Echoes of Silence: Employee Silence as a Mediator Between Overall Justice and Employee Outcomes

David B. Whiteside · Laurie J. Barclay

Received: 28 September 2011/Accepted: 18 August 2012/Published online: 31 August 2012 © Springer Science+Business Media B.V. 2012

Abstract Despite burgeoning interest in employee silence, there are still significant gaps in our understanding of (a) the antecedents of employee silence in organizations and (b) the implications of engaging in silence for employees. Using two experimental studies (Study 1a, N = 91; Study 1b, N = 152) and a field survey of full-time working adults (Study 2, N = 308), we examined overall justice as an antecedent of acquiescent (i.e., silence motivated by futility) and quiescent silence (i.e., silence motivated by fear of sanctions). Across the studies, results indicated that overall justice is a significant predictor of both types of silence in organizations. Furthermore, Study 2 indicated that the implications of silence extend beyond the restriction of information flow in organizations to include employee outcomes. Specifically, acquiescent silence partially or fully mediated the relationship between overall justice perceptions and emotional exhaustion, psychological withdrawal, physical withdrawal, and performance. Quiescent silence partially mediated these relationships, with the exception of performance. The theoretical and practical implications of these findings for both the justice and silence literatures are discussed.

Keywords Employee silence · Acquiescent silence · Quiescent silence · Fairness · Overall justice · Performance

School of Business and Economics, Wilfrid Laurier University, 75 University Avenue West, Waterloo, ON N2L 3C5, Canada

L. J. Barclay e-mail: lbarclay@wlu.ca

D. B. Whiteside () · L. J. Barclay e-mail: whit6090@mylaurier.ca

The night before the tragic *Challenger* launch of 1986, a group of contractor engineers met with NASA officials in an emergency meeting. Despite having full knowledge of faulty O-rings on the shuttle, the engineers chose to remain silent rather than formally objecting and delaying the launch. The following morning, the O-rings disintegrated during takeoff, leading to the subsequent shuttle explosion and death of seven crewmembers (Vaughan 1998). Similar instances of silence have also been documented in major corporate scandals such as Enron (Premeaux 2003) and WorldCom (Akhigbe et al. 2005), where employees had knowledge of the illegal and unethical practices of their employers but chose to withhold this information. Although these examples highlight severe cases of employee silence and its potential ramifications, this phenomenon is extremely pervasive within organizations. Milliken et al. (2003), for instance, found that 85 % of managers and professionals had withheld critical organizational information. Furthermore, silence can encompass a range of issues associated with organizational functioning, from relatively innocuous (e.g., knowledge of weak processes) to more serious concerns (e.g., illegal behaviors) (Van Dyne et al. 2003).

Despite burgeoning interest in employee silence, there are significant gaps in our understanding of this phenomenon (cf. Brinsfield et al. 2009). First, relatively little is known about the antecedents of employee silence in organizations. Although it has been theorized that fairness perceptions can be associated with employee silence, few studies have empirically examined these relationships. We address this gap by examining overall justice perceptions

¹ An exception is Tangirala and Ramanujam's (2008) study which found that general silence behavior was predicted by the interaction between employees' procedural justice perceptions and group-level procedural justice climate.



as an antecedent of employee silence. Exploring fairness in this context is important because substantial evidence suggests that fairness is a critical factor that affects a wide array of employee attitudes and behaviors within organizations (Cohen-Charash and Spector 2001; Colquitt et al. 2001). Furthermore, fairness can be practically addressed through organizational interventions (e.g., Cropanzano et al. 2007; Skarlicki and Latham 1996). Thus, identifying fairness as an antecedent may present opportunities to prevent and/or manage employee silence.

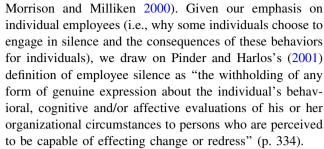
Second, although it has been theorized that the implications of employee silence extend beyond the restriction of information flow in organizations to employee outcomes (Pinder and Harlos 2001), no empirical studies have tested these relationships. We examine the mediating role of silence in the relationship between overall justice perceptions and four employee outcomes: emotional exhaustion, psychological withdrawal, physical withdrawal, and performance. By addressing this gap, we aim to provide a more comprehensive understanding of the implications of employee silence within organizations, which can ultimately help organizations manage this phenomenon more effectively.

Third, although silence has been conceptualized as a multidimensional construct (Pinder and Harlos 2001; Van Dyne et al. 2003), empirical research has focused on *general* silence behavior rather than specific *types* of silence. We address this gap by examining *acquiescent silence* (i.e., silence motivated by futility) and *quiescent silence* (i.e., silence motivated by fear). By exploring these specific types of silence, we are able to test theoretical propositions that have yet to be empirically explored including the role of overall justice as an antecedent of acquiescent and quiescent silence as well as whether these types of silence have differential effects on employee outcomes.

