A Stress Model of Psychological Contract Violation among Ethnic Minority Employees

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Keywords: Psychological contract, ethnic discrimination, silence, stress appraisal, coping
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Abstract

Objectives: Integrating the transactional theory of stress and coping and research on discrimination perception/attribution, we propose a stress model of psychological contract (PC) violation among ethnic minority employees. We argue that ethnic minority employees tend to appraise PC violation as a threat and attribute it to personal ethnic discrimination (as well as low organizational trustworthiness), which in turn leads ethnic minority employees to engage in fear-driven silence as a form of emotion-based withdrawal coping.

Methods: We conducted two survey studies (Studies 1 and 2), an experimental study (Study 3), and a supplementary meta-analysis of the three studies.

Results: We found support for our model. Ethnic minority employees’ perception of personal ethnic discrimination, rather than their perception of low organizational trustworthiness, translated PC violation to fear-driven silence. Our result patterns remained the same when we controlled for neuroticism and social desirability.

Conclusions: By delineating ethnic minorities’ appraisal/attribution of and coping with PC violation, the current research advances the literatures on both PC and ethnic discrimination.

Keywords

Psychological contract, ethnic discrimination, silence, stress appraisal, coping
The U.S. workforce has become more ethnically diverse over the past few decades, and this trend will continue for the foreseeable future (Alba & Barbosa, 2016). Currently, ethnic minorities represent one-third of the U.S. labor force (Bureau of Labor Statistics, 2015). Ethnic diversity is important to organizations (Herring, 2009) as ethnically diverse companies tend to outperform relatively homogenous ones (Hunt, Layton, & Prince, 2015). However, many ethnic minorities (defined as non-Whites in the U.S.; Kearney, Draper, & Baron, 2005) face personal discrimination at work (e.g., Vega, 2015), which is discrimination directed at ethnic minorities as individual members of their ethnic minority group rather than at their ethnic minority group as a whole (Taylor, Wright, & Lalonde, 1990). Ethnic minority employees may be overtly discriminated against in the form of not receiving equal job treatment or opportunities, or subtly discriminated against in social settings (Schneider, Hitlan, & Radhakirshnan, 2000; Triana & Garcia, 2009). Such unfair treatments tend to convey to ethnic minorities that they are devalued.

When feeling devalued, ethnic minority employees may choose silence (Bowen & Blackmon, 2003), defined as “withhold[ing] their opinions and concerns about organizational problems” (Morrison & Milliken, 2000, p. 707; Pinder & Harlos, 2001). Even when they opt to speak up about perceived discrimination, they will likely be penalized with worse performance ratings (Hekman, Johnson, Foo, & Yang, 2017). Thus, ethnic minorities are often compelled to choose silence out of fear. Fear-driven silence (i.e., silence driven by fear of negative consequences Kish-Gephart, Detert, Treviño, & Edmondson, 2009) is a common stress response among minority members. Yet in this increasingly dynamic and complex business environment, employees’ silence can “kill” organizational learning, change, and innovation (Detert & Treviño, 2010; Morrison & Milliken, 2000; Perlow & Williams, 2003).
It is important to better understand potential sources of perceived personal ethnic discrimination in the workplace and its effect on ethnic minorities’ fear-driven silence. However, much research has treated perceived ethnic discrimination as an exogenous variable (e.g., Kong, 2016; Schmitt, Branscombe, Postmes, & Garcia, 2014; Triana, Garcia, & Collela, 2010), leaving us with an under-developed understanding of what may cause perceptions of personal ethnic discrimination among minority employees. In addressing this issue, we focus on a prevalent and psychologically impactful negative encounter in the workplace—psychological contract (PC) violation, which refers to an employee’s affective reaction to the organization’s intentional reneging on promised obligations to the employee (Morrison & Robinson, 1997). PC violation differs from PC breach, which refers to an employee’s cognitive assessment of the organization’s intentional or unintentional failure to meet one or more obligations promised for the employee’s contributions (Morrison & Robinson, 1997). PC breach (a perceived act) precedes PC violation (affective reactions ensuing from causal attribution). PC violation is widespread in organizations (Robinson & Rousseau, 1994) and may be particularly so among ethnic minority employees (Blancero, DelCampo, & Marron, 2007).

Importantly, ethnic minority employees may react in unique ways (as compared to White employees) when experiencing PC violation. On one hand, both ethnic minority employees and White employees are likely to attribute PC violation, partially, to low organizational trustworthiness (Dulac, Coyle-Shapiro, Henderson, & Wayne, 2008). On the other hand, unlike their White counterparts, ethnic minority employees frequently examine the fit between their ethnic self and work environment (Chrobot-Mason & Thomas, 2002) and possess strong sensitivity to cues indicating discrimination (Major, Quinton, & McCoy, 2002). Therefore, ethnic minority employees may also attribute PC violation to personal ethnic discrimination (Blancero
et al., 2007), which is a psychological experience that ethnic minority employees are much more likely to have (Sanchez & Brock, 1996; Schneider et al., 2000) than White employees.

We integrate Lazarus and Folkman’s (1984) transactional theory of stress and coping, which inherently involves causal attributions (Perrewé & Zellars, 1999), and research on discrimination perception/attribution (Major et al., 2002) to explain ethnic minorities’ appraisal/attribution of and coping with PC violation. We argue that beyond the attribution of PC violation to low organizational trustworthiness, ethnic minority employees may also attribute PC violation to personal ethnic discrimination, and that these two attributions can have differential relationships with ethnic minority employees’ fear-driven silence, which is conceptualized as an emotion-focused withdrawal coping response within Lazarus and Folkman’s (1984) framework.¹

The present research first contributes to ethnic discrimination research by explaining both antecedents and consequences of perceived ethnic discrimination in organizations (Barclay, 1982; Goldman, Gutek, Stein, & Lewis, 2006). We not only integrate a stress theory and discrimination perception/attribution research to provide a comprehensive framework for this issue, but also demonstrate the under-investigated yet important linkages that PC violation and fear-driven silence have with perceived personal ethnic discrimination among ethnic minority employees. The current research also advances the PC literature. First, it addresses an important issue in PC research—ethnic minorities’ unique psychological and behavioral responses to PC violation (Blancero, Johnson, & Lakshman, 1996), and in doing so, also answers multiple calls

¹ Notably, just like research on LGBTQIA (e.g., Aranda et al., 2015; Sarno, Mohr, Jackson, & Fassinger, 2015) and elderly populations (e.g., Utsey, Payne, Jackson, & Jones, 2002), it is important to examine the population of ethnic minorities in and of itself (e.g., Branscombe, Schmitt, & Harvey, 1999; James, Lovato, & Khoo, 1994), without comparing them with the White population. That said, we do not intend to minimize White employees’ stressful reactions to PC violation or claim that ethnic minority employees would have worse experience than their White counterparts.
for the use of alternative theoretical frameworks, other than social exchange theory, in explaining
the implications of PC violation (Coyle-Shapiro & Parzefall, 2008; Taylor & Tekleab, 2004;
Tomprou, Rousseau, & Hansen, 2015). Second, the consequences of PC violation have received
relatively little research attention (Coyle-Shapiro & Parzefall, 2008), and the present research
advances this line of inquiry by establishing the indirect implication of PC violation for fear-
driven silence via perceived personal ethnic discrimination.2

Causal Attributions of PC Violation among Ethnic Minority Employees

PCs are employees’ “beliefs about the reciprocal obligations between them and their
organization,” which serve as “the foundation of employment relationships” (Morrison &
Robinson, 1997, p. 226; Rousseau, 1989). Yet oftentimes, promised obligations are not fulfilled,
creating within employees the cognition that their organization has not met one or more
obligations, known as PC breach. That is, PC breach occurs when an employee detects an
organization’s failure to meet one or more obligations within an employee’s PC in a manner
commensurate with the employee’s contributions (Morrison & Robinson, 1997; Robinson &
Rousseau, 1994). PC breach is so common that it is considered “not the exception but the norm”
(Robinson & Rousseau, 1994, p. 245). Employees may consider PC breach to be the result of
either their organizations’ intentional (vs. accidental) reneging or external factors beyond
organizational control (Morrison & Robinson, 1997; Robinson & Morrison, 2000).

