32***	(.87)					
16. FV	1.31	.67	−.13	−.06	−.00	.55***	−.31***	.55***	−.25**	.72***	.39***	.45***	.42***	.36***	−.41***	.73***	−.35***	(.92)				
17. NA	1.78	.67	.02	−.15	.01	.26**	−.26**	.35***	−.24**	.39***	.80***	.31***	.27***	.42***	−.40***	.43***	−.33***	.52***	(.86)			
18. UE	2.51	1.32	−.03	−.01	−.05	.59***	−.41***	.62***	−.29***	.54***	.32***	.70***	.60***	.31***	−.46***	.68***	−.38***	.49***	.41***			
19. EU	2.00	1.10	−.05	.03	.03	.57***	−.27***	.53***	−.23**	.47***	.37***	.58***	.61***	.26**	−.31***	.69***	−.27***	.54***	.45***	.65***	(.90)	
Time 3																						
20. DSV	1.43	.75	−.12	.00	−.04	.30***	−.23**	.33***	−.22**	.38***	.47***	.24**	.30***	.73***	−.24**	.41***	−.38***	.47***	.45***	.30***	.33***	(.93)

Note. $n = 170$.
Internal reliabilities (alpha coefficients) for the overall constructs are given in parentheses along the diagonal.
PCB = psychological contract breach, RD = personal relative deprivation, FOO = felt obligation to the organization, FV = feelings of violation, NA = negative affect, UE = unmet expectation, EU = exchange unfairness, LES = leader emotional support, and DSV = destructive voice. Gender had two codes: 0 is male and 1 is female. Education has 4 codes: 1 is for elementary/primary or middle/secondary school degree, 2 is community colleges/high school degree/junior colleges, 3 is for bachelor's Degree, and 4 is for master's degree and above. Tenure was described in years.
$^{*}p < .05$
$^{**}p < .01$
$^{***}p < .001$

Table 6

Unstandardized Estimates of the Moderated Mediation Path Model (Study 3)

	LES (T2)	Personal relative deprivation (T2)	Felt obligation to the organization (T2)	Feelings of violation (T2)	Negative affect (T2)	Unmet expectation (T2)	Exchange unfairness (T2)	Destructive voice (T3)
Variables								
Gender	−.16(.09)	.07(.09)	.02(.07)	−.07(.07)	−.01(.06)	.04(.14)	−.14(.13)	−.06(.08)
Work tenure	.01(.00)	−.00(.00)	.00(.00)	−.01* (.00)	−.01(.00)	.00(.01)	.00(.01)	.01(.00)
Education	−.02(.06)	−.08(.06)	.08(.05)	−.03(.05)	−.04(.04)	−.07(.09)	.01(.09)	−.01(.05)
PCB (T1)		**.36*** (.07)**	−.05(.05)	.11* (.05)	.04(.04)	.43*** (.11)	.52*** (.09)	−.06(.06)
LES (T1)	.73*** (.04)							
Personal relative deprivation (T1)		.34*** (.05)						
Felt obligation to the organization (T1)			.73*** (.06)					
Feelings of violation (T1)				.48*** (.06)				
Negative affect (T1)					.69*** (.05)			
Unmet expectation (T1)						.44*** (.07)		
Exchange unfairness (T1)							.28*** (.06)	
Destructive voice (T1)								.63*** (.06)
LES (T2)		−.19*** (.05)	.11** (.04)	−.07(.04)	−.07(.04)	−.29*** (.08)	−.09(.08)	
PCB (T1) × LES (T2)		**−.12** (.04)**	.03(.03)	−.13*** (.03)	−.01(.03)	.04(.07)	.09(.06)	
Personal relative deprivation (T2)								**.18* (.08)**
Felt obligation to the organization (T2)								−.08(.06)
Feelings of violation (T2)								.12(.09)
Negative affect (T2)								.09(.07)
Unmet expectation (T2)								−.08(.04)
Exchange unfairness (T2)								.02(.05)
R^2	.62***	.64***	.62***	.57***	.61***	.53***	.43***	.60***

Note. $n = 170$.

Standard errors are reported in parentheses. Regression coefficients for the hypotheses were bolded. PCB = psychological contract breach; LES = leader emotional support.

