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Bridging the breach: Using positive affectivity to overcome knowledge hiding after contract breaches

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Abstract

With a basis in conservation of resources theory, this study investigates the relationship between employees' exposure to perceived contract breaches and their job performance, while also considering the mediating role of knowledge hiding and the moderating role of positive affectivity. Multisource, three-wave data from employees and their peers in Pakistani organizations reveal that breaches in the psychological contract hinder job performance, because employees respond with an unwillingness to contribute valuable knowledge to execute their job tasks. This mediating role of knowledge hiding is mitigated if employees can draw from their own positive affectivity trait. This study accordingly identifies a key factor, intentional attempts to conceal knowledge requested by other members, that can backfire and make employees suffer doubly: from unfulfilled organizational promises and from lower performance. It also reveals how this risk might be contained, that is, by encouraging employees' positive affect.

Keywords: psychological contract breach; knowledge hiding; positive affectivity; job performance

Introduction

The experience of adverse, stressful work conditions creates substantial concerns for employees, such that it may thwart the quality of their organizational functioning, their sense of self-worth, and eventually their capability to meet their job obligations (Abbas, Raja, Darr, & Bouckenooghe, 2014; Hughes & Palmer, 2007; Perko, Kinnunen, & Feldt, 2017; Pooja, De Clercq, & Belausteguigoitia, 2016). The focus of this investigation is on one notable source of such workplace adversity, that is, employees' beliefs that their employer has broken its psychological contract with them (Rayton & Yalabik, 2014; Sonnenberg, Koene, & Paauwe, 2011). Psychological contract breaches refer specifically to an employee's perception of the degree to which the organization has failed to fulfill its promises or obligations (Robinson & Rousseau, 1994). The significant frustration that employees may experience in this scenario has prompted substantial attention to this phenomenon in academia, yet its persistence and the threat that it creates for employees' daily job functioning makes it a pertinent topic that requires further investigation, particularly in terms of how to mitigate employees' negative responses (e.g., Bal, Lange, Jansen, & Velde, 2013; Costa & Neves, 2017; Garcia, Bordia, Restubog, & Caines, 2018; Henderson, Welsh, & O'Leary-Kelly, 2019).

Employees' beliefs that their organization has failed to keep its promises can be detrimental to their success, in terms of both their current job situation and future career prospects (e.g., Restubog, Bordia, & Bordia, 2011; Zhao, Wayne, Glibkowski, & Bravo, 2007). Extant research identifies various negative outcomes of perceived contract breaches, such as *lower* emotional well-being (Cassar & Buttigieg, 2015), organizational commitment (Rodwell, Ellershaw, & Flower, 2015), and citizenship behaviors (Shih & Chuang, 2013), as well as *higher* organizational cynicism (Bashir & Nasir, 2013), counterproductive work behavior (Ma et al.,

2019), and intentions to leave (Hartmann & Rutherford, 2015). Prior studies also reveal a direct negative relationship between employees' perceptions of contract breaches and their job performance (e.g., Bal, Chiaburu, & Jansen, 2010; Johnson & O'Leary-Kelly, 2003; Lester, Turnley, Bloodgood, & Bolino, 2002; Restubog, Bordia, & Tang, 2007), though this relationship also encompasses the effects of mediating mechanisms, such as perceived violation and mistrust (Zhao et al., 2007), job satisfaction (Bal et al., 2013), and leader-member exchange (Restubog et al., 2011).

To extend this research stream, we investigate an *additional*, unexplored causal factor that may underlie the escalation of perceived contract breaches into negative performance outcomes: employees' knowledge-hiding behaviors (Connelly, Zweig, Webster, & Trougakos, 2012). We propose that beliefs about broken organizational promises might diminish job performance *because* employees are not willing to share their personal expertise and insights with other organizational members. The conceptual arguments for this mediating role of knowledge hiding are anchored in conservation of resources (COR) theory (Hobfoll, 1989; Hobfoll & Shirom, 2000). A key premise of this theory is that negative work behaviors might help employees *cope* with the hardships that result from stress-inducing work situations (De Clercq, Haq, & Azeem, 2019), such as those that feature perceived contract breaches (Restubog, Zagencyk, Bordia, & Bordia, 2015). We specifically pinpoint the critical *risk* that knowledge hiding, as a behavioral response to perceived contract breaches, might boomerang for employees and undermine their performance.

In addition, we propose that the mediating role of knowledge hiding might be buffered by employees' positive affectivity—a stable level of receptivity to positive environmental stimuli and sense of positive feelings (Watson, Clark, & Tellegen, 1988)—because it makes knowledge

hiding as a response to contract breaches less *necessary*. This proposed mitigating role of positive affectivity represents an extension of prior studies that reveal buffering roles of other personal resources in helping employees overcome the hardships of broken organizational promises, including professional identification (Deng, Coyle-Shapiro, & Yang, 2018), forgiveness cognitions (Costa & Neves, 2017), reduced sensitivity to inequity (Restubog et al., 2007), a less hostile attribution style (Chiu & Peng, 2008), reappraisals of emotion regulation (Bal & Smit 2012), or traditional values (Chen, Tsui, & Zhong, 2008). What distinguishes positive affectivity is that it speaks to employees' ability to leverage their positive *emotions* to immunize themselves against the challenges that arise from stressful workplace conditions (Cardon & Patel, 2015; Gallagher & Meurs, 2015). According to COR theory, the likelihood that employees seek to cope with stress-invoking work circumstances by engaging in negative work behaviors is lower to the extent that those circumstances hurt them less, in an emotional sense (Hobfoll & Shirom, 2000). A hitherto overlooked but relevant personal resource that might lead to this outcome is employees' positive disposition (Watson et al., 1988). Together with the mediating role of knowledge hiding, we propose that employees' positive affectivity may serve as a *buffer* against the likelihood that their beliefs about broken organizational promises translate into lower job performance through such knowledge hiding.

We seek to make several contributions with this study. First, we draw from COR theory to propose and empirically demonstrate the influence of an overlooked mediator between perceived contract breaches and supervisor-rated job performance: hiding valuable knowledge from colleagues (Connelly & Zweig, 2015). In so doing, we reveal how employees' territorial tendencies to protect and maintain their knowledge resources, as a means to take revenge and vent their frustrations about unmet organizational obligations (Restubog et al., 2015), may

backfire in the form of diminished job performance. That is, concealing valuable knowledge from other members is a behavioral mechanism that may generate a negative loss spiral for employees (Hobfoll, 2001), such that they suffer doubly—from broken organizational promises and from a lower ability to meet their performance targets, because of how they have responded to this adverse situation.