We explore our research questions across three studies. The purpose of Studies 1a and 1b was to examine overall justice as an antecedent of employee silence (i.e., acquiescent and quiescent silence) using an experimental design. In Study 2, we used a survey to re-examine the relationship between overall justice and acquiescent/quiescent silence in a field sample of working adults. We also examine the mediating roles of acquiescent and quiescent silence in the relationship between overall justice perceptions and employee outcomes.

Theoretical Background

Employee silence has been conceptualized as an individual-level behavior (e.g., Pinder and Harlos 2001) and as an organizational-level phenomenon (e.g., how collective silence behavior emerges in groups of employees; e.g.,



Although it is often assumed that employee silence is the opposite of employee voice, theoretical and empirical evidence supports the distinctiveness of these constructs (e.g., Brinsfield et al. 2009; Detert and Edmondson 2011; Kish-Gephart et al. 2009; Tangirala and Ramanujam 2008; Van Dyne et al. 2003). There are several key distinctions between voice and silence. First, there are different motivations behind voice and silence; employee voice is typically a pro-social behavior that is motivated by the desire to express ideas, information, and opinions about work improvements or the desire for change (Hirschman 1970), whereas employee silence can be motivated by self-protection or the desire to avoid futile effort (Van Dyne et al. 2003). Second, the phenomenological experience of voice and silence differ (Pinder and Harlos 2001). For example, failing to voice because one lacks ideas is a different phenomenological experience than actively withholding information because one fears the consequences associated with expressing ideas (Detert and Edmondson 2011). Third, voice and silence have been theorized to have different antecedents and consequences (e.g., Van Dyne et al. 2003). For example, having a proactive personality can increase voice because these individuals are more likely to identify opportunities for improvement. However, this personality type may be less relevant for silence because silence is not associated with the number of ideas one has, but rather the withholding of one's evaluations because of the constraints in the situation (Kish-Gephart et al. 2009). Fourth, adopting a silence perspective can identify additional barriers and boundary conditions that can enhance our understanding of other organizational phenomena. For instance, to enhance organizational learning, managers not only need to encourage people to voice their ideas but also identify what is preventing people from doing so (Edmondson 2002, 2003). Taken together, these differences highlight (a) the value of examining employee silence as a distinct construct and (b) that it is important not to assume that what is understood about voice applies to silence and vice versa (cf. Detert and Edmondson 2011).

Although employee silence can be motivated by a variety of factors (e.g., organizational politics), Pinder and Harlos (2001) argued that fairness can be particularly influential in the emergence of acquiescent and quiescent silence. Acquiescent silence is a passive behavior that is



motivated by an employee's feelings of futility and/or beliefs that expressing information will not be heard by the organization or result in meaningful change (Pinder and Harlos 2001). For example, if an employee withholds information about a dangerous work environment because he or she does not believe that the organization will address the problem, then the employee is engaging in acquiescent silence. In this sense, acquiescent silence can be conceptualized as a behavioral representation of learned help-lessness (Seligman 1975).

Quiescent silence, in contrast, is a self-protective or defensive behavior that occurs when an employee purposely withholds information to avoid negative repercussions (Pinder and Harlos 2001). Unlike acquiescent, quiescent silence is proactive by nature; it involves a consideration of viable alternatives and the decision to remain silent is motivated by the desire to protect the self from external threats (Van Dyne et al. 2003). For example, if an employee has knowledge of a supervisor who has been engaging in fraudulent trading practices and purposely withholds this information for fear of retaliation (e.g., job loss, denial of promotion, etc.), then the employee is engaging in quiescent silence.

Overall Justice as a Predictor of Silence

Organizational justice refers to people's perceptions of fairness within organizational contexts (cf. Greenberg 1987). Justice researchers have further conceptualized these perceptions as event-based (i.e., assessments of the fairness of specific events) versus entity-based (i.e., assessments of the fairness of a person/organization across time and situations; Cropanzano et al. 2001). Furthermore, whereas some researchers have explored specific justice dimensions (e.g., distributive, procedural, interpersonal, and informational; Colquitt 2001), others have focused on overall justice judgments (e.g., Ambrose and Schminke 2009).²

We focus on entity-based overall justice (hereafter referred to as *overall justice*) because it has a number of advantages for our research questions. First, by emphasizing individuals' perceptions across time and situations, entity-based overall justice perceptions are more stable and can provide a better indication of how employees generally behave (Cropanzano and Byrne 2000; Holtz and Harold 2009). Second, overall justice can be more appropriate when global outcomes (e.g., performance) are being considered (Colquitt and Shaw 2005). Given our interest in exploring

relatively broad employee outcomes, this approach allows us to match the level of specificity between our predictors and outcomes. Third, although individuals can distinguish between the different dimensions of justice, overall perceptions can provide the most complete and accurate depiction of how individuals make and use justice judgments and it is these overall perceptions that ultimately drive behavior (Ambrose and Schminke 2009; Jones and Martens 2009; Lind 2001a, b; Tornblom and Vermunt 1999). Finally, it is common for researchers to make identical predictions for the various justice dimensions (Kernan and Hanges 2002; Liao and Rupp 2005). Thus, focusing on overall justice can allow for more parsimonious explanations while not sacrificing understanding.