*$p < .05$

**$p < .01$

***$p < .001$

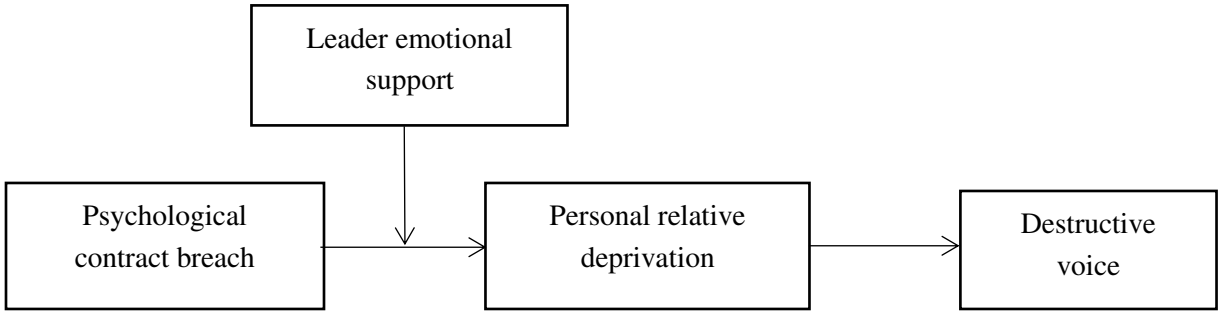


Figure 1. Theoretical model

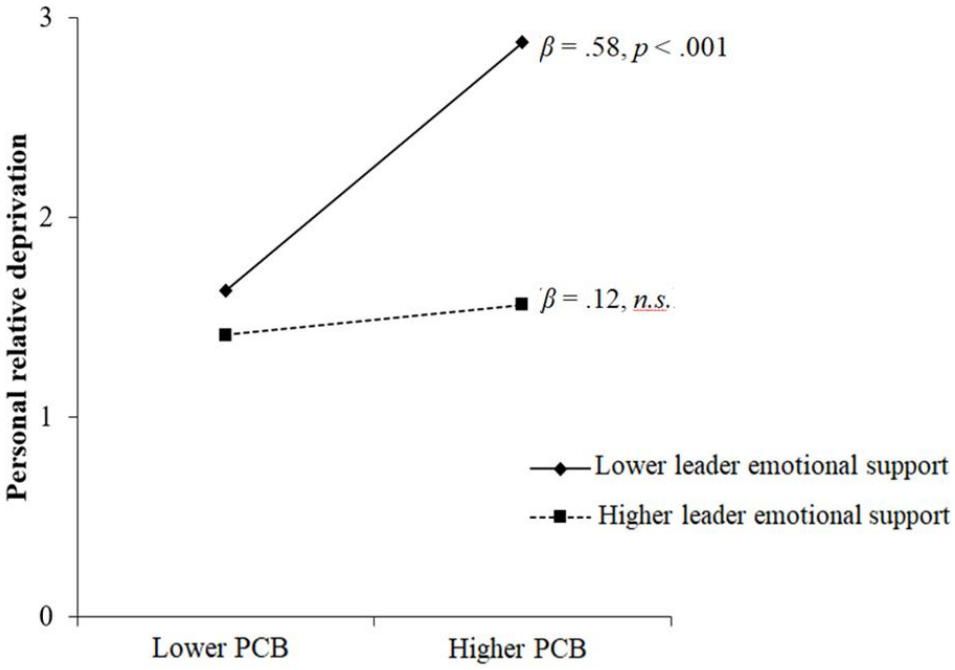
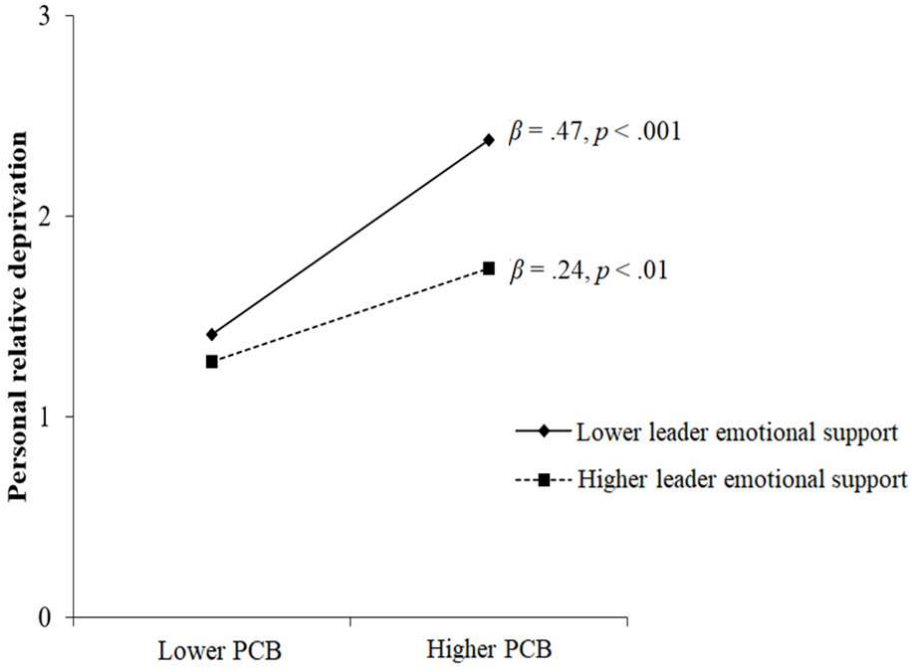


Figure 2. Interaction plots

2a. Interactive effect of psychological contract breach at Time 1 (PCB) and leader emotional support at Time 2 on the personal relative deprivation at Time 2 (Study 2)



2b. Interactive effect of psychological contract breach at Time 1 (PCB) and leader emotional support at Time 2 on personal relative deprivation at Time 2 (Study 3)