Second, we specify *when* the translation of perceived contract breaches into reduced job performance, through knowledge hiding, might be less likely to occur, namely, when employees can draw from their positive affectivity. As mentioned, including this factor extends prior research that identifies the mitigating roles of other personal resources for dealing with the hardships that result from beliefs about broken organizational promises; it also complements research on the buffering roles of *contextual* resources, such as trust at the time of hiring (Robinson, 1996), mentor relationships, or supervisor support (Zagenczyk, Gibney, Kiewitz, & Restubog, 2009). By investigating the buffering role of positive affectivity, we also extend research on how this specific personal resource might diminish the hardships that arise with role overload (Gallagher & Meurs, 2015) or experienced stress (Cardon & Patel, 2015).

Third, noting calls for more research on perceived contract breaches in non-Western country contexts (e.g., Agarwal & Bhargava, 2014; Jamil, Raja, & Darr, 2013; Ma et al., 2019), this study focuses on an understudied country, Pakistan. This context is particularly interesting because of the potentially *contrasting* roles that its cultural factors might have. Pakistan is characterized by high levels of risk avoidance (Hofstede, Hofstede, & Minkov, 2010; Syed & Malik, 2014), such that employees may experience significant stress when previously made organizational promises are not kept. Yet the high power distance of Pakistani culture (Hofstede et al., 2010) implies that it might not be uncommon for organizational decision makers to fail to

keep all of their promises, as a means to exercise their power (Jahanzeb et al., 2019). At the same time, the high level of collectivism that marks Pakistan (Aycan, Schyns, Sun, Felfe, & Saher, 2013; Hofstede et al., 2010) suggests that employees' knowledge hiding, in response to broken organizational promises, may be experienced by colleagues as a violation of group harmony. Employees' propensity to conceal knowledge then might be subdued if it appears to undermine prevailing group norms. In light of these opposing explanations, it is insightful to investigate the behavioral process by which perceptions of contract breaches translate into lower job performance, as well as the role of pertinent factors such as positive affectivity.

Figure 1 summarizes the theoretical framework and its constitutive hypotheses, as detailed in the next section.

[Insert Figure 1 about here]

Theoretical background and hypotheses

In highly competitive markets, employees' effective job performance promotes organizational survival and development (Morrison & Phelps, 1999). Effective job performance implies that the employee fulfills "assigned responsibilities associated with an individual's formal employment contract" (Kickul, Lester, & Finkl, 2002, p. 477), which in turn contribute to the organization's technical core (Borman & Motowidlo, 1993), competitive advantage, and overall effectiveness. Different factors may determine employees' job performance, ranging from leaders' emotional management ability, abusive supervision (Chen, & Wang, 2017), or core self-evaluation to employees' emotional intelligence (Weinzimmer, Baumann, Gullifor, & Koubova, 2017), organizational tenure, job insecurity, job embeddedness (Greene, Mero, & Werner, 2018), and dispositional envy (De Clercq, Haq, & Azeem, 2018). Psychological contract

breaches also can shape job performance, because they lead employees to believe their employer has failed to fulfill prior arrangements (Robinson, 1996; Zhao et al., 2007).

As we mentioned previously, this study extends prior research on the negative performance consequences of such perceived contract breaches (e.g., Bal et al, 2010; Restubog et al., 2007) and specifications of factors that underpin this relationship (e.g., Bal et al., 2013; Zhao et al., 2007), by detailing a hitherto unexplored casual mechanism: employees' knowledge-hiding behavior (Connelly et al., 2012). This behavior consists of three interrelated dimensions. First, Connelly and Zweig (2015) identify *evasive hiding* as a scenario in which “the hider provides incorrect information or a misleading promise of a complete answer in the future, even though there is no intention to actually provide this” (p. 480). Second, employees who *play dumb* have no intention to help and conceal knowledge by pretending that they do not understand what the requester seeks. Third, if they engage in *rationalized hiding*, employees explain their failure to provide requested knowledge “by either suggesting [they are] unable to provide the knowledge requested or blaming another party” (Connelly & Zweig, 2015, p. 480). This study proposes that (1) exposure to psychological contract breaches reduces job performance because of employees' desire to hide their valuable knowledge resources, and (2) this process can be mitigated by employees' positive affectivity (Watson et al., 1988).

Conservation of resources (COR) theory

To guide the theoretical arguments pertaining to this possible indirect effect of perceived contract breaches on job performance through employee knowledge hiding, as well as the mitigating role of positive affectivity, this study relies on COR theory (Hobfoll, 1989, 2001). According to this theory, people strive to acquire, retain, and protect their resource bases (Hobfoll, 1989) and perceive any damage to those resource bases as threatening, such that they

undertake preemptive attempts to counteract the loss. An increasing number of studies has applied COR theory to explain employees' reactions to adverse workplace conditions, including the occurrence of psychological contract breaches (e.g., Costa & Neves, 2017; Garcia et al., 2018), yet this theory has not been applied to investigate factors that *explain* and *influence* the link between these perceptions and employees' job performance specifically. Such an application is appropriate because "resources," as defined by Hobfoll (2001, p. 341), refer broadly to any "valued entities ... that may be delineated into object, condition, personal characteristic, and energy resources." Our conceptual model captures many of these categories, directly or indirectly. A breach of organizational promises is a work condition that generates stress in employees and leads them to believe they are not respected by their employer (Garcia et al., 2018); with knowledge-hiding behavior, employees seek to withhold valuable energy resources (Connelly et al., 2012); and positive affectivity is a stable personal characteristic that fuels employees with positive energy (Gallagher & Meurs, 2015).

We specifically conceptualize employees' knowledge hiding as a means to *cope* with and vent their frustrations with the hardships that come with broken organizational promises, such that they can maintain their sense of self-worth or self-esteem, which itself is a key resource in Hobfoll's (1989) theory. Prior studies indeed pinpoint perceived contract breaches as significant threats to employees' self-esteem with respect to their organizational functioning (Gardner, Huang, Niu, Pierce, & Lee, 2015; Hughes & Palmer, 2007). The conceptualization of knowledge-hiding behavior as a coping mechanism also is consistent with research that suggests counterproductive work behaviors help employees express frustration with negative work situations (Penney, Spencer, & Fox, 2003; Sliter, Sliter, & Jex, 2012). The sense that their organization has broken previously made promises is upsetting for employees, because it creates

stress about how they are being treated by their employer (Costa & Neves, 2017; Deng et al., 2018; Garcia et al., 2018). We accordingly propose that an important reason that perceptions of broken promises may escalate into lower job performance is that employees react to this stressful situation by engaging in dysfunctional work behaviors, in the form of knowledge hiding (Connelly et al., 2012). Employees seek to express their frustration by striking back to cause harm to their employer (Bordia, Restubog, & Tang, 2008). Yet we also clarify that by hiding their knowledge, employees actually may suffer another “hit.” They already are unhappy about broken organizational promises, but their job performance also may suffer if they react to this unhappiness in ways that hinder their own ability to fulfill their job obligations.