We propose that overall justice can be an important antecedent of silence because it serves psychological needs related to acquiescent and quiescent silence. Specifically, justice can address instrumental (i.e., justice serves economic interests), relational (i.e., justice can affirm individuals' identity, value, and/or group status), and moral concerns (i.e., justice upholds moral standards and norms). Furthermore, justice can fulfill psychological needs related to control, belonging, self-esteem, and meaningful existence (Cropanzano et al. 2001; Rupp 2011).

We argue that fairness can enhance individuals' belief that they can make meaningful change in their environment, thereby decreasing acquiescent silence (i.e., silence motivated by feelings of futility). Specifically, individuals who feel fairly treated are more likely to believe that they can effectively influence their environment (cf. instrumental model; Thibault and Walker 1975) and that they are valued by the organization and have the standing necessary to provide valuable input (cf. relational model; Lind and Tyler 1988). Furthermore, justice can enhance individuals' feelings of control because it suggests that their actions have the potential to create meaningful change. Taken together, we hypothesize that overall justice will be negatively related to acquiescent silence because justice can fulfill critical psychological needs that reduce perceived futility (i.e., that the organization will dismiss their concerns).

Hypothesis 1 Individuals will be less inclined to engage in acquiescent silence when they experience high, rather than low, levels of overall justice.

With respect to quiescent silence (i.e., silence motivated by a fear of repercussions), individuals can have a natural fear of challenging authority because higher status group members typically have the ability to punish those who threaten their position (e.g., by taking away resources, inflicting social harm; Kish-Gephart et al. 2009). This fear can be associated with feelings of apprehension (Rachman 1990) and anxiety about ones' ability to cope with the situation (Bandura 1986). We argue that fairness can



² Overall justice has been assessed using the individual justice dimensions to create a latent overall justice factor (i.e., variance accounted for approach; e.g., Barclay and Kiefer 2012) and by directly assessing overall justice (e.g., Ambrose and Schminke 2009). Furthermore, overall justice can reflect an event- or entity-based approach (e.g., Ambrose and Schminke 2009; Lind 2001a).

decrease quiescent silence for two reasons. First, justice can decrease the fear associated with challenging authorities by signaling to employees that they are valued members of the organization (cf. relational model; Lind and Tyler 1988) and that the organization is moral and will act in ways that value human dignity and self-worth (cf. deontic model; Folger 1998). This can diminish the fear underlying quiescent silence by reducing the perceived threat of the situation (Kish-Gephart et al. 2009). Second, individuals who have been fairly treated have had positive past experiences with their authorities. This can provide individuals with a sense of efficacy and controllability that can enhance their belief that they will be able to cope with potentially threatening situations (Kish-Gephart et al. 2009). In contrast, challenging authorities is more likely to instill fear in employees when they perceive low fairness in their organization because it can be a threatening situation that may be associated with personal repercussions. Thus, employees in these environments may be more likely to prioritize their own interests and self-protection by remaining silent. Taken together, we propose that overall justice is negatively related to quiescent silence because justice can diminish the perceived threat associated with challenging authority and fulfill critical psychological needs (e.g., control, belongingness, and esteem) that enhance individuals' belief that they can effectively cope with the situation.

Hypothesis 2 Individuals will be less inclined to engage in quiescent silence when they experience high, rather than low, levels of overall justice.

Studies 1a and 1b

Method

Sample and Procedure

Participants were recruited through a research pool at a business school in Canada and received course credit for their participation. Study 1a consisted of 91 participants (57 % male; average age = 21 years, SD = .65 years) and Study 1b consisted of 152 participants (59 % male; average age = 20 years; SD = 3.35 years). We used scenarios to test our hypotheses. Participants were asked to imagine themselves as the employee in the scenario. In both studies, participants were randomly assigned to either a *high* or *low* overall justice condition (see Appendices A and B for the full scenarios). With the exception of the manipulation, the information provided was identical across the conditions. To increase the generalizability of our findings, Study 1a focused on a relatively innocuous organizational issue

(i.e., improving the organization's storage system), whereas Study 1b examined a more serious organizational issue (i.e., a serious violation of health and safety policies in a meat-processing plant that could cause illness and/or death).

Measures

Unless otherwise indicated, participants responded to a 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*to a great extent*). Items were averaged to form the measures.