If employees believe that organizations intentionally breach their PCs, employees will
have negative affective responses, known as PC violation. PC breach, as a cognitive construct
that does not involve an employee’s causal attribution of contract non-fulfillment to the

2 Notably, several studies (e.g., Si, Wei, & Li, 2008; Turnley & Feldman, 1999) found that PC
violation was related to employee voice behaviors. However, silence is not the absence of voice
and is conceptually distinguishable from voice (see Van Dyne, Ang, & Botero, 2003; Whiteside
& Barclay, 2013 for detailed discussion).
organization, is a necessary, but not sufficient, condition for the development of PC violation, which is an affective construct that involves an employee’s causal attribution of contract non-fulfillment to the organization.

PC violation is detrimental to organizational effectiveness, as it reduces employees’ job satisfaction, organizational commitment, and loyalty behaviors and increase employees’ neglect behaviors, turnover intentions, and actual turnover (Dulac et al., 2008; Tekleab, Takeuchi, & Taylor, 2005; Turnley & Feldman, 1999). While ethnic minority employees who experience PC violation clearly blame their organizations for intentional (vs. accidental) reneging, they are likely to continue making sense of why PC violation occurs and what implications PC violation has for their welfare. We use Lazarus and Folkman’s (1984) transactional theory of stress and coping to explain this causal attribution process.

Folkman, Lazarus, and colleagues (Folkman et al., 1986; Lazarus & Folkman, 1984) conceptualized stress as a relational construct that occurs when an individual appraises a given transaction with his or her environment as about to tax or exceed his or her personal resources and thus endanger his or her well-being. There are two sequential processes proposed by the transactional theory of stress: appraisal and coping, also known as judgment and management (Dewe, 1991). Appraisal refers to a sense of personal significance, or that something is at stake to an individual, or a level of awareness about a deviation from normal functioning in the individual’s experience (Dewe, 1991; Folkman, 1982; Park & De Cotiis, 1983). As Park and Folkman (1997) noted, the personal nature of appraisal “helps explain why a given event…may be stressful to one person and not so to another” (p. 122). In the appraisal process, the individual evaluates whether the stress encounter is personally significant (e.g., is the stressful encounter harmful to personal well-being; Lazarus & Folkman, 1984). Individuals tend to quickly make
sense of an event without deliberation based on prior knowledge of and beliefs about certain conditions and their consequences for personal well-being (Park & Folkman, 1997). PC violation, by definition, is harmful to individuals’ well-being because it represents willful mistreatment by a valued relationship partner, namely their organizations (Tomprou et al., 2015). Thus, ethnic minority employees should appraise PC violation as a threat to their personal welfare and thus engage in negative attributions (Perrewé & Zellars, 1999).

We argue that ethnic minorities are likely to attribute PC violation (by their organizations) to personal ethnic discrimination (within their organizations) (Major et al., 2002). Allport (1954/1979) noted that “vigilance and hypersensitiveness are ego defenses of the minority group” (p. 144). Ethnic minority employees, who have lower perceived status than their White counterparts (Leslie, 2017), are likely to develop adaptive vigilance and become suspicious of or hypersensitive to minimal cues indicative of prejudice and discrimination (Major et al., 2002). In other words, they are inclined to adopt a zero-miss signal detection strategy in screening their environment for cues indicating ethnic discrimination (Feldman-Barrett & Swim, 1998; Major & O’Brien, 2005; Major et al., 2002).

According to Major and Dover (2016), PC violation may possess the qualities, such as status differences and intentional harm (Swim et al., 2003), that may positively influence attributions to personal discrimination. PC violation fits the prototype of an intentional (vs. accidental) and harmful encounter. An encounter wherein the perpetrator brings harm to the victim or intentionally singles out the victim as the target of prejudice is more likely to be perceived as personal discrimination (Major & Dover, 2016). PC violation is, by definition, a reaction to the organization’s intentional (rather than accidental) reneging on an employee’s PC, which causes harm to the employee; thus, PC violation is likely to be attributed by ethnic
minority employees to personal ethnic discrimination. Additionally, PC violation is associated with anger, which generally conveys unfairness (Gibson & Callister, 2010), tends to be misattributed (Younger & Doob, 1978), and is most likely to result from attributions of intentional, controllable organizational action (Perrewé & Zellars, 1999). Ethnic minority employees’ angry reactions to PC violation are likely to make them view themselves as victims of unfair treatment and thus attribute their anger to personal ethnic discrimination (Major & Dover, 2016; Sechrist, Swim, & Mark, 2003). Taken together, the above arguments lead us to propose the following hypothesis.

_Hypothesis 1: PC violation is positively related to perceived personal ethnic discrimination._

Ethnic minority employees may also attribute PC violation to a low level of organizational trustworthiness (i.e., flawed character and malevolent motives of their organization; Dulac et al. 2008). PC violation conveys that an organization has intentionally reneged on promised obligations (Morrison & Robinson, 1997; Robinson & Morrison, 2000). Such intentional action shapes employees’ negative assessment of their organizations’ trustworthiness (Gillespie & Dietz, 2009; Robinson, 1996)—specifically, low credibility and integrity (unfairness, dishonesty, and behavioral inconsistency) and low benevolence (lack of care about their personal welfare). In addition, ethnic minorities’ felt anger associated with PC violation can negatively affect their trust perceptions (Dunn & Schweitzer, 2005). Based on the above arguments, we therefore propose the following hypothesis.

_Hypothesis 2: PC violation is negatively related to perceived organizational trustworthiness._
Notably, although we propose Hypothesis 2, we are primarily interested in the ethnically-relevant implication (Sanchez & Brock, 1996) of PC violation for perceived personal ethnic discrimination among ethnic minority employees. Both White and ethnic minority employees would perceive low organizational trustworthiness after experiencing PC violation, but only ethnic minority employees are expected to perceive personal ethnic discrimination. Therefore, we focus on perceived personal ethnic discrimination (ethnically relevant) while controlling for perceived organizational trustworthiness (non-ethnically relevant) as a concurrent mechanism. In this way, we can test our hypotheses against the social-exchange-based mechanism traditionally used in PC research.

**Fear-Driven Silence as Emotion-Focused Withdrawal Coping**

After completing causal attributions, individuals engage in secondary appraisal, where they evaluate what, if anything, they can do to mitigate/prevent harm or to improve the prospects for benefit. This is also known as coping, which refers to “[a] person’s cognitive [and/or] behavioral efforts to manage (reduce, minimize, master, or tolerate) the internal and external demands of the person-environment transaction that is appraised as taxing or exceeding the person’s resources” (Folkman et al., 1986b, p. 572). In general, individuals can remove or circumvent the source of their stress (problem-focused coping) or regulate their negative emotions evoked by stress (emotion-focused coping). Although both forms of coping can occur simultaneously in the same context, the former is more likely to occur when the stressful situation is controllable or when individuals believe that they can do something constructive about the cause of stress, whereas the latter occurs when the stressful situation is uncontrollable or when individuals believe that they simply have to endure the stressful situation (Lazarus & Folkman, 1984; Scheier, Weintraub, & Carver, 1986).
Perceived personal ethnic discrimination evokes negative emotions such as fear (Kaiser & Miller, 2001) or even paranoia (Kong, 2016). Such fear is driven by the worry of being perceived as a troublemaker or experiencing retaliation for speaking up about the experience (Kaiser & Miller, 2001). As a systemic problem (Gelfand, Nishii, Raver, & Schneider, 2005), personal ethnic discrimination cannot be effectively addressed by a single person. Therefore, ethnic minority employees are likely to engage in emotion-focused coping to alleviate the negative emotions evoked by perceived personal ethnic discrimination.

We focus on emotion-focused withdrawal coping, because individuals who are devalued and discriminated against are inclined to protect themselves from further discrimination (Baumeister, DeWall, Ciarocco, & Twenge, 2005; DeWall & Baumeister, 2006). We argue that fear-driven silence, as a form of withdrawal behavior, is one viable and common means of emotion-focused coping, as withdrawal behaviors generally are effective in mitigating negative emotions associated with stress (e.g., Krischer, Penney, & Hunter, 2010). Fear-driven silence is initiated after employees consider viable alternatives and yet decide to remain silent due to their fear of negative consequences such as negative labeling (e.g., troublemaker) and retaliation (Kish-Gephart et al., 2009; Pinder & Harlos, 2001; Whiteside & Barclay, 2013), and it helps individuals alleviate negative emotions associated with perceived personal ethnic discrimination.