In addition, COR theory posits that employees’ negative responses to adverse, stressful work conditions vary with their access to valuable personal resources (Hobfoll, 2001). Consistent with this logic, employees’ positive affectivity could buffer against their self-serving coping efforts to hide their knowledge in response to perceived contract breaches, which would diminish the likelihood of reduced job performance. People who tend to be cheerful and energetic, and who experience positive emotions in various situations, maintain greater access to cognitive resources that help them cope with difficult work conditions (Cacioppo, Gardner, & Berntson, 1999). If employees are equipped with positive affectivity (Watson et al., 1988), the negative effect of perceived contract breaches on their job performance through knowledge hiding similarly should be attenuated, because they sense a lower need to protect their self-esteem resources by engaging in dysfunctional work behaviors. We explicate specific arguments for these combined mediating and moderating roles of knowledge hiding and positive affectivity, respectively, in the connection between perceived contract breaches and job performance.

Mediating role of knowledge hiding

In COR theory, the nature of employees' work behaviors is informed by their desire to protect their current resource reservoirs and avoid further resource depletion when they confront stressful work conditions (Hobfoll, 1989, 2001). Previous research has applied this logic to conceptualize dysfunctional work activities as behavioral reactions, through which employees can vent their frustrations with adverse organizational situations and thereby maintain a sense of self-worth (Hobfoll, Halbesleben, Neveu, & Westman, 2018). For example, employees who experience time-related work stress are more likely to engage in deviant work behaviors, to cope with the threat of self-depreciating thoughts in this adverse situation (De Clercq et al., 2019). Similarly, negative emotions that arise with beliefs about broken organizational promises might translate into enhanced knowledge hiding, because this counterproductive behavior serves as a coping mechanism that employees can use to take revenge and release the associated negative energy (Bordia et al., 2008; Restubog et al., 2015).

In particular, employees who are convinced that previously made obligations have not been met may relate this unfavorable situation to the limited care that their organization and its members exhibit toward their professional and personal well-being (Cassar & Buttigieg, 2015; Restubog et al., 2015). These convictions undermine their self-esteem, because employees question their organizational status and standing (Gardner et al., 2015; Hughes & Palmer, 2007). In response, they try to avoid further resource losses and maintain their sense of self-worth by expressing the frustrations that come with these convictions, through behaviors that harm their organization (Connelly & Zweig, 2015). Finally, employees who invest significant personal energy in their daily work but encounter an organization that appears to fail to fulfill its promises may respond with knowledge-hiding behavior, in an effort to maintain *control* over proprietary

knowledge (Peng, 2013) and to restore or improve their influence and power within the organization (Burkhardt & Brass, 1990). Taken together, these arguments suggest the following:

Hypothesis 1: Employees' perception of psychological contract breaches relates positively to their knowledge hiding.

We also hypothesize that such knowledge-hiding behaviors could backfire for employees and hinder their job performance. In particular, other members likely assess an employee's purposeful efforts to conceal valuable knowledge as detrimental for organizational effectiveness (Connelly et al., 2012; Peng, 2013), so the employee may prompt negative performance evaluations. In a more indirect route, knowledge hiding may diminish job performance by establishing self-fulfilling prophecies in peer interactions. When employees withhold crucial knowledge from their peers, these peers may retaliate and take revenge by doing the same (Jones, 2009; Skarlicki & Folger, 1997), and the corresponding negative reinforcement cycle may increase employees' social isolation, leading to reduced ability to meet their performance targets. That is, when employees hide knowledge from their peers, these peers might respond in kind, so the employees' ability to draw from others' insights into how to complete their work tasks is hampered (Singh, 2019).

This negative reinforcement dynamic is consistent with COR theory, and particularly its notion of negative resource loss spirals (Hobfoll, 2001), whereby the loss of one resource (e.g., knowledge) may lead to the loss of another resource (e.g., job-related rewards). Knowledge hiding might diminish job performance by initiating negative resource spirals, in which employees and their colleagues continue to withhold knowledge resources from one another (Hobfoll & Shirom, 2000). This vicious cycle then might reinforce the depletion of valuable knowledge resources by initiating a reciprocal distrust loop (Černe, Nerstad, Dysvik, & Škerlavaj, 2014). Notably, COR theory posits that this negative spiral may pertain to knowledge

deficiencies but also that a lack of access to peer knowledge, and thus poorer job performance, may cause other resources to become depleted too, such as employees' access to financial resources or social connections (Hobfoll & Shirom, 2000). Ultimately, the loss of these varied resources may backfire for employees, leaving them unable to meet formal job requirements.

Hypothesis 2: Employees' knowledge hiding relates negatively to job performance.

The combination of these hypotheses suggests a mediating role of knowledge-hiding behavior: Employees' perceptions of contract breaches reduce their job performance *because* of their knowledge-hiding behaviors. Employees who perceive that the organization has broken its promises may underperform, due to their attempts to cope with this stressful situation by withholding valuable knowledge from other organizational members (Hobfoll, 2001). Previous research similarly shows a mediating role of knowledge hiding in the relationships of perceptions of organizational politics (Malik et al., 2019) and abusive supervision (Jahanzeb et al., 2019) with employee creativity. We extend such research by proposing that the experience of a perceived contract breach is dysfunctional and hurts job performance because it discourages employees from openly sharing knowledge with their colleagues. Therefore,

Hypothesis 3: Employees' knowledge hiding mediates the relationship between their perception of psychological contract breaches and job performance.