Manipulation Check We measured overall justice with a shortened version of Ambrose and Schminke's (2009) Perceived Overall Justice Scale (three-items; e.g., "For the most part, this organization treats its employees fairly").

Employee Silence Parker et al.'s (2009) scale was used to measure acquiescent (5-items; "My view would make no difference," "My view would be dismissed," "No one would take much notice of my concerns," "There is a lack of time or opportunity," and "I am not confident about the idea") and quiescent silence (5-items; "I would not want to hurt my career," "I would not want to damage my reputation," "I would not want to hurt my position in the team," "I would not want to be seen as difficult or rude," and "I would not want to damage my relationship with others"). Parker et al. (2009) followed Hinkin's (1995, 1998) threestage scale development and validation process to create the scale. With respect to item generation, the authors used the critical incident technique and existing theory to develop the items (e.g., Pinder and Harlos 2001; Van Dyne et al. 2003). A panel of 15 judges subsequently evaluated these items for clarity, ambiguity, and consistency with the theoretical definitions. This ensured that the motives underlying acquiescent (i.e., futility) and quiescent silence (i.e., fear) were embedded within each item. With respect to scale development and evaluation, the authors used four separate samples to conduct exploratory and confirmatory analyses as well as establish the psychometric properties of the scales. The resulting scales demonstrated a consistent factor structure and good psychometric properties (e.g., reliabilities > .70). Given the nature of the scenarios, we made minor modifications to these scales. In Study 1a, we eliminated "I am not confident about the idea" from the acquiescent scale because our scenario depicted a situation in which the individual was confident that the idea had merit and we wanted to prevent confounding our manipulation with the dependent measure. In Study 1b, we changed the item wording to refer to "concerns" rather than "views" and "ideas." We also added two items to the quiescent silence measure to better reflect the scenario ("I would not want to create negative consequences for myself" and "I would not want to get in trouble"). The question stem was:



"Considering the situation at hand, please indicate the extent to which these factors influenced your ultimate decision about whether to [say something or withhold your storage system idea; Study 1a]/[speak up about this issue; Study 1b]". Cronbach's alphas for acquiescent silence (Study 1a, $\alpha = .71$; Study 1b, $\alpha = .83$) and quiescent silence (Study 1a, $\alpha = .86$; Study 1b, $\alpha = .88$) met acceptable thresholds (cf. Cronbach 1951).

Control Variable We controlled for gender given that previous research has found gender differences in the degree and type of silence that can occur (Harlos 2010; Pinder and Harlos 2001).

Results

Table 1 displays the means, reliabilities, and correlations for Studies 1a and 1b. Given the relative newness of our silence measures, we conducted confirmatory factor analyses (CFA) to ensure that overall justice, acquiescent silence, and quiescent silence were distinct. Results supported a three-factor model in both studies (see Table 2 for full results).

Prior to examining our hypotheses, we tested the effectiveness of our manipulations. Participants in the high overall justice condition rated overall justice to be significantly greater than those in the low overall justice condition in both Study 1a (M=4.35, SD = .53 vs. M=2.08, SD = .73, respectively, F(1,89)=275.50, p<.001) and Study 1b (M=4.50, SD = .46 vs. M=1.80, SD = .63, respectively, F(1,151)=794.91, p<.001). Thus, our manipulation had its intended effect in both studies.

Results for H1 indicated that participants in the high justice condition were less likely to engage in acquiescent silence than participants in the low justice condition for both Study 1a (M=2.24, SD = .77 vs. M=3.13, SD = .80, respectively, F(1,90)=28.60, p<.001) and Study 1b (M=1.72, SD = .56 vs. M=2.58, SD=.85, respectively, F(1,151)=48.55, p<.001). Thus, H1 was supported for both studies.

Results for H2 indicated that participants in the high justice condition were less likely to engage in quiescent silence than participants in the low justice condition for both Study 1a (M=2.77, SD = .93 vs. M=3.14, SD = .91, respectively, F(1,90)=3.71, p=.06) and Study 1b (M=2.96, SD = .98 vs. M=3.38, SD=.92, respectively, F(1,151)=7.61, p<.01). Thus, H2 was supported for both studies.

Discussion

Despite the strong theoretical association between overall justice, acquiescent silence, and quiescent silence, our study was the first to empirically examine these relationships. Our findings indicate that overall justice can be an important antecedent of employee silence; that is, individuals were less likely to engage in both acquiescent and quiescent silence when overall justice was perceived as high versus low. Furthermore, these effects were demonstrated for a relatively innocuous (Study 1a) and a more serious organizational issue (Study 1b).