Hypothesis 3: Perceived personal ethnic discrimination mediates the relationship between PC violation and fear-driven silence.

However, perceiving low organizational trustworthiness may not necessarily lead to fear-driven silence (Dedahanov & Rhee, 2015). Employees who perceive low organizational trustworthiness tend to believe that their contributions will not be rewarded in ways that were promised, introducing a sense of uncertainty and associated motivation to withdraw their work
effort (Colquitt, Scott, & LePine, 2007; Mayer & Gavin, 2005; Robinson, 1996). However, such motivation may not necessarily be associated with fear. Rather, it is more strongly associated with lack of confidence in the positive consequences of their action (Lewicki, McAllister, & Bies, 1998) and with protection of personal resources (Hobfoll, 1989). Besides the argument that perceived organizational trustworthiness may have a null relationship with fear-driven silence, these two factors may have a positive or negative relationship. When perceiving organizational untrustworthiness, employees may speak up about this organizational problem. As it is not associated with diversity or discrimination (cf. Hekman et al., 2017), they do not need to worry about receiving performance-rating penalties after speaking up. Alternatively, employees who perceive organizational untrustworthiness may opt to be silent as they face a high level of uncertainty and may focus on self-protection (Mayer & Gavin, 2005). Considering a possible null, positive, or negative relationship between perceived organizational trustworthiness and fear-driven silence, we raise the following research question to explore the mediating effect of perceived organizational trustworthiness.

*Research Question 1: Does perceived organizational trustworthiness mediate the relationship between PC violation and fear-driven silence?*

Figure 1 presents our conceptual model for testing.

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Insert Figure 1 about here
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**Overview of Studies**

We conducted two survey studies (Studies 1 and 2) and one experimental study (Study 3) using different samples of ethnic minority employees. We recruited participants via online panels (Studies 1 & 2 – StudyResponse; Study 3 – MTurk), which in general provide nationally representative samples (Buhrmester, Kwang, & Gosling, 2011; e.g., Kong, 2016; Liang et al.,
Online panel data collected from people working in various organizations and various industries would not constrain the variance of perceived personal ethnic discrimination (as data collected from employees of a single organization might) and were less likely to have untruthful responses (due to concerns about anonymity or confidentiality). Additionally, ethnic minority employees recruited via online panels participated voluntarily and anonymously and thus faced zero pressure from us.

In Studies 1 (Hispanic Americans) and 2 (Asian Americans), we conducted two-wave survey (rather than scenario-based) studies. Because the methods of the two studies somewhat differed, we did not combine the samples. In Study 3 (scenario-based experimental study), we manipulated PC violation (vs. fulfillment), which enabled us to establish the causal direction from PC violation to perceived personal ethnic discrimination and perceived organizational trustworthiness. In addition, we included other groups of U.S. ethnic minorities in addition to Asian and Hispanic Americans to increase the generalizability of our findings. Finally, we pooled the data of our three studies together and conducted a supplementary meta-analysis.

Study 1

Method

Participants and procedure. Eligible Latino/Hispanic American employees participated in this anonymous two-wave online study. At Time 1, 83 participants completed the first questionnaire. After about three weeks, 77 (93%) of these respondents completed a second questionnaire at Time 2. We sought to reduce common method bias by separating measures temporally, but used a relatively short time lapse to avoid losing many participants at Time 2 (particularly given that we did not expect to have a large sample size at Time 1). We excluded one participant who indicated that she had changed her organization and supervisor by Time 2.
Thus, the final sample comprised 76 participants (24% female), with an average age of 37.08 years ($SD = 7.91$). All of them had at least some college education and almost all of them (99%) had full-time jobs. On average, they had lived in the U.S. for 28.86 years ($SD = 11.77$).

Measures. All the items were rated on a five-point scale from 1 (strongly disagree) to 5 (strongly agree) unless indicated otherwise. At Time 1, participants indicated their PC violation ($\alpha = .89$) using Robinson and Morrison’s (2000) four items (e.g., “I feel betrayed by my organization”). Participants indicated perceived organizational trustworthiness ($\alpha = .75$) using Robinson’s (1996) four positively worded items (e.g., “I believe my employer has high integrity”) and perceived personal ethnic discrimination ($\alpha = .86$) using Triana and Garcia’s (2009) five self-referential items (e.g., “At work I am treated poorly because of my racial/ethnic group”). Finally, they reported age, gender, and organizational tenure. At Time 2, participants responded to the three items of fear-driven silence ($\alpha = .78$) developed by Knoll and van Dick (2013) (e.g., “I remain silent at work because of fear of negative consequences”).

Previous research found that neuroticism could not drive the findings of interest in perceived discrimination contexts. Nevertheless, in order to alleviate the omitted variable concern (e.g., Harrell, Hall, & Taliaferro, 2003; Kong, 2016; Masten, Telzer, & Eisenberger, 2011), we measured neuroticism ($\alpha = .74$) at Time 2. Specifically, participants responded to Saucier’s (1994) eight mini-markers of neuroticism on a seven-point scale from 1 (not at all characteristic of me) to 7 (extremely characteristic of me). In addition, in order to address the social desirability concern, we measured participants’ social desirability at Time 2 using Strahan and Gerbasi’s (1972) ten true-false items.

Results
**Measurement model.** We performed confirmatory factor analysis (CFA) in LISREL 8.80 to distinguish among the four key variables—PC violation, perceived personal ethnic discrimination, perceived organizational trustworthiness, and fear-driven silence. Given the small ratio of the sample size to the number of items, and following previous research (e.g., Grant, Berg, & Cable, 2014), we used item parceling (Hall, Snell, Foust, 1999; Little, Cunningham, Shahar, & Widaman, 2002), which could help address the problems associated with coarsely categorized or non-normally distributed item-level data (Bandalos, 2002). As expected, all the indicators loaded onto their respective latent variables. All four variables except for fear-driven silence (three items) had two parcels, respectively (Hall et al., 1999). The four-factor model ($\chi^2 = 38.74$, $df = 21$, $CFI = .95$, $RMSEA = .098$, $SRMR = .078$) fit the data better than any of the three-factor models ($\Delta\chi^2$s $\geq 20.47$, $dfs = 3$, $ps < .001$, $\DeltaCFIs \geq .05$) (see Table 1). Therefore, the four variables were distinct from one another.

**Hypothesis testing.** Table 2 presents the descriptive statistics and correlations. We tested our hypotheses using hierarchical regression analysis (see Tables 3 and 4). Following previous research on PC violation (e.g., Turnley & Feldman, 1999, 2000), we included age, gender, and organizational tenure as control variables. Considering the non-normality of perceived personal ethnic discrimination and fear-driven silence as well as the small sample size, we performed bootstrapping with 1,000 samples on the regression coefficients. Bootstrapping is very useful for studies with skewed sampling distributions (Preacher & Selig, 2012) and/or small or moderate sample sizes (Davison & Hinkley, 1997; Preacher & Selig, 2012). We used a bias-corrected accelerated $p$ value to determine the coefficients' significance. Although we could transform the multiple non-normally distributed variables, it would make the interpretation of results difficult.
As Table 3 shows, PC violation was positively related to perceived personal ethnic discrimination and negatively related to perceived organizational trustworthiness. Thus, Hypotheses 1 and 2 were supported. As Table 4 shows, perceived personal ethnic discrimination was positively related to fear-driven silence, whereas perceived organizational trustworthiness was not significantly related to fear-driven silence. A mediation test using PROCESS (Hayes, 2013), coupled with a 5,000-replication bootstrapping, indicated that, with age, gender, and organizational tenure controlled for, perceived personal ethnic discrimination mediated the relationship between PC violation and fear-driven silence (indirect effect = .09, bootstrap SE = .05, CI95% [.01, .20]), thus supporting Hypothesis 3, whereas perceived organizational trustworthiness did not (indirect effect = -.05, bootstrap SE = .05, CI95% [-.17, .05]). Notably, according to Zhao, Lynch, and Chen (2010), establishing a significant direct relationship between the predictor (PC violation) and the outcome (fear-based silence) was unnecessary to demonstrate the mediating effect of perceived personal ethnic discrimination. We did robustness checks with neuroticism and social desirability controlled for (see Table 3, Models 2a and 2b and Table 4, Model 4). The result patterns remained the same.