Moderating role of positive affectivity

According to COR theory, the role of knowledge hiding in helping employees cope with the hardships of perceived contract breaches is lower to the extent that they can draw on personal resources that render this coping mechanism less necessary (Hobfoll & Shirom, 2000). We similarly propose that employees' desire to release their frustration with broken organizational promises, in the form of knowledge hiding, should be lower when their personality fuels their positive emotions over time and across situations (Cardon & Patel, 2005). That is, positive

affectivity may protect employees against the stress invoked by broken organizational promises, such that they experience a lower *need* to respond with a purposeful concealing of valuable knowledge as a way to preserve their self-esteem resources in this unfavorable situation (Gardner et al., 2015). In particular, positive affectivity may increase employees' propensity to acknowledge that their organization may not be able to keep *all* of its promises, due to challenges in the external competitive environment for example (Robinson & Rousseau, 1994). Then they may be more forgiving or accepting of the negative consequences of perceived contract breaches and adapt more readily (Chao, Cheung, & Wu, 2011; Costa & Neves, 2017). That is, positive affectivity should enable employees to deal better with the psychological distress and emotional exhaustion that arise with perceived contract breaches (Costa & Neves, 2017; Garcia et al., 2018), so concealing knowledge from peers to protect their sense of self-worth becomes less necessary. Conversely, employees with low positive affectivity cannot protect themselves as well against the hardships associated with perceived contract breaches, because they are more negatively influenced by stressful, dissatisfactory work conditions (Gallagher & Meurs, 2015). Accordingly, these employees likely respond to their perceptions of contract breaches by attempting intentionally to conceal knowledge from others and protect themselves (Connelly et al., 2012).

Hypothesis 4: The positive relationship between employees' perception of psychological contract breaches and knowledge hiding is moderated by their positive affectivity, such that the relationship is weaker at higher levels of positive affectivity.

These arguments also imply the presence of moderated mediation (Preacher, Rucker, & Hayes, 2007), such that employees' positive affectivity serves as a contingent factor of the indirect effect of employees' perceptions of contract breaches on their job performance, through their knowledge-hiding behavior. If employees can draw from abundant positive personal

energy, informed by their positive affectivity, they may be more forgiving, and their intentional attempts to conceal knowledge become less important for explaining why beliefs about broken organizational promises escalate into diminished job performance. Consistent with COR theory (Hobfoll & Shirom, 2000), the desire to vent their frustration with broken organizational promises by hiding valuable knowledge resources thus is a less important explanation of reduced job performance when employees have a positive personality that enables them to cope effectively with the adverse work situation. Conversely, employees with limited positive affectivity are less protected against the hardships that stem from perceived contract breaches, and they accordingly experience a stronger need to express their disappointment with this unfavorable situation (Bordia et al. 2008), making them more prone to turn to knowledge-hiding behaviors, which ultimately undermine their own performance.

Hypothesis 5: The indirect relationship between employees' perception of contract breaches and their job performance through their knowledge hiding is moderated by their positive affectivity, such that this indirect relationship is weaker among employees with higher positive affectivity.

Method

We collected time-lagged (i.e., three-wave) and multisource (i.e., self-reports and peer reports) data from full-time and contract employees from five Pakistani-based organizations that operate in various subdomains in the service sector, including telecom, banking, education, and nonprofit. These organizations were selected from among the professional and personal contacts of one coauthor. This non-probability, convenience sampling technique means that the selected organizations might not be representative of the entire Pakistani economy, but the inclusion of multiple organizations ensures a broad selection, which enhances external validity. Moreover, possible participants *within* organizations were randomly selected, so they likely are representative of the employee profiles of their respective organizations. This approach is similar

to other studies undertaken in the Pakistani context (e.g., Abbas et al., 2014; De Clercq et al., 2019). The three-wave data collection procedure incorporated a time lag of eight weeks between each wave. A cover letter detailed the significance of the research and assured participants complete confidentiality, to reduce their evaluation apprehension or social desirability concerns.

At time 1, we contacted 530 lower-, middle-, and top-level employees to collect responses about perceived contract breaches and positive affectivity. We received 490 completed questionnaires. Two months later, we contacted these 490 employees again to gather knowledge-hiding responses and received 450 questionnaires, which led to 372 useful responses.¹ After a gap of another two months, we gathered peer-reported evaluations of employee job performance, which helps avoid common method bias. Each peer rated a maximum of two respondents, to avoid data nesting, and had worked with the focal respondents for at least six months, to ensure the peer was knowledgeable about the effectiveness of the other person's organizational functioning. The three-wave data collected from multiple sources minimize concerns about common method bias and social desirability (Podsakoff, Mackenzie, & Podsakoff, 2012).

The analyses are based on 372 completed sets of responses, which represents a final response rate of 70%. Approximately 70% of the respondents are men, and the average age is 35 years ($SD = 6.51$). The participants are lower-level (25%), middle-level (52%), and top-level (23%) employees who work for diverse service departments. With regard to tenure, 9% of the employees had been working for their current organization for 6–12 months, 25% for 1–4 years, 25% for 4–7 years, 17% for 7–12 years, and 24% for more than 13 years. All respondents had earned either an undergraduate qualification (34%) or a graduate degree (66%).

¹ This reduction resulted from our inability to match the responses between time 1 and time 2 for some respondents. A post hoc analysis confirms that no significant differences arise in the values of the focal constructs when comparing surveys for which the time 1 responses could be matched with the time 2 responses against those for which such a match was not possible.

Measures

Established scales served to collect the data relevant to the study variables. The questionnaire was in English, which is the medium of instruction for all schools and universities in Pakistan, as well as the official language of business organizations. Unless otherwise noted, the scales used seven-point Likert anchors that ranged from 1 (“strongly disagree”) to 7 (“strongly agree”).

Psychological contract breach. We measured employees’ perceptions of broken organizational promises with Robinson and Morrison’s (2000) five-item reverse-coded scale, with a 5-point Likert-type answer format (1 = “strongly disagree” to 5 = “strongly agree”). Sample items include: “Almost all the promises made by my employer during recruitment have been kept so far” and “I feel that my employer has come through in fulfilling the promises made to me when I was hired” (Cronbach’s alpha = .78).

Positive affectivity. The Positive Affectivity Schedule (PAS) subscale of the Positive and Negative Affect Schedule, developed by Watson and colleagues (1988), measures employees’ positive affectivity. The PAS comprises 10 items, asking about the extent to which participants generally feel in certain ways, including being “interested,” “excited,” “enthusiastic,” “proud,” or “inspired” (Cronbach’s alpha = .70).