Although Studies 1a and 1b demonstrated that fairness can be associated with acquiescent and quiescent silence, the relationships were explored in a controlled environment and may have been limited by the artificial nature of the study design (i.e., a scenario with undergraduate participants). Thus, it remains unclear (a) whether these relationships generalize to actual working environments with full-time employees and (b) how engaging in acquiescent and quiescent silence affects employees. To address these questions, we conducted Study 2 using a field survey with a sample of employees from a broad range of industries and occupations.

Study 2

Although research has focused on the effects of silence on organizational outcomes, theory suggests that acquiescent

Table 1 Study 1a and 1b: Means, standard deviations, reliabilities, and correlations

| | Study 1a ^a | | | | | | Study 1b ^b | | | | | | |
|------------------------|-----------------------|------|-------|-------|-------|-----|-----------------------|------|-------|-------|-------|-----|--|
| | M | SD | 1 | 2 | 3 | 4 | M | SD | 1 | 2 | 3 | 4 | |
| 1. Overall justice | 3.17 | 1.31 | (.89) | | | | 3.11 | 1.47 | (.94) | | | | |
| 2. Acquiescent silence | 2.70 | .89 | 51** | (.71) | | | 2.16 | .82 | 44** | (.83) | | | |
| 3. Quiescent silence | 2.95 | .93 | 13 | .41** | (.86) | | 3.16 | .95 | 18* | .55** | (.88) | | |
| 4. Gender | .57 | .50 | 16 | 03 | 19 | (-) | .59 | .49 | 34** | .02 | .00 | (-) | |

Note Reliabilities (Cronbach's alpha) are shown on the diagonal in parentheses. Gender is coded 1 = Male, 0 = Female



^a N = 91 (no missing data)

^b N = 152 (no missing data)

^{*}p < .05. **p < .01

D. B. Whiteside, L. J. Barclay

Table 2 Study 1a, 1b, and 2: Confirmatory factor analyses (overall justice, acquiescent silence, and quiescent silence)

| Item | χ^2 | p | df | CFI ^a | RMSEA ^a | χ ² Difference test ^b |
|---------------------------------|----------|----|-----|------------------|--------------------|---|
| Study 1a | | | | | | |
| Three-factor model ^c | 84.46 | ** | 51 | .95 | .06 | |
| Two-factor model ^d | 131.02 | ** | 53 | .87 | .09 | 46.56; $\Delta df = 2, p < .001$ |
| One-factor model | 231.14 | ** | 54 | .71 | .14 | 146.68; $\Delta df = 3, p < .001$ |
| Study 1b | | | | | | |
| Three-factor model ^c | 154.51 | ** | 84 | .95 | .07 | |
| Two-factor model ^d | 347.05 | ** | 86 | .81 | .14 | 192.54; $\Delta df = 2, p < .001$ |
| One-factor model | 721.10 | ** | 87 | .53 | .22 | 566.59; $\Delta df = 3, p < .001$ |
| Study 2 | | | | | | |
| Three-factor model ^c | 393.06 | ** | 130 | .94 | .08 | |
| Two-factor model ^d | 752.04 | ** | 132 | .85 | .13 | 358.98; $\Delta df = 2, p < .001$ |
| One-factor model | 2352.09 | ** | 133 | .47 | .24 | 1959.03; $\Delta df = 3, p < .001$ |

^a *CFI* comparative fit index (values between .90 and .95 indicate average fit, values >. 95 indicate good fit), RMSEA root mean square error of approximation (smaller values indicate better fit, values should not exceed .08) (Bentler 2004; Browne and Cudeck 1993; Carmines and McIver 1981)

and quiescent silence are also likely to have detrimental consequences for employees (Pinder and Harlos 2001). In this study, we explore the mediating role of acquiescent and quiescent silence in the relationship between overall justice and four employee outcomes: emotional exhaustion, psychological withdrawal, physical withdrawal, and performance. These outcomes were selected because they have established theoretical and empirical relationships with justice (e.g., Colquitt et al. 2001; Cropanzano and Wright 2011).

Overall Justice as a Predictor of Employee Outcomes

Emotional exhaustion has been defined as the emotional depletion that occurs when emotional demands exceed an individual's resources (Maslach and Jackson 1982). According to conservation of resource theory, employees possess a limited number of resources to cope with the demands of their jobs (Hobfoll 1989). Emotional exhaustion can occur when individuals feel that these resources have been depleted (Wright and Cropanzano 1998). Feeling fairly treated, however, can build individuals' resources and their ability to cope with job demands. In other words, justice perceptions are negatively related to emotional exhaustion because justice fulfills psychological needs (e.g., control, belonging, and self-esteem), which can enhance employees' ability to cope with the demands of their workplace (Cropanzano and Wright 2011).