Study 2

Method

Participants and procedure. Employed Asian American individuals participated in this online study. Out of 135 participants who completed a questionnaire at Time 1, 126 (82%) completed another questionnaire at Time 2 (about a month later). We excluded nine participants who indicated that they had changed their organization/supervisor by Time 2 and another participant who did not respond to most of the questions. Thus, the final sample comprised 116 participants (49% female), with an average age of 34.33 years ($SD = 6.90$). About 99% of them
had at least some college education and 96% had full-time jobs. On average, they had lived in the U.S. for 23.59 years (SD = 11.29).

**Measures.** At Time 1, participants indicated PC violation (α = .92) and perceived personal ethnic discrimination (α = .85), using the same items and rating scales as in Study 1. Participants reported their age, gender, and organizational tenure as control variables. At Time 2, participants indicated perceived organizational trustworthiness (α = .87) and fear-driven silence (α = .86) using the same items and Likert scale as in Study 1. We measured perceived organizational trustworthiness at a different time point than perceived personal ethnic discrimination in order to procedurally reduce common method variance.

**Results**

**Measurement model.** First, we performed CFA in LISREL 8.80, using the same item parceling method as in Study 1, to distinguish among the four key variables—PC violation, perceived personal ethnic discrimination, perceived organizational trustworthiness, and fear-driven silence. The four-factor model (χ² = 41.30, df = 21, CFI = .97, RMSEA = .089, SRMR = .053) fit the data better than any of the three-factor models (Δχ²s ≥ 86.80, dfs = 3, ps < .001, ΔCFIs ≥ .11) (see Table 1). Therefore, we concluded that the four variables were distinguishable from one another.

**Hypothesis testing.** Table 2 presents the descriptive statistics and correlations. Again, we tested our hypotheses using hierarchical regression analysis, and performed bootstrapping with 1,000 samples on the regression coefficients. As in Study 1, we used a bias-corrected accelerated p value to determine the coefficients’ significance.

As Table 5 shows, PC violation was positively related to perceived personal ethnic discrimination and negatively related to perceived organizational trustworthiness, thus
supporting Hypotheses 1 and 2 again. As Table 6 shows, perceived personal ethnic discrimination was positively related to fear-driven silence, whereas perceived organizational trustworthiness was not significantly related to fear-driven silence. A mediation test using PROCESS (Hayes, 2013), coupled with a 5,000-replication bootstrapping, indicated that, with age, gender, and organizational tenure controlled for, perceived personal ethnic discrimination mediated the relationship between PC violation and fear-driven silence (indirect effect = .38, bootstrap SE = .08, CI95% [.24, .56]), thus supporting Hypothesis 3 again, whereas perceived organizational trustworthiness had no significant mediating effect (indirect effect = .09, bootstrap SE = .06, CI95% [-.02, .21]).

Study 3

Method

Participants. A total of 106 U.S. ethnic minority employees (61% female) participated in this anonymous online study. Their average age was 33.89 years (SD = 10.77) and average work tenure 10.66 years (SD = 10.12). Twenty-six percent of them identified themselves as Asian, 38% Black/African descent, 14% Hispanic/Latino, and the remaining 22% other ethnic minority groups. About 94% of them had at least some college education and 73% had full-time jobs.

Procedure. Upon consent, participants were randomly assigned into one of the two conditions (PC violation vs. fulfillment) and read a corresponding hypothetical scenario about PC violation or fulfillment (see Appendix 1). In the scenario, participants worked as a business consultant in a medium size firm XYZ and were promised during the hiring that they would receive a promotion if they had excellent performance and made significant contributions to the firm. In the PC violation condition, participants did not receive the promotion as promised but several other people at their level and with equal performance as theirs had recently been
promoted. Thus, the firm intentionally violated participants’ PC. In the PC fulfillment condition, participants received the promotion as promised, but this did not seem like anything special as several other people at their level and with equal performance as theirs had been promoted as well. After reading the scenario, participants indicated PC violation (manipulation check), perceived personal ethnic discrimination, perceived organizational trustworthiness, and fear-driven silence. As in Study 1, we also measured neuroticism and social desirability.

**Measures.** The items and rating scales of PC violation ($\alpha = .92$) and perceived personal ethnic discrimination ($\alpha = .92$) were identical to those used in Studies 1 and 2. Also using the same items as in Studies 1 and 2, participants reported perceived organizational trustworthiness ($\alpha = .92$) on a five-point scale from 1 (*strongly disagree*) to 5 (*strongly agree*), and fear-driven silence ($\alpha = .93$) on a five-point scale from 1 (*does not apply to me at all*) to 5 (*does apply to me entirely*). Participants responded to Saucier’s (1994) eight mini-markers of neuroticism ($\alpha = .82$) on a seven-point scale from 1 (*not at all characteristic of me*) to 7 (*extremely characteristic of me*), and indicated their social desirability by providing true/false responses to Strahan and Gerbasi’s (1972) ten items.

**Results**

**Measurement model.** We performed CFA in LISREL 8.80 to distinguish among the four key variables—PC violation, perceived personal ethnic discrimination, perceived organizational trustworthiness, and fear-driven silence. The four-factor model ($\chi^2 = 118.40$, $df = 84$, $CFI = .99$, $RMSEA = .06$, $SRMR = .04$) fit the data better than any of the three-factor models ($\Delta \chi^2 s \geq 176.56$, $dfs = 3$, $ps < .001$, $ACFIs \geq .06$) (see Table 7), indicating that these four variables were distinct from one another.
**Hypothesis testing.** Table 8 presents the descriptive statistics and correlations. First, participants in the PC violation condition reported a higher level of PC violation ($n = 51$, $M = 3.80$, $SD = .79$) than those in the PC fulfillment condition ($n = 55$, $M = 2.84$, $SD = 1.08$; $t(98.69) = 5.27$, $p < .001$; $d = 1.01$). Therefore, our manipulation was effective. Second, participants in the PC violation condition reported a lower level of perceived organizational trustworthiness ($M = 2.45$, $SD = .98$) than those in the PC fulfillment condition ($M = 3.35$, $SD = .75$; $t(104) = -5.36$, $p < .001$; $d = 1.03$), but a higher level of perceived personal ethnic discrimination ($M = 3.25$, $SD = .98$) than those in the PC fulfillment condition ($M = 2.72$, $SD = 1.00$; $t(104) = 2.74$, $p < .01$; $d = .54$). Therefore, both Hypotheses 1 and 2 were supported again.

A mediation test using PROCESS (Hayes, 2013), coupled with a 5,000-replication bootstrapping, indicated that perceived personal ethnic discrimination mediated the relationship between PC violation (vs. fulfillment) and fear-driven silence (indirect effect = .32, bootstrap $SE = .13$, $CI_{95\%} [.11, .64]$), thus supporting Hypothesis 3 again, but perceived organizational trustworthiness did not (indirect effect = .22, bootstrap $SE = .13$, $CI_{95\%} [-.01, .50]$).

We ran separate mediation tests, controlling for neuroticism or social desirability, and found that neither neuroticism nor social desirability muted (a) the significant main effect of the experimental condition (PC violation vs. fulfillment) on perceived personal ethnic discrimination or (b) the significant mediator role that perceived personal ethnic discrimination played in the effect of the experimental condition on fear-driven silence. Therefore, neither neuroticism nor social desirability muted or skewed our results.

**Supplementary Meta-Analysis**

**Method**
We transformed each bivariate correlation coefficient in Studies 1-3 to Fisher’s $z$ and meta-analyzed the bivariate relationships. We individually corrected each observed correlation for attenuation due to unreliability in the measures (Hunter & Schmidt, 2004), and performed random-effects analyses, unless the sample heterogeneity statistics ($Q$) was non-significant which called for fixed-effects analyses (Hunter & Schmidt, 2004). Because $Q$ is statistically under-powered when the sample is small, we also calculated $I^2 = 100\% \times (Q-\text{df})/Q$; a larger value of $I^2$ indicates a higher level of sample heterogeneity; an $I^2$ of 75% typically indicates large heterogeneity, 50% moderate heterogeneity, and 25% low heterogeneity (Huedo-Medina et al., 2006). After estimating an optimally-weighted corrected mean Fisher’s $z$, by weighting each effect size as a function of inverse variance (Cohn & Becker, 2003), we converted it back to a correlation coefficient for the purpose of interpretation. The $p$ value and CI$_{95\%}$ of an estimated correlation coefficient were used to determine whether a bivariate relationship was significant. Then we created a meta-analytic correlation matrix based on the estimated mean correlation coefficients and used the matrix to perform meta-analytic path analyses in LISREL 8.80. We tested the mediating effects using Monte Carlo tests with 20,000 repetitions (Preacher & Selig, 2012).