Knowledge hiding. We assessed knowledge hiding with 12 items (Connelly et al., 2012). Respondents indicated their agreement with several statements about how they respond when coworkers ask them for information, capturing their propensities to engage in evasive hiding, playing dumb, and rationalized hiding. To avoid social desirability biases, we emphasized that it is normal that participants would vary in their responses and that it is not always possible or desirable for employees to share knowledge openly with colleagues. The items were preceded

with the phrase “When co-workers ask for information,” and they included statements such as “I sometimes offer them some other information instead of what they really want” (evasive hiding), “I sometimes pretend that I do not know the information” (playing dumb), and “I sometimes explain that I would like to tell them, but I am not supposed to” (rationalized hiding). A confirmatory factor analysis confirmed that the three dimensions loaded on a second-order knowledge-hiding behavior construct. The paths between this second-order factor and each first-order factor were strongly significant ($p < .001$), and the second-order model generated good fit (confirmatory fit index [CFI] = .97; Tucker-Lewis index [TLI] = .94; root mean square error of approximation [RMSEA] = .03; standardized root mean square residual [SRMR] = .02). The Cronbach’s alpha values for each of the three dimensions was acceptable (= .74 for evasive hiding, .77 for playing dumb, .88 for rationalized hiding). The internal consistency of the 12-item measure also was high (Cronbach’s alpha = .90), and the operationalization of knowledge-hiding behavior as an overarching construct was consistent with previous empirical studies (e.g., Fong, Men, Luo, & Jia, 2018; Peng, Wang, & Chen, 2018), as well as with the notion that employees engage in knowledge hiding or not, irrespective of the specific form it takes (Černe et al., 2014).

Job performance. We used Williams and Anderson’s (1991) seven-item measure of peer-reported in-role job performance, to avoid concerns about common method bias. Sample items included “This employee fulfills responsibilities specified in job description,” “This employee meets formal performance requirements of the job,” and “This employee adequately completes assigned duties” (Cronbach’s alpha = .91).

Control variables. The analyses included three control variables: gender (1 = female), organizational tenure (in years), and whether the organization was public (1 = public).

Results

We assessed the convergent validity of the four focal constructs by estimating a four-factor model with confirmatory factor analysis. The fit of this model was good: $\chi^2_{(459)} = 3.454$, CFI = .85, TLI = .82, RMSEA = .07; SRMR = .08. Evidence of convergent validity comes from the strongly significant factor loadings for each of the items on their respective constructs ($p < .001$; Gerbing & Anderson, 1988). Although we used temporal separations and multiple data sources to measure the different constructs, we also performed a series of confirmatory factor analyses to establish discriminant validity, with a particular focus on the constructs that we gathered from the same sources. Table 1 compares a constrained one-factor model with an unconstrained two-factor model with respect to the independent (perceived contract breach) and mediator (knowledge hiding) variables, as well as a constrained one-factor with an unconstrained three-factor model with respect to the independent, mediator, and moderator (i.e., positive affectivity) variables. The unconstrained multifactor models provided better fit than their single-factor counterparts, and the fit indices of these unconstrained models indicated good model fit (Kline, 2005). Table 1 also compares one-, two-, and three-factor models for the three knowledge-hiding dimensions. The best fit resulted from the one-factor model, which aligns with the excellent fit of the corresponding second-factor model; the treatment of knowledge hiding as a general concept thus appears justified by our sample.²

[Insert Table 1 about here]

The correlations and descriptive statistics are in Table 2. Perceived contract breach correlated positively with knowledge hiding ($r = .278, p < .01$) and negatively with job performance ($r = -.254, p < .01$). Knowledge hiding ($r = -.443, p < .01$) and positive affectivity ($r = -.120, p < .05$) were both negatively correlated with job performance. The negative correlation

² In line with previous research on knowledge-hiding behavior (Semerci, 2019) and recommendations about structural equation modeling (Lattin, Carroll, & Green, 2003), we model this behavior as a first-order multi-item construct for the comparison of different structural equation models, as reported subsequently in Table 3.

between positive affectivity and job performance is somewhat surprising; it might be explained by the *peer*-reported assessment of job performance, such that peers may assign negative connotations (e.g., over-optimism, lack of professionalism) to employees who are always filled with positive energy. The lack of a significant correlation between positive affectivity and knowledge hiding ($r = -.012, ns$) is in line with our premise that this personal resource has an *indirect* role in influencing knowledge hiding, by buffering the effect of perceived contract breaches. We found no significant correlation between organizational tenure and job performance ($r = -.072, ns$), perhaps because the greater expertise that comes with longer tenures may increase job performance up to some point, after which a much weaker effect arises, due to the complacency exhibited by employees who feel certain about their jobs. In their meta-analysis, Ng and Feldman (2000) find a weak association between organizational tenure and job performance, such that tenure most strongly predicts performance between 3 and 6 years, whereas it is unrelated to performance after 14 years.

[Insert Table 2 about here]

We used structural equation modeling (SEM) to compare the fit of different models with respect to the presence of mediation. First, we estimated a full mediation model, which included an indirect path between perceived contract breach and employees' job performance through knowledge hiding. Second, we estimated a partial mediation model that included direct and indirect paths between perceived contract breach and job performance. Third, we estimated a direct effects model that included direct paths from perceived contract breach and knowledge hiding to job performance. The χ^2 values in Table 3 indicate that the fit of the direct effects model is poor compared with that of the full and partial mediation models. Further, the full mediation version is the preferred model; it is more parsimonious than the partial mediation

model, and its fit is *not* significantly worse ($\Delta\chi^2(1) = .84, ns$; Lattin et al., 2003). Moreover, the partial model generates a non-significant path between perceived contract breach and job performance ($\beta = .058, ns$, not reported in Table 3).

[Insert Table 3 about here]

Table 4 shows the SEM results for the full mediation model. Hypothesis 1 predicted that employees who believe that their organization has broken its promises are more likely to conceal valuable knowledge from other organizational members. In support of this prediction, the results revealed a positive relationship between perceived contract breaches and knowledge hiding ($\beta = .533, p < .001$). Furthermore, Hypothesis 2 stated that higher levels of knowledge hiding prevent employees from meeting their performance requirements, as evidenced in the negative relationship between knowledge hiding and job performance ($\beta = -.551, p < .001$). In support of the mediating effect of knowledge hiding (Hypothesis 3), we note the excellent fit of the full mediation model in Table 3 ($\chi^2_{(217)} = 473.86, \chi^2/df = 2.18, CFI = .95, TLI = .94, RMSEA = .06, SRMR = .08$). To confirm the presence of mediation by knowledge hiding, we applied Preacher and Hayes's (2004) bootstrapping method, using the Process macro (Hayes, 2013). This test generates confidence intervals (CI) for indirect effects, so it minimizes the potential statistical power problems that might result from asymmetric and other non-normal sampling distributions (MacKinnon, Lockwood, & Williams, 2004). The CI for the indirect effect of perceived contract breaches on job performance through knowledge hiding did not include 0 ([-.160, -.067], Table 4), in support of the presence of mediation.