We also explore psychological withdrawal, physical withdrawal, and performance. Psychological withdrawal

refers to cognitive disengagement from the work situation including thinking of being absent or daydreaming, whereas physical withdrawal is defined as behavioral disengagement from the work situation including leaving work early (Lehman and Simpson 1992). Theoretically, justice has been related to these behaviors in several ways. First, similar to emotional exhaustion, individuals may experience increased withdrawal and decreased performance as a way to manage or conserve their resources (Hobfoll 1989). However, justice can build individuals' resources and ability to cope with job demands, which can decrease their tendency to withdraw and increase their ability to perform. Second, from a social exchange perspective, employees who feel fairly treated can feel compelled to reciprocate fair treatment with increased positive behaviors (performance) and fewer negative behaviors (withdrawal) (Cropanzano et al. 2001).

The Mediating Role of Acquiescent Silence

People have a strong need for control over their immediate environment and the decisions that affect them (Parker 1993). One avenue that this need can be met is through the belief that employees can influence their organization by expressing their ideas and opinions (Lind and Tyler 1988). However, acquiescent silence occurs when employees resign themselves from this possibility (Pinder and Harlos 2001). In other words, acquiescent silence is a behavioral indication that one's needs for control and meaningful existence are not being fulfilled. Previous research has



^b We used the three-factor model as the comparison

^c This model consisted of three factors: overall justice, acquiescent silence, and quiescent silence

^d This model consisted of two factors: silence (acquiescent and quiescent) and justice

^{*}p < .05. **p < .01

demonstrated that the strain that arises when these needs are not fulfilled can deplete individuals' physical and mental resources (Hobfoll 1989; Parker 1993). Thus, we argue that acquiescent silence can deplete resources that are needed to cope with workplace demands because individuals must devote resources towards managing feelings of resignation and futility (Bakker and Demerouti 2007; Demerouti et al. 2001).

Building on this argument, we propose that acquiescent silence can (a) be associated with employees' emotional exhaustion, psychological withdrawal, physical withdrawal, and performance and (b) serve as a mechanism that can help explain the relationship between overall justice and employee outcomes. Specifically, we argue that the strain associated with managing the sense of futility can detract from employees' ability to cope with emotional demands, thereby making them more susceptible to feelings of emotional exhaustion (Hobfoll 1989; Maslach and Jackson 1982). In terms of withdrawal, employees can psychologically and physically withdraw to cope with the lack of control and feelings of resignation. In other words, employees may attempt to remove or withdraw themselves from the stress associated with this futility to conserve their resources (Parker 1993). In terms of performance, the perceived inability to influence one's environment can distract employees from the task at hand and reduce their capacity to focus effectively on their work, which can reduce performance (Gilboa et al. 2008). We predict partial mediation given that previous research has identified other mechanisms that can potentially play a role in these relationships (e.g., Barclay et al. 2005; Rupp and Cropanzano 2002) and partial mediation is the norm in psychological research (Baron and Kenny 1986),

Hypothesis 3 Acquiescent silence partially mediates the relationship between overall justice perceptions and emotional exhaustion (H3a), psychological withdrawal (H3b), physical withdrawal (H3c), and performance (H3d).

The Mediating Role of Quiescent Silence

We also propose that quiescent silence can act as a mechanism linking overall justice and employee outcomes. Quiescent silence is a behavioral indication that one's needs for safety and belonging are not being fulfilled (Pinder and Harlos 2001). This can be a source of strain for individuals. However, in contrast to acquiescent silence, the strain associated with quiescent silence emerges from the active inhibition required to protect oneself rather than the need to manage feelings of resignation. By consuming valuable psychological and emotional resources, this inhibition can have implications for the individual (e.g., Pennebaker and Beall 1986).

With respect to emotional exhaustion, individuals must allocate psychological and emotional resources towards actively refraining from expressing their views and protecting themselves. Through this depletion of resources, individuals can find it more difficult to manage the demands in their work environment, which can increase emotional exhaustion. In terms of withdrawal, individuals may psychologically and physically withdraw to protect themselves as well as cope with the stress associated with the experience (Leiter 1991). Finally, in terms of performance, quiescent silence can deplete cognitive and emotional resources required to perform and distract the employee from engaging in the task at hand (Gilboa et al. 2008). Taken together, we argue that quiescent silence can serve as one mechanism that can help explain the relationship between overall justice and employee outcomes. Similar to acquiescent silence, we hypothesize partial rather than full mediation.

Hypothesis 4 Quiescent silence partially mediates the relationship between overall justice perceptions and emotional exhaustion (H4a), psychological withdrawal (H4b), physiological withdrawal (H4c), and performance (H4d).

Method

Sample and Procedure

Participants were recruited with the assistance of Zoomerang—an online data collection service that caters to educational, non-profit, and market research—and received Zoomerang points for online purchases. Researchers in a number of domains have used this service including organizational behavior (e.g., Swimberghe et al. 2011) and psychology (e.g., Inbar et al. 2009). Online data collection has been found to produce similar quality data as compared to traditional paper and pencil collection but it provides access to more diverse and representative samples that are less bounded by geography, demographics, industry, or occupation (e.g., Gosling et al. 2004).