**Results**

The estimated bivariate relationships are presented in Table 9. Consistent with Hypotheses 1 and 2 respectively, PC violation was positively related to perceived personal ethnic discrimination ($\bar{r}_c = .42, \text{CI}_{95\%} [.21, .59]$) and negatively related to perceived organizational trustworthiness ($\bar{r}_c = -.58, \text{CI}_{95\%} [-.65, -.49]$). Consistent with Hypothesis 3, perceived personal ethnic discrimination mediated the relationship between PC violation and fear-driven silence ($ab$
However, perceived organizational trustworthiness did not (\(ab = .05, CI_{95\%} [-.01, .12]\)). All results were consistent with Studies 1-3.

**General Discussion**

By integrating Lazarus and Folkman’s (1984) transactional theory of stress and coping with research on discrimination perception/attribution, we proposed a stress model of PC violation among ethnic minority employees. Specifically, we argued that ethnic minority employees would appraise PC violation as a threat, attributing PC violation to personal ethnic discrimination (ethnically relevant) and low organizational trustworthiness (non-ethnically relevant); however, only the former would lead to the emotion-focused coping response of fear-driven silence. Two survey studies and one experimental study with samples of different ethnic minority groups provided support for our model, even when we controlled for neuroticism and social desirability. Our supplementary meta-analysis rendered supportive evidence as well. The present findings contribute to both PC and ethnic discrimination research, shedding light on ethnic minority employees’ appraisal/attribution of and coping with PC violation.

**Theoretical Implications**

**PC research.** The present research, as noted earlier, makes a twofold contribution to the literature on PC. First, ethnic minorities’ unique psychological and behavioral responses to PC violation have been largely neglected (Blancero et al., 1996). The current findings are consistent with the social exchange account, that is, PC violation indeed is negatively related to perceived organizational trustworthiness. However, in the present research, perceived personal ethnic discrimination, rather than a low level of perceived organizational trustworthiness (Dulac et al., 2008), explained the fear-driven silence implication of PC violation. This finding highlights the need for alternative theoretical accounts explaining the implications of PC violation (beyond the
conventional account of social exchange). This need has been recognized by numerous PC scholars (e.g., Coyle-Shapiro & Parzefall, 2008; Taylor & Tekleab, 2004; Tomprou et al., 2015). While the social exchange account has provided coherent findings and valuable insights, it does not expand our understanding regarding the psychological underpinnings of PC violation. PCs are psychologically meaningful to employees, and yet they may have unique reactions to PC violation given their individual or group attributes, experiences, or backgrounds. By introducing alternative processes (transactional model of stress) that may help explain appraisal/attribution of and reactions to PC violation in ethnic minority groups, and controlling for a social exchange mechanism, we broaden the conceptual basis for PC research.

Second, much research has focused on PC breach and thus the behavioral implications of PC violation have received scarce attention (Coyle-Shapiro & Parzefall, 2008). This is surprising because PC violation can be a more proximate determinant of individual responses than PC breach. Presumably because PC violation has been largely embedded within the social exchange framework, the investigated responses to PC violation have been largely limited to factors relevant to social exchange, such as job satisfaction, organizational commitment, turnover intentions, and turnover (Dulac et al., 2008; Tekleab et al., 2005). Fear-driven silence has been theorized as a consequence of PC violation (e.g., Blancero et al. 1996, Rousseau 1989), but empirical work is scarce, presumably because silence is not a typical social exchange outcome. Although previous research has found that PC violation had a significant relationship with employees’ voice behaviors, how PC violation is related to employees’ fear-driven silence was not well understood. As noted earlier, voice and fear-driven silence are not bipolar opposites; rather, voice is problem-focused engagement coping whereas fear-driven silence is emotion-focused withdrawal coping. By establishing the indirect linkage between PC violation and fear-
driven silence via perceived personal ethnic discrimination, we have expanded the nomological network of PC violation and paved a new avenue for future research on PC violation.

Notably, perceived personal ethnic discrimination can lead to more prosocial outcomes, as ethnic minorities may proactively change their situation to protect themselves from potentially recurring negative situations (e.g., Wrzesniewski, Dutton, & Debebe, 2003). Yet whether ethnic minorities choose to engage in fear-driven silence or proactive behaviors to change their negative situations, the underlying motive is the same: self-protection.

**Ethnic discrimination research.** The present studies also advance ethnic discrimination research. A dearth of management theory explains both the determinants and consequences of perceived ethnic discrimination. As a result, research in this area has not fully explored the antecedents of perceived discrimination in organizational settings, which may lead to omitted variable problems. By adopting Lazarus and Folkman’s (1984) transactional theory of stress and coping and demonstrating that common stressors may be attributed to personal ethnic discrimination by ethnic minority employees, we provide a useful framework and insights that can guide future work in this area. Specifically, we identified PC violation—a common occurrence in organizational settings—as a stress encounter which can evoke ethnic minority employees’ perception of personal ethnic discrimination, perception of low organizational trustworthiness, and fear-driven silence. These findings are important, not only because PC violation is a ubiquitous phenomenon but also because these findings suggest that perceived personal ethnic discrimination is not exogenous but rather shaped by ethnic minority employees’ organizational experience.

**Study Limitations**
The current research has several limitations worth mentioning. First, to ensure the anonymity of ethnic minority participants, we used self-report data. Although theoretically speaking, all of the variables should be rated by participants because of their personal knowledge of these factors, self-reported data might be susceptible to common method bias. However, common method bias was unlikely to drive our findings for three reasons: (a) perceived organizational trustworthiness was not significantly correlated with perceived personal ethnic discrimination or fear-driven silence; (b) our experimental studies (with manipulated PC violation) and survey studies provided convergent evidence; and (c) the inclusion of neuroticism and social desirability did not mute or skew our findings (cf. Williams & Anderson, 1994).

Second, our study samples were relatively small, given the ethnic minority nature of our data. To address this, we used parametric bootstrapping, which is useful for studies with distributionally skewed variables and small/moderate samples (Preacher & Selig, 2012). The convergent results based on parametric bootstrapping methods rendered us confident about our findings. In addition, we conducted a supplementary meta-analysis with the data of our three studies, and found identical result patterns.

Third, we focused on the job promotion promised for employees’ work contributions in manipulating PC violation versus PC fulfillment in Study 3, as this kind of PC violation, among others (e.g., violation of PCs regarding compensation, benefits, or job assignments) is very common in the workplace. Such specificity might limit the generalizability of our findings. Nonetheless, the consistency between our findings of Study 3 and those of Studies 1 and 2 (not limited to any specific kind of PC violation) rendered us confidence in the generalizability of our overall findings.
Finally, we examined fear-driven silence as an emotion-focused withdrawal coping response to perceived personal ethnic discrimination, as this response is arguably the most common among ethnic minority employees. That being said, ethnic minority employees can use other types of coping strategies such as problem-focused control coping (e.g., taking initiatives to change the work condition for ethnic minority employees). This issue warrants future research.

**Directions for Future Research**

There are several other promising directions for future research. First, our study was limited to ethnic minorities in the U.S. Yet research has found that North Americans are motivated to possess, maintain, and enhance their positive self-views whereas Japanese people do not have such self-enhancement motivation (Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997). Therefore, the generalizability of our model across cultures remains to be investigated.

Second, although the current research focused on ethnic minority employees, our framework can be used to explain the experience of other minority groups, such as female employees (gender minorities in many industries and work organizations) and LGBTQIA employees (sexual minorities). A better understanding of how negative encounters shape perceived discrimination and evoke a wide range of coping responses would be valuable for theoretical development in discrimination research.

Third, future research could examine the role of ethnic identity in modifying the relationship between workplace experiences and perception of personal ethnic discrimination. Ethnic identity, which is positively related to self-esteem (Hughes, Witherspoon, Rivas-Drake, & West-Bey, 2009), sense of autonomy (Taub & McEwen, 1992), and sense of belongingness (Yap, Settles, & Pratt-Hyatt, 2011), may serve as a personal resource for ethnic minority
employees and help them minimize the threat posed by PC violation. Further investigations of ethnic identity can potentially provide insights on identity-based positive interventions for improving ethnic minority employees’ experience at work.