[Insert Table 4 about here]

To test Hypothesis 4, we assessed the perceived contract breach \times positive affectivity interaction term for predicting knowledge hiding. In line with recommendations for how to

model interaction terms in path models (De Clercq, Dimov, & Thongpapanl, 2013; Ping, 1996), we calculated a composite value for each construct, then calculated the interaction term as the product of the constitutive values, and finally modeled the measurement error for each construct according to the loadings and error variances generated by the aforementioned four-factor measurement model. By relying on composite values to assess moderating effects, we addressed the nonlinearity challenges that arise from estimating all possible products of items that load on their respective constructs (De Clercq et al., 2013; Lattin et al., 2003). Following established practice (Jaccard & Wan, 1996), we calculated the interaction term as the product of the constitutive mean-centered constructs. Table 5 confirms the positive relationship between perceived contract breaches and knowledge hiding ($\beta = .250, p < .001$), as well as the negative relationship between knowledge hiding and job performance ($\beta = -.408, p < .001$). The sign of the path from perceived contract breach \times positive affectivity to knowledge hiding also is negative and significant ($\beta = -.291, p < .001$). Thus, positive affectivity buffered the translation of perceived contract breaches into knowledge hiding. The bootstrapping results for the conditional direct effect of perceived contract breaches on knowledge hiding at different levels of the moderator indicated diminishing effect sizes, such as when we compare a low ($\beta = .443$) versus high ($\beta = .057$) level of the moderator; the corresponding CIs similarly did not include 0 ([.320, .567]) or included 0 ([-.059, .173]), respectively (Table 5).

[Insert Table 5 about here]

Finally, to assess the moderated mediation effect in Hypothesis 5, we calculated conditional indirect effects at low and high values of the moderator (Yzerbyt, Muller, Batailler, & Judd, 2018). The conditional indirect effect of perceived contract breaches on job performance through knowledge hiding diminished in size, according to a comparison of the moderator at low

($\beta = -.204$) versus high ($\beta = -.026$) levels; the corresponding CIs did not include 0 ([-.264, -.146]) or included zero ([-.088, .042]), respectively. As a more direct check of the presence of moderated mediation, we assessed the index of moderated mediation and its corresponding CI (Hayes, 2015). The index produced a value of .133, and its CI did not include 0 ([.079, .198]). Overall, the results indicated that positive affectivity buffers against the negative indirect effect of perceived contract breaches on job performance, through knowledge hiding, in support of Hypothesis 5 and this study's overall framework.

Discussion

This study contributes to extant research by investigating how employees' perceptions of contract breaches inform their job performance, with a particular focus on unspecified factors that influence this process. Despite some studies of how beliefs about broken organizational promises might hamper employees' abilities to meet their job duties (e.g., Bal et al., 2010; Johnson & O'Leary-Kelly, 2003; Lester et al., 2002; Restubog et al., 2007), relatively little research has explicitly investigated *why* employees' perceptions of contract breaches might hinder job performance, let alone the critical, specific role of knowledge-hiding behavior. To fill these gaps, this study has drawn from COR theory (Hobfoll, 1989, 2001) to propose that (1) the likelihood of lower job performance in response to perceived contract breaches arises because employees tend to conceal knowledge, and (2) their positive affectivity mitigates this process. The empirical results largely confirm these theoretical predictions.

The mediating role of knowledge hiding, as found herein and captured by Hypotheses 1–3, offers the novel insight that employees who perceive psychological contract breaches are less likely to meet their performance duties, because they conceal knowledge from others. These victims of broken organizational promises may take their adverse work situation as a sign of

limited organizational support for their occupational and emotional well-being (Cassar & Buttigieg, 2015; Zhao et al., 2007), and consistent with the logic of COR theory (De Clercq et al., 2019; Hobfoll et al., 2018), they vent their associated frustration by causing harm to organizational members by depriving them of valuable knowledge sources. In a related vein, these employees may become cynical about the limited appreciation that they receive for their daily, dedicated work efforts (Johnson & O’Leary-Kelly, 2003), such that they believe that their negative behavioral reactions to this stressful situation are justified. Yet the findings also reveal that when the victims of broken organizational promises engage in knowledge-hiding behaviors, these reactions actually can blow up in their face by leading to diminished job performance.

From a positive angle, we find support for the argument that harmful performance consequences can be deflected if employees avoid knowledge-hiding behaviors, even in the presence of perceived contract breaches, by leveraging their positive affectivity or general disposition to experience positive emotions (Hypothesis 4). In line with the logic of COR theory, employees equipped with positive, energy-enhancing personal resources are less likely to feel upset by the experience of stressful organizational conditions, because they can accept and adapt to these conditions (Abbas et al., 2014; Costa & Neves, 2017). In our study context, the desire to release negative energy about unmet organizational obligations, in the form of knowledge hiding, becomes subdued. Another explanation for the buffering role of positive affectivity could be that employees who experience positive moods in various situations might feel more intrinsically motivated to search for and find effective solutions to adverse work situations, such as when their employer fails to meet its promised obligations (Robinson, 1996). This outcome then might reduce their desire to hide knowledge from coworkers who ask for help (Connelly et al., 2012).

The buffering effect of positive affectivity on the relationship between perceived psychological contract breaches and employees' knowledge hiding is particularly insightful when considered in combination with the mediating role of knowledge-hiding behavior (Hypothesis 5). As the moderated mediation analysis reveals (Preacher et al., 2007), the strength of the indirect effect of perceived psychological contract breaches on job performance through knowledge hiding depends on employees' positive disposition. That is, the frustration that stems from a perceived psychological contract breach translates less powerfully into reduced job performance, through knowledge concealment, when employees are better equipped with positive affectivity (Watson et al., 1988).