Participants were full-time employees from the United States and came from a broad range of companies and occupations including customer service (14.8 %), administration (12.9 %), teaching (9.4 %), manufacturing (8.7 %), financial (8.1 %), information technology (6.5 %), marketing (1.6 %), human resources (1.6 %), and other occupations such as construction, government, and health care (36.4 %). Our sample consisted of 75.2 % employees and 23.5 % managers (1.3 % undisclosed). No significant differences were observed for rank or industry.

Participants completed two online surveys related to their workplace experiences. At Time 1, participants completed a questionnaire for our predictor and demographic variables (N = 495). One month later (Time 2), participants were



re-contacted and asked to complete a second questionnaire that assessed the mediating and outcome variables. Our final sample consisted of 308 participants who responded at both time periods. The attrition rate between Time 1 and 2 was 38 %, which is considered relatively low for this type of sample (Baruch 1999; Visser 1982). In our final sample, the average participant was 43 years of age and had been employed at their company for 9.6 years. The sample was 52 % male and 83 % Caucasian. There were no significant demographic differences between individuals who only completed Time 1 and those who completed both time periods.

Measures

Overall Justice Perceptions were measured with Ambrose and Schminke's (2009) scale (six items; e.g., "Overall, I'm treated fairly by my organization"). Responses ranged from 1 (strongly disagree) to 7 (strongly agree). The question stem was: "Thinking back on the last six months in your job/work, indicate the extent to which you agree with the following statements."³

Acquiescent and Quiescent Silence were measured with the same scales as Study 1b. The question stem was: "In the workplace, staff put forward opinions, views, or information to help improve the situation. However, we all experience times where we hold back on putting forward our view even though it might be helpful to the organization. For example, we say we "agree" with things even though we don't really, we keep quiet when we have an idea or suggestion, or we don't draw attention to someone else's mistake. Take a moment to think about why you most often hold back your ideas, opinion, or information in your workplace..." Responses ranged from 1 (never) to 5 (very often why I hold back my view). Cronbach's alphas for acquiescent silence ($\alpha = .82$) and quiescent silence ($\alpha = .88$) met acceptable thresholds (cf. Cronbach 1951).

Emotional Exhaustion was measured using the Maslach Burnout Inventory sub-scale (nine-items; e.g., "I feel like I'm at the end of my rope"; Maslach and Jackson 1982). Responses ranged from 1 (never) to 6 (every day). The question stem was: "Please indicate how often you have experienced the given statement in the past month at your workplace."

Withdrawal was measured with scales from Lehman and Simpson (1992) that assessed *psychological withdrawal* (six items; e.g., "In the last month, how often did

³ This time frame was chosen to ensure that participants were able to report entity-based judgments (i.e., they had sufficient time to develop evaluations that reflected their fairness judgments across time and situations).



you put less effort into the job than you should?") and *physical withdrawal* (three items; e.g., "In the last month, how often did you leave work early without permission?"). Responses ranged from 1 (*very infrequently*) to 5 (*very frequently*).

Performance was assessed with Robinson's (1996) scale (two items; "How would you/your employer rate your own performance." Responses ranged from 1 (very poor) to 7 (excellent). The question stem was: "Thinking back on the last month."

Control Variables Consistent with Studies 1a and 1b, we controlled for gender.

Results

Table 3 displays the means, reliabilities, and correlations. Confirmatory factor analyses supported the distinctiveness of overall justice, acquiescent silence, and quiescent silence (see Table 2 for full results) as well as our dependent variables (see Table 4 for full results).

To test H1 and H2, we conducted hierarchical regression analysis following Aiken and West's (1991) procedures. Specifically, gender (our control variable) was entered in Step 1 and overall justice was entered in Step 2 of the regression.⁴ Results indicated that overall justice significantly predicted acquiescent silence ($\beta = -.36$, p < .01) and quiescent silence ($\beta = -.16$, p < .05, see Table 5 for full results). H1 and H2 were supported.

To test our mediation hypotheses (H3 and H4), we followed procedures from Baron and Kenny (1986). To establish mediation, three conditions must be met: (a) the predictor (overall justice) must be related to the criterion variable (e.g., emotional exhaustion, psychological withdrawal, physical withdrawal, and performance); (b) the predictor must be related to the mediator (e.g., acquiescent or quiescent silence); and (c) when the criterion variable is regressed on both the predictor and mediator variables, the mediator must be related to the criterion variable and the strength of the predictor must drop in comparison to the first condition. Full mediation occurs when the relationship between the criterion and outcome variable becomes non-significant when the mediator variable is entered into the equation; partial mediation occurs when this relationship

 $^{^4}$ We also conducted these analyses using transformations to enhance the normality of our outcome variables (cf. Cohen et al. 2003). Although the R^2 values increased, all of our general results remained the same. We present our results without these transformations to minimize problems that can arise when data transformation is used, including introducing complexities into the data and creating interpretation issues (cf. Cohen et al. 2003; Draper and Smith 1998).