Finally, we focused on PC violation as a specific unjust stress encounter within an employee-organization relationship. Yet many other negative encounters which on the surface may not be clearly ethnically-relevant (e.g., abusive supervision, bullying, harassment, selective incivility, social undermining, ostracism, interpersonal conflict) can also be deemed unjust, triggering discrimination-related appraisal/attribution (e.g., Cortina, 2008). For example, although workplace ostracism is a form of omission-based behaviors, it can cause no less harm than commission-based behaviors such as bullying, harassment, and social undermining (O’Reilly, Robinson, Berdahl, & Banki, 2014). Testing the implications of these negative encounters for perceived discrimination would enrich the stress perspective proposed in the present research and expand the nomological networks of these factors.

**Practical Implications**

In the current dynamic and complex business environment, organizations should not let their employees fear speaking up, because doing so can damage organizational learning, change, and innovation (Detert & Treviño, 2010; Morrison & Milliken, 2000). PC violation not only damages employees’ perception of their organizations’ trustworthiness, but also evokes ethnic minorities’ perception of personal ethnic discrimination and subsequent fear-driven silence. While organizations should reduce the occurrence of PC violation, for example, by improving organizational support and employment relationships (Dulac et al., 2008), they should also help ethnic minorities make a less negative appraisal/attribution of PC violation when it occurs.
PC violation may not necessarily be driven by personal discrimination motives, and yet our findings demonstrate that ethnic minority employees tend to attribute PC violation to personal ethnic discrimination. Organizations should be proactive in providing information and establishing communication channels to reduce ethnic minority employees’ biases in appraisal/attribution of PC violation. In addition, creating an inclusive work environment where individuals feel that they both belong and are valued for their distinctiveness (Shore et al., 2011) may provide contextual cues that would reduce ethnic minority employees’ attribution of PC violation to personal ethnic discrimination. Finally, although organizations cannot prevent all instances of PC violation, they can take steps to repair employment relationships when PC violation does occur, for example by offering an apology (Kim, Dirks, Cooper, & Ferrin, 2006), providing financial compensation (Desmet, De Cremer, & van Dijk, 2011), or re-negotiating a PC (Rousseau, 1995; Tomprou et al., 2015).
Appendix 1

PC Violation Condition

Imagine that you are a business consultant in a medium size firm XYZ, hired five years ago. You need to gather information about the company you provide consulting service to and its problem for analyses. You read financial reports and articles in the news media, and look at information in databases and the Internet. Oftentimes, you conduct interviews and/or surveys with staff at levels ranging from assembly-line worker to CEO to determine the processes and resources the company uses. You can then process the collected data using computer simulations and statistical models and develop new methods to improve existing practices. In meetings and written reports, you present your recommendations to the company’s managers, and may stick around to help the company implement suggested solutions.

Over the past five years, you have successfully led several consulting projects and made considerable contributions to the firm. You were promised during your hiring that you would receive a promotion if you had excellent performance and made significant contributions to the firm. Despite your achievements and contributions, you have not been promoted as promised. Additionally, you have noticed that several other people at your level have recently been promoted, and you know that their performance was basically equal to yours.

PC Fulfillment (Control) Condition

Imagine that you are a business consultant in a medium size firm XYZ, hired five years ago. You need to gather information about the company you provide consulting service to and its problem for analyses. You read financial reports and articles in the news media, and look at information in databases and the Internet. Oftentimes, you conduct interviews and/or surveys...
with staff at levels ranging from assembly-line worker to CEO to determine the processes and resources the company uses. You can then process the collected data using computer simulations and statistical models and develop new methods to improve existing practices. In meetings and written reports, you present your recommendations to the company’s managers, and may stick around to help the company implement suggested solutions.

Over the past five years, you have successfully led several consulting projects and made considerable contributions to the firm. You were promised during your hiring that you would receive a promotion if you had excellent performance and made significant contributions to the firm. Based on your achievements and contributions, you were recently promoted as promised. However, this does not seem like anything special; you have noticed that several other people at your level have recently been promoted, and you know that their performance was basically equal to yours.
References


PC Violation, Discrimination, and Silence


Dulac, T., Coyle-Shapiro, J. A.-M., Henderson, D. J., & Wayne, S. J. (2008). Not all responses to breach are the same: The interconnection of social exchange and psychological


Hughes, D., Witherspoon, D., Rivas-Drake, D., and West-Bey, N. (2009). Received ethnic-racial socialization messages and youths’ academic and behavioral outcomes: Examining the


Table 1

Confirmatory Factor Analysis Results (Studies 1 and 2)

<table>
<thead>
<tr>
<th>Measurement Model</th>
<th>Study 1</th>
<th></th>
<th>Study 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( \chi^2 )</td>
<td>df</td>
<td>( \Delta \chi^2 ) (df = 3)</td>
<td>CFI</td>
</tr>
<tr>
<td>4-Factor PC violation, discrimination, trust, silence</td>
<td>38.74</td>
<td>21</td>
<td>--</td>
<td>.95</td>
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<tr>
<td>3-Factor PC violation-discrimination, trust, silence</td>
<td>123.95</td>
<td>24</td>
<td>85.21</td>
<td>.70</td>
</tr>
<tr>
<td>3-Factor PC violation-trust, discrimination, silence</td>
<td>59.22</td>
<td>24</td>
<td>20.48</td>
<td>.90</td>
</tr>
<tr>
<td>3-Factor PC violation-silence, discrimination, trust</td>
<td>142.05</td>
<td>24</td>
<td>103.31</td>
<td>.65</td>
</tr>
<tr>
<td>3-Factor PC violation, discrimination-trust, silence</td>
<td>88.84</td>
<td>24</td>
<td>50.10</td>
<td>.81</td>
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<tr>
<td>3-Factor PC violation, discrimination-silence, trust</td>
<td>92.24</td>
<td>24</td>
<td>53.50</td>
<td>.80</td>
</tr>
<tr>
<td>3-Factor PC violation, discrimination, trust-silence</td>
<td>93.65</td>
<td>24</td>
<td>54.91</td>
<td>.79</td>
</tr>
</tbody>
</table>

Note. All \( \Delta \chi^2 \)s (df = 3) were significant at the level of .001. Discrimination = perceived personal ethnic discrimination; trust = perceived organizational trustworthiness; and silence = fear-driven silence.
Table 2

*Descriptive Statistics and Correlations (Studies 1 and 2)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>( M )</th>
<th>( SD )</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>( M )</th>
<th>( SD )</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Psychological contract (PC) violation</td>
<td>2.35</td>
<td>1.09</td>
<td>--</td>
<td>.52***</td>
<td>-.57***</td>
<td>-.03</td>
<td>-.01</td>
<td>-.02</td>
<td>-.13</td>
<td>--</td>
<td>--</td>
<td>2.49</td>
<td>1.10</td>
</tr>
<tr>
<td>2. Perceived personal ethnic discrimination</td>
<td>3.13</td>
<td>1.01</td>
<td>.34**</td>
<td>--</td>
<td>-.15</td>
<td>.47***</td>
<td>-.04</td>
<td>.07</td>
<td>-.03</td>
<td>--</td>
<td>--</td>
<td>2.71</td>
<td>.97</td>
</tr>
<tr>
<td>3. Perceived organizational trustworthiness</td>
<td>3.85</td>
<td>.72</td>
<td>-.48***</td>
<td>-.17</td>
<td>--</td>
<td>-.01</td>
<td>.04</td>
<td>-.09</td>
<td>.07</td>
<td>--</td>
<td>--</td>
<td>3.70</td>
<td>.78</td>
</tr>
<tr>
<td>4. Fear-driven silence</td>
<td>2.64</td>
<td>1.12</td>
<td>.05</td>
<td>.50***</td>
<td>.01</td>
<td>--</td>
<td>.09</td>
<td>.15</td>
<td>.17</td>
<td>--</td>
<td>--</td>
<td>2.86</td>
<td>1.17</td>
</tr>
<tr>
<td>5. Age</td>
<td>37.08</td>
<td>7.91</td>
<td>-.10</td>
<td>-.40***</td>
<td>.22</td>
<td>-.42***</td>
<td>--</td>
<td>.05</td>
<td>.60***</td>
<td>--</td>
<td>--</td>
<td>34.33</td>
<td>6.90</td>
</tr>
<tr>
<td>6. Gender (1 = female, 0 = male)</td>
<td>.24</td>
<td>.43</td>
<td>-.08</td>
<td>-.54***</td>
<td>.09</td>
<td>-.43***</td>
<td>.33**</td>
<td>--</td>
<td>.17</td>
<td>--</td>
<td>--</td>
<td>.49</td>
<td>.50</td>
</tr>
<tr>
<td>7. Organizational tenure</td>
<td>7.47</td>
<td>3.56</td>
<td>-.06</td>
<td>.06</td>
<td>.10</td>
<td>.20</td>
<td>.25*</td>
<td>-.05</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>5.53</td>
<td>4.09</td>
</tr>
<tr>
<td>8. Neuroticism</td>
<td>3.42</td>
<td>1.01</td>
<td>.43***</td>
<td>.54***</td>
<td>-.16</td>
<td>.39***</td>
<td>-.20</td>
<td>-.48***</td>
<td>.15</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>9. Social desirability</td>
<td>6.46</td>
<td>1.96</td>
<td>-.23</td>
<td>.11</td>
<td>.23*</td>
<td>-.04</td>
<td>-.01</td>
<td>.12</td>
<td>.03</td>
<td>-.23</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