Taken together, these findings establish a more comprehensive understanding of the factors that inform the connection between perceived contract breaches and reduced job performance. We extend extant research by detailing how (1) knowledge hiding functions as a critical link between this source of workplace adversity and diminished performance and (2) employees' positive affectivity helps contain this process. The findings thus expand previous investigations of the *direct* beneficial effects of positive affectivity on work outcomes, such as reduced job tension (Zellars, Perrewé, Hochwarter, & Anderson, 2006), burnout (Thoresen, Kaplan, Barsky, Warren, & De Chermont, 2003), and quitting intentions (Shaw et al., 2000), as well as enhanced work–family enrichment (Tement & Korunka, 2013), task performance (Bouckenoghe, Raja, & Butt, 2013), and creativity (Rego, Sousa, Marques, & Cunha, 2014). In particular, the benefits of positive affectivity that we identify in this study are *indirect*, in the sense that employees who have the disposition to experience positive emotional states are better positioned to cope with unfavorable work situations, including perceived psychological contract breaches. Ultimately, we offer critical insight into how employees can *avoid* being hurt twice—

that is, by broken organizational promises and by negative performance outcomes that stem from their own counterproductive responses—by leveraging their own reservoirs of positive energy.

Limitations and future research

This study is not without limitations, which suggest further research avenues. First, we focus on knowledge hiding as an important explanatory mechanism that underpins the harmful effect of perceived contract breaches on job performance, in response to calls for explicit investigations of why this type of workplace adversity might generate negative work outcomes for employees (Bal et al., 2013; Costa & Neves, 2017; Jahanzeb et al., 2019). Other mediators remain unexplored though, including personal factors such as core self-evaluations and emotional intelligence (Kim, Karatepe, & Lee, 2018), as well as behavioral factors such as overt workplace deviance (e.g., damaging or stealing company property; Skarlicki & Folger, 1997) or purposeful withholding of creative ideas (Amabile, 1996). In a similar vein, we did not directly assess the specific mechanisms that underlie the translation of employees' beliefs about broken organizational promises into knowledge hiding, such as the stress that they experience when receiving limited respect for their work efforts or the associated depletion of their self-esteem resources, which fuel their desire to unleash their frustration on other organizational members. These mechanisms are consistent with the established framework of COR theory (Hobfoll et al., 2018), but future studies could explicitly measure them. In addition to assessing these mechanisms, continued research could explore the role of other proven reactions to perceived contract breaches for predicting knowledge hiding, such as lower organizational commitment (Rodwell et al., 2015), higher organizational cynicism (Bashir & Nasir, 2013), or emotional exhaustion (Costa & Neves, 2017).

Second, our investigation of positive affectivity as a focal contingency factor that mitigates the indirect relationship between perceived psychological breaches and job performance might be extended by considerations of other personal characteristics. In addition to the many factors that have been studied previously (see the Introduction), other elements, such as a passion for work (Vallerand, 2008) or positive reciprocity beliefs (Zou, Tian, & Liu, 2015), might buffer against the risk that perceptions of psychological contract breaches transform into knowledge-hiding behavior and reduced job performance. Future research endeavors could compare the relative *potency* of these different buffers, including positivity affectivity, for mitigating negative behavioral responses to perceived contract breaches, as well as investigate whether they complement or substitute for each other in this process.

Third, we selected the studied organizations non-randomly, using contacts of one of the researchers with different service organizations in Pakistan, though the selection of participants within these organizations was random. The single-country focus also might constitute a sort of limitation, in addition to offering an extension into a rarely studied national context. As we highlighted in the Introduction, the opposing roles of specific characteristics of Pakistani culture—including high uncertainty avoidance that may boost negative responses to beliefs about broken organizational promises, and collectivism that could subdue such responses (Hofstede et al., 2010)—make it a useful context for evaluating the proposed conceptual framework. The empirical support we find for our research hypotheses suggests that the first dynamic may supersede the second, subduing effect. Further, our conceptual arguments are general and not country-specific, so we anticipate that the *strength* but not the nature of the hypothesized relationships might vary across different country settings. It would be useful to undertake cross-country comparisons of the prominence of perceived psychological contract breaches for

inducing knowledge hiding and diminished job performance, as well as the potency of various underlying moderators in this process, in cultural contexts other than Pakistan. Such contrasts could reveal how different cultural factors influence the relative importance of the focal variables.

Practical implications

This study offers several important practical implications. Perceptions of psychological contract breaches—which may include broken promises about financial compensation, long-term job security, sufficient responsibility, or training and career development (Robinson, 1996)—create negative energy among employees and undermine their job performance, so organizations must monitor potential sources of employees' beliefs about their psychological contracts. They should invest in clear, realistic communications and encourage employees to participate in the organization (Vander Elst, Baillien, De Cuyper, & De Witte, 2010). But organizations also need to resolve sensitive, breach-related matters directly, such as dissatisfaction with promotions, rewards, job content, or career development. Such actions can help reinforce employees' sense of control while also encouraging them to regard their work situation as less unfair.

In addition to this general recommendation to reduce perceptions of psychological contract breaches, this study is particularly relevant for organizations that are unlikely to eliminate such breaches completely from their employee ranks (Bal, Chiaburu, & Jansen, 2010). Employees who tend to be cheerful and energetic in different situations are in a better position to deal with perceptions of a psychological contract breach (Barsade & Gibson, 2007), so this positive affectivity represents a critical psychological capacity that an organization can leverage to mitigate knowledge-hiding behavior and diminished job performance when it has no choice but to break some promises. Organizations that can count on the positive affectivity of their

employees in turn can better protect themselves from a tendency among employees to deliberately hide knowledge, so the associated job performance damages get thwarted. The recruitment and retention of employees who score high on positive affectivity can be extremely beneficial for organizations whose employees sometimes perceive psychological contract breaches (Yavas, Karatepe, & Babakus, 2013), as well as for the employees themselves, who can avoid the job performance damages that would result from their inability to deal with breaches. Beyond the need to hire and retain such employees, organizations might investigate ways to enhance levels of happiness among their employees (Conyers & Wilson, 2015). For example, employees are more likely to experience positive energy and happiness in the workplace if their organizations use protocols that ask participants to write, on a regular basis, about past experiences or events that have made them feel grateful (Watkins, Uhder, & Pichinevskiy, 2015).

Conclusion

With this study, we have sought to extend previous research on perceived psychological contract breaches by investigating the effect of employees' exposure to this adverse work condition on their job performance, as well as the role that their knowledge-hiding behavior and positive affectivity play in this process. Intentionally concealing knowledge from coworkers emerges as an important reason that beliefs about broken organizational promises escalate into reduced performance outcomes, but the strength of this explanatory mechanism decreases when employees exhibit positive affectivity. We hope this study serves as a catalyst for further research on how organizations can avoid the negative performance consequences of different adverse work conditions.