*Note.* Lower half (Study 1): \( N = 76 \). Upper half (Study 2): \( N = 116 \). *\( p < .05 \); **\( p < .01 \); ***\( p < .001 \) (two-tailed).
Table 3

Regression Analysis Predicting Perceived Personal Ethnic Discrimination and Perceived Organizational Trustworthiness (Study 1)

<table>
<thead>
<tr>
<th></th>
<th>Perceived Personal Ethnic Discrimination</th>
<th>Perceived Organizational Trustworthiness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1a</td>
<td>Model 2a</td>
</tr>
<tr>
<td></td>
<td>$b$ (bootstrap SE)</td>
<td>$b$ (bootstrap SE)</td>
</tr>
<tr>
<td>Intercept</td>
<td>3.70 (.53)**</td>
<td>1.87 (.75)*</td>
</tr>
<tr>
<td>Age</td>
<td>-.03 (.01)**</td>
<td>-.03 (.01)*</td>
</tr>
<tr>
<td>Gender</td>
<td>-1.00 (.25)**</td>
<td>-.81 (.24)**</td>
</tr>
<tr>
<td>Organizational tenure</td>
<td>.04 (.03)</td>
<td>.02 (.03)</td>
</tr>
<tr>
<td>PC violation</td>
<td>.27 (.08)**</td>
<td>.22 (.09)*</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>.28 (.11)*</td>
<td>.10 (.10)</td>
</tr>
<tr>
<td>Social desirability</td>
<td>.13 (.05)**</td>
<td>--</td>
</tr>
</tbody>
</table>

$F$ (df1, df2) | 13.81 (4, 71)** | 13.14 (6, 69)** | 6.28 (4, 71)** | 4.70 (6, 69)**
$R^2$ | .44 | .53 | .26 | .29
$\Delta F$ (df1, df2) | -- | 7.07 (2, 69)** | -- | 1.41 (2, 69)
$\Delta R^2$ | -- | .09 | -- | .03

Note. $N = 76$. PC violation represents psychological contract violation. Gender: 1 = female, 0 = male. The significance of regression coefficients was based on 1,000-replication bias-corrected accelerated bootstrapping. * $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed).
### Table 4

Regression Analysis Predicting Fear-Driven Silence (Study 1)

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$b$ (bootstrap SE)</td>
<td>$b$ (bootstrap SE)</td>
<td>$b$ (bootstrap SE)</td>
<td>$b$ (bootstrap SE)</td>
</tr>
<tr>
<td>Intercept</td>
<td>4.26 (.53)***</td>
<td>3.04 (.73)**</td>
<td>2.37 (1.06)*</td>
<td>2.35 (1.26)*</td>
</tr>
<tr>
<td>Age</td>
<td>-.06 (.01)***</td>
<td>-.05 (.01)**</td>
<td>-.05 (.01)**</td>
<td>-.05 (.02)**</td>
</tr>
<tr>
<td>Gender</td>
<td>-.75 (.31)*</td>
<td>-.42 (.37)</td>
<td>-.43 (.37)</td>
<td>-.26 (.41)</td>
</tr>
<tr>
<td>Organizational tenure</td>
<td>.09 (.03)**</td>
<td>.08 (.03)**</td>
<td>.08 (.03)**</td>
<td>.07 (.03)*</td>
</tr>
<tr>
<td>PC violation</td>
<td>.01 (.13)</td>
<td>-.08 (.12)</td>
<td>-.03 (.14)</td>
<td>-.10 (.15)</td>
</tr>
<tr>
<td>Perceived personal ethnic discrimination</td>
<td>.33 (.13)*</td>
<td>.32 (.14)*</td>
<td>.32 (.15)*</td>
<td></td>
</tr>
<tr>
<td>Perceived organizational trustworthiness</td>
<td></td>
<td>.18 (.18)</td>
<td>.18 (.18)</td>
<td></td>
</tr>
<tr>
<td>Neuroticism</td>
<td></td>
<td></td>
<td></td>
<td>.14 (.19)</td>
</tr>
<tr>
<td>Social desirability</td>
<td></td>
<td></td>
<td></td>
<td>-.05 (.07)</td>
</tr>
</tbody>
</table>

$F (df1, df2)$

<table>
<thead>
<tr>
<th></th>
<th>9.53 (4, 71)***</th>
<th>9.30 (5, 70)***</th>
<th>7.95 (6, 69)***</th>
<th>6.25 (8, 67)***</th>
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</thead>
<tbody>
<tr>
<td>$R^2$</td>
<td>.35</td>
<td>.40</td>
<td>.41</td>
<td>.43</td>
</tr>
<tr>
<td>$\Delta F (df1, df2)$</td>
<td>--</td>
<td>5.80 (1, 70)*</td>
<td>1.13 (1, 69)</td>
<td>1.08 (2, 67)</td>
</tr>
<tr>
<td>$\Delta R^2$</td>
<td>--</td>
<td>.05</td>
<td>.01</td>
<td>.02</td>
</tr>
</tbody>
</table>

**Note.** $N = 76$. PC violation represents psychological contract violation. Gender: 1 = female, 0 = male. The significance of regression coefficients was based on 1,000-replication bias-corrected accelerated bootstrapping. * $p < .05$; ** $p < .01$; *** $p < .001$ (two-tailed).
Table 5

Regression Analysis Predicting Perceived Personal Ethnic Discrimination and Perceived Organizational Trustworthiness (Study 2)

<table>
<thead>
<tr>
<th></th>
<th>Perceived Personal Ethnic Discrimination</th>
<th>Perceived Organizational Trustworthiness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>b (bootstrap SE)</em></td>
<td><em>b (bootstrap SE)</em></td>
</tr>
<tr>
<td>Intercept</td>
<td>1.76 (.45)***</td>
<td>4.62 (.38)***</td>
</tr>
<tr>
<td>Age</td>
<td>-.01 (.01)</td>
<td>.01 (.01)</td>
</tr>
<tr>
<td>Gender</td>
<td>.13 (.15)</td>
<td>-.15 (.12)</td>
</tr>
<tr>
<td>Organizational tenure</td>
<td>.02 (.03)</td>
<td>-.003 (.02)</td>
</tr>
<tr>
<td>PC violation</td>
<td>.47 (.07)***</td>
<td>-.40 (.07)***</td>
</tr>
</tbody>
</table>

F (df1, df2) | 10.82 (4, 111)*** | 13.90 (4, 111)***
R²            | .28                        | .33                        

Note. N = 116. PC violation represents psychological contract violation. Gender: 1 = female, 0 = male. The significance of regression coefficients was based on 1,000-replication bias-corrected accelerated bootstrapping. * p < .05; ** p < .01; *** p < .001 (two-tailed).
Table 6