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Figure 1. Conceptual model

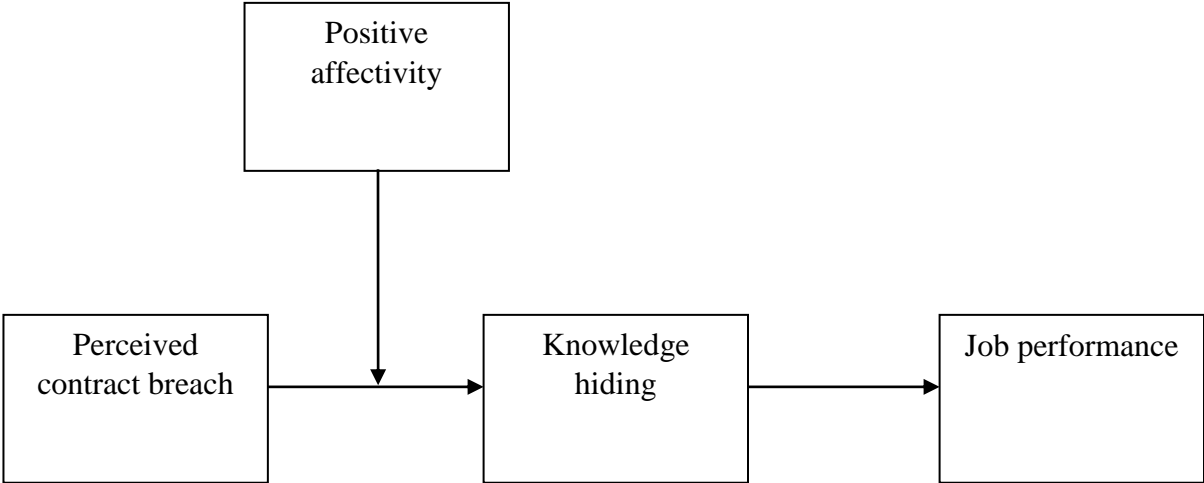


Table 1: Comparison of measurement models

	χ^2	df	χ^2/df	CFI	TLI	RMSEA	SRMR
<i>Independent and mediator variables</i>							
1 factor (PCB, KH combined)	785.05	91	8.63	.81	.72	.14	.14
2 factors (PCB, KH separately)	506.80	90	5.63	.89	.83	.11	.10
<i>Self-reported variables (independent, mediator, and moderator)</i>							
1 factor (PCB, PA, KH combined)	2,179.94	135	16.15	.32	.23	.20	.14
3 factors (PCB, PA, KH separately)	1,359.92	132	10.30	.59	.53	.16	.14
<i>Subdimensions of mediator variable</i>							
1 factor (EH, PD, RH combined)	41.27	31	1.33	.97	.94	.03	.02
2 factors (EH, PD combined, RH separately)	575.90	53	10.87	.80	.75	.16	.14
3 factors (EH, PD, RH combined)	342.23	39	8.78	.88	.80	.15	.10

Notes: n = 372; PCB = perceived contract breach; KH = knowledge hiding; PA = positive affectivity; EH = evasive knowledge hiding; PD = playing dumb; RH = rationalized hiding; CFI = confirmatory fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual.

Table 2. Correlation table and descriptive statistics

	1	2	3	4	5	6	7
1. Perceived contract breach							
2. Positive affectivity	.209**						
3. Knowledge hiding	.278**	-.012					
4. Job performance	-.254**	-.120*	-.443**				
5. Gender	.045	.021	-.061	-.025			
6. Organizational tenure	-.012	.054	.012	-.072	-.056		
7. Public organization	-.577**	.075	.160**	.086	-.127*	.149**	
Mean	3.762	3.479	3.544	3.493	.288	5.958	.454
Standard deviation	1.120	.752	.949	1.081	.453	4.316	.499

Notes: n = 372. * $p < .05$; ** $p < .01$.

Table 3: Comparison of alternative structural equation models

	χ^2	df	χ^2/df	CFI	TLI	RMSEA	SRMR
Full mediation model	473.86	217	2.18	.95	.94	.06	.08
Partial mediation model	473.02	216	2.19	.95	.94	.06	.08
Direct effects model	550.59	217	2.54	.94	.92	.06	.12

Notes: n = 372. CFI = confirmatory fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean square residual.

Table 4: Assessment of the full mediation model

	Paths	Estimate	Standard error		
H1	Perceived contract breach → Knowledge hiding	.533***	.080		
H2	Knowledge hiding → Job performance	-.551***	.234		
Bootstrap results for indirect effect of PCB on JP through KH (bias corrected confidence interval method)					
	Paths	Effect	SE	LL 95% CI	UL 95% CI
H3	Perceived contract breach → Knowledge hiding → Job performance	-.112	.024	-.160	-.067

Notes: n = 372; PCB = perceived contract breach; KH = knowledge hiding; JP = job performance; SE = standard error; CI = confidence interval; LL = lower limit; UL = upper limit.
*** $p < .001$.

Table 5: Assessment of moderation and moderated mediation effects

Knowledge hiding				
	β	SE	LLCI	ULCI
PCB	.250***	.042	.168	.332
PA	-.068	.071	-.208	.071
PA x PCB	-.291***	.067	-.422	-.161
Gender	-.054	.047	-.131	.021
Organizational tenure	-.074*	.044	-.135	-.008
Public organization	-.553***	.055	-.621	-.483
Job performance				
	β	SE	LLCI	ULCI
Knowledge hiding	-.408***	.054	-.496	-.319
Gender	-.035	.046	-.111	.043
Organizational tenure	-.095*	.046	-.177	-.005
Public organization	-.163	.047***	-.242	-.08
Bootstrap results for conditional direct effect of PCB on KH (bias corrected confidence interval method)				
Moderator: PA	β	SE	LL 95% CI	UL 95% CI
-.66	.443	.063	.320	.567
.00	.250	.042	.168	.332
+.66	.057	.059	-.059	.173
Bootstrap results for conditional indirect effect of PCB on JP through KH (bias corrected confidence interval method)				
Moderator: PA	β	SE	LL 95% CI	UL 95% CI
-.66	-.204	.031	-.264	-.146
.00	-.115	.023	-.162	-.073
+.66	-.026	.033	-.088	.042

Notes: n = 372; PCB = perceived contract breach; PA = positive affectivity; KH = knowledge hiding; JP = job performance; SE = standard error; CI = confidence interval; LL = lower limit; UL = upper limit. * $p < .05$; ** $p < .01$; *** $p < .001$.