*Regression Analysis Predicting Fear-Driven Silence (Study 2)*

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( b ) (bootstrap SE)</td>
<td>( b ) (bootstrap SE)</td>
<td>( b ) (bootstrap SE)</td>
</tr>
<tr>
<td>Intercept</td>
<td>2.52 (.72)**</td>
<td>1.14 (.62)</td>
<td>2.25 (-.06)*</td>
</tr>
<tr>
<td>Age</td>
<td>-.001 (.02)</td>
<td>.01 (.02)</td>
<td>.01 (.02)</td>
</tr>
<tr>
<td>Gender</td>
<td>.29 (.23)</td>
<td>.19 (.21)</td>
<td>.14 (.21)</td>
</tr>
<tr>
<td>Organizational tenure</td>
<td>.04 (.04)</td>
<td>.03 (.04)</td>
<td>.03 (.03)</td>
</tr>
<tr>
<td>PC violation</td>
<td>-.01 (.10)</td>
<td>-.37 (.10)**</td>
<td>-.50 (.12)****</td>
</tr>
<tr>
<td>Perceived personal ethnic discrimination</td>
<td>.78 (.01)**</td>
<td>.83 (.12)****</td>
<td></td>
</tr>
<tr>
<td>Perceived organizational trustworthiness</td>
<td></td>
<td>-.26 (.15)</td>
<td></td>
</tr>
<tr>
<td>( F ) (df1, df2)</td>
<td>1.27 (4, 111)</td>
<td>11.69 (5, 110)**</td>
<td>10.47 (6, 109)**</td>
</tr>
<tr>
<td>( R^2 )</td>
<td>.05</td>
<td>.35</td>
<td>.37</td>
</tr>
<tr>
<td>( \Delta F ) (df1, df2)</td>
<td>--</td>
<td>51.09 (1, 110)**</td>
<td>3.21 (1, 109)</td>
</tr>
<tr>
<td>( \Delta R^2 )</td>
<td>--</td>
<td>.30</td>
<td>.02</td>
</tr>
</tbody>
</table>

*Note.* \( N = 116 \). PC violation represents psychological contract violation. Gender: 1 = female, 0 = male. The significance of regression coefficients was based on 1,000-replication bias-corrected accelerated bootstrapping. * \( p < .05 \); ** \( p < .01 \); *** \( p < .001 \) (two-tailed).
Table 7

**Confirmatory Factor Analysis Results (Study 3)**

<table>
<thead>
<tr>
<th>Measurement Model</th>
<th>$\chi^2$</th>
<th>df</th>
<th>$\Delta\chi^2$ (df = 3)</th>
<th>CFI</th>
<th>RMSEA</th>
<th>SRMR</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Factor PC violation, discrimination, trust, silence</td>
<td>118.40</td>
<td>84</td>
<td>--</td>
<td>.99</td>
<td>.06</td>
<td>.04</td>
</tr>
<tr>
<td>3-Factor PC violation, discrimination, trust, silence</td>
<td>330.48</td>
<td>87</td>
<td>212.08</td>
<td>.92</td>
<td>.20</td>
<td>.09</td>
</tr>
<tr>
<td>3-Factor PC violation, discrimination, trust, silence</td>
<td>294.96</td>
<td>87</td>
<td>176.56</td>
<td>.93</td>
<td>.18</td>
<td>.07</td>
</tr>
<tr>
<td>3-Factor PC violation, discrimination, trust, silence</td>
<td>362.96</td>
<td>87</td>
<td>244.56</td>
<td>.90</td>
<td>.17</td>
<td>.12</td>
</tr>
<tr>
<td>3-Factor PC violation, discrimination, trust, silence</td>
<td>310.44</td>
<td>87</td>
<td>192.04</td>
<td>.92</td>
<td>.19</td>
<td>.08</td>
</tr>
<tr>
<td>3-Factor PC violation, discrimination, trust, silence</td>
<td>302.09</td>
<td>87</td>
<td>183.69</td>
<td>.93</td>
<td>.15</td>
<td>.08</td>
</tr>
<tr>
<td>3-Factor PC violation, discrimination, trust, silence</td>
<td>419.76</td>
<td>87</td>
<td>301.36</td>
<td>.88</td>
<td>.23</td>
<td>.17</td>
</tr>
</tbody>
</table>

*Note.* All $\Delta\chi^2$s were significant at the level of .001. Discrimination = perceived personal ethnic discrimination; trust = perceived organizational trustworthiness; and silence = fear-driven silence.
Table 8

*Descriptive Statistics and Correlations (Study 3)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Experimental condition</td>
<td>.48</td>
<td>.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Perceived personal ethnic discrimination</td>
<td>2.98</td>
<td>1.02</td>
<td>.26**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Perceived organizational trustworthiness</td>
<td>2.92</td>
<td>.98</td>
<td>-.47***</td>
<td>-.58***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Fear-driven silence</td>
<td>2.68</td>
<td>1.27</td>
<td>.07</td>
<td>.57***</td>
<td>-.41***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Age</td>
<td>33.89</td>
<td>10.77</td>
<td>-.01</td>
<td>-.10</td>
<td>.05</td>
<td>.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Gender (1 = female, 0 = male)</td>
<td>.61</td>
<td>.49</td>
<td>-.09</td>
<td>.05</td>
<td>-.17</td>
<td>.04</td>
<td>-.07</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Organizational tenure</td>
<td>10.66</td>
<td>10.12</td>
<td>-.02</td>
<td>-.05</td>
<td>-.04</td>
<td>.13</td>
<td>.73***</td>
<td>.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Neuroticism</td>
<td>3.18</td>
<td>1.15</td>
<td>.06</td>
<td>.13</td>
<td>-.09</td>
<td>.28**</td>
<td>-.20*</td>
<td>.19*</td>
<td>-.26**</td>
<td></td>
</tr>
<tr>
<td>9. Social desirability</td>
<td>4.48</td>
<td>2.11</td>
<td>-.14</td>
<td>-.27**</td>
<td>-.27**</td>
<td>-.26**</td>
<td>.17</td>
<td>-.14</td>
<td>.08</td>
<td>-.44***</td>
</tr>
</tbody>
</table>

*Note. N = 106. Experimental condition: 1 = PC violation, 0 = PC fulfillment. *p < .05; **p < .01; ***p < .001 (two-tailed).*
Table 9

*Meta-Analytic Results*

<table>
<thead>
<tr>
<th>Bivariate Relationship</th>
<th>( \bar{r} ) and CI(_{95%} )</th>
<th>( \bar{r}<em>c ) and CI(</em>{95%} )</th>
<th>( Q )</th>
<th>( I^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC violation → perceived personal ethnic discrimination</td>
<td>.37 (0.25, 0.47)(^a)</td>
<td>.42 (0.21, 0.59)</td>
<td>6.78*</td>
<td>70.50%</td>
</tr>
<tr>
<td>PC violation → perceived organizational trustworthiness</td>
<td>-.51 (-0.59, -0.42)(^a)</td>
<td>-.58 (-0.65, -0.49)(^a)</td>
<td>2.57</td>
<td>22.30%</td>
</tr>
<tr>
<td>PC violation → fear-driven silence</td>
<td>.03 (-0.09, 0.14)(^a)</td>
<td>.03 (-0.09, 0.14)(^a)</td>
<td>.71</td>
<td>0.00%</td>
</tr>
<tr>
<td>Perceived personal ethnic discrimination → fear-driven silence</td>
<td>.51 (0.42, 0.59)(^a)</td>
<td>.59 (0.51, 0.66)(^a)</td>
<td>.65</td>
<td>0.00%</td>
</tr>
<tr>
<td>Perceived personal ethnic discrimination ↔ perceived</td>
<td>-.32 (-0.58, 0.01)</td>
<td>-.36 (-0.63, -0.01)</td>
<td>20.17***</td>
<td>90.08%</td>
</tr>
<tr>
<td>organizational trustworthiness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perceived organizational trustworthiness → fear-driven silence</td>
<td>-.15 (-0.41, 0.14)</td>
<td>-.16 (-0.45, -0.16)</td>
<td>14.94***</td>
<td>86.62%</td>
</tr>
</tbody>
</table>

*Note.* \( \bar{r} \) represents uncorrected mean correlation, whereas \( \bar{r}_c \) represents mean correlation corrected for attenuation due to measurement unreliability. CI represents confidence interval. \( Q \) and \( I^2 \) are for the estimation of attenuation-corrected effect sizes. \(^a\) Fixed effects models were used for the estimations. * \( p < .05; ** \( p < .01; *** \( p < .001 \) (two-tailed).
Figure 1. A stress model of psychological contract violation among ethnic minority employees