Table 3 Study 2: Means, standard deviations, reliabilities, and correlations

| | М | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|-----------------------------|------|------|-------|-------|-------|-------|-------|-------|-------|-----|
| Overall justice | 4.71 | 1.44 | (.91) | | | | | | | |
| 2. Acquiescent silence | 2.73 | .87 | 36** | (.82) | | | | | | |
| 3. Quiescent silence | 3.10 | 1.02 | 16** | .64** | (.88) | | | | | |
| 4. Emotional exhaustion | 2.87 | 1.33 | 46** | .51** | .43** | (.95) | | | | |
| 5. Psychological withdrawal | 2.29 | .87 | 31** | .34** | .25** | .49** | (.76) | | | |
| 6. Physical withdrawal | 1.78 | .84 | 16** | .28** | .27** | .32** | .69** | (.87) | | |
| 7. Performance | 5.41 | 1.05 | .13* | 25** | 10 | 21** | 26** | 32** | (.75) | |
| 8. Gender | .53 | .50 | .00 | 02 | 12* | 03 | .06 | .20** | .12* | (-) |

Note Reliabilities (Cronbach's alpha) are shown on the diagonal in parentheses. Gender is coded 1 = Male, 0 = Female. N = 301-308; correlations are based on pairwise deletion

Table 4 Study 2: Confirmatory factor analyses (outcome variables)

| Item | χ^2 | p | df | CFI ^a | RMSEA ^a | χ ² Difference test ^b |
|---------------------------------|----------|----|-----|------------------|--------------------|---|
| Four-factor model ^c | 406.18 | ** | 141 | .93 | .08 | |
| Three-factor model ^d | 470.72 | ** | 144 | .92 | .09 | 64.54; $\Delta df = 3, p < .001$ |
| Two-factor model ^e | 978.00 | ** | 146 | .79 | .14 | 571.82; $\Delta df = 5, p < .001$ |
| One-factor model | 1125.99 | ** | 147 | .75 | .15 | 719.81; $\Delta df = 6, p < .001$ |

^a CFI comparative fit index (values between .90 and .95 indicate average fit, values >.95 indicate good fit), RMSEA root mean square error of approximation (smaller values indicate better fit, values should not exceed .08) (Bentler 2004; Browne and Cudeck 1993; Carmines and McIver 1981)

Table 5 Study 2: Regression analyses of overall justice predicting acquiescent and quiescent silence

| Variable | Acquiescer | nt silence | | Quiescent silence | | | | | |
|-----------------|--------------------|------------|------|--------------------|-----|-----|--|--|--|
| | b | SE | β | \overline{b} | SE | β | | | |
| Step 1 | | | | | | | | | |
| Gender | 04 | .10 | 02 | 24 | .12 | 12* | | | |
| | $R^2 = .00$ | | | $R^2 = .01$ | | | | | |
| Step 2 | | | | | | | | | |
| Gender | 03 | .10 | 02 | 23 | .12 | 12* | | | |
| Overall justice | 22 | .03 | 36** | 12 | .04 | 16* | | | |
| | $R^2 = .13$ | | | $R^2 = .04$ | | | | | |
| | $\Delta R^2 = .13$ | | | $\Delta R^2 = .03$ | 3 | | | | |

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

drops, but remains significant (Baron and Kenny 1986). We used Sobel's (1988) test (*z*) to establish the significance of the indirect effect.⁵

Results for H3 indicated that acquiescent silence partially mediated the relationship between overall justice perceptions and emotional exhaustion (H3a) and psychological withdrawal (H3b). Hypotheses 3a and 3b were supported. Results indicated that acquiescent silence fully mediated the relationship between overall justice perceptions and physical withdrawal (H3c) and performance (H3d). Given that we hypothesized partial mediation but



^{*}p < .05. **p < .01

^b We used the four-factor model as the comparison

^c This model consisted of four factors: emotional exhaustion, psychological withdrawal, physical withdrawal, and performance

^d This model consisted of three factors: emotional exhaustion, withdrawal (psychological and physical), and performance

^e This model consisted of two factors: one general factor (emotional exhaustion, psychological withdrawal, physical withdrawal) and performance

^{*}p < .05. **p < .01

⁵ We also tested the interactive effects of acquiescent and quiescent silence in predicting our outcome variables. None of the interactions approached significance. In the interests of parsimony, we focus on the main effects.

found full mediation, H3c and H3d were only partially supported (see Tables 5 and 6).

Results for H4 indicated that quiescent silence partially mediated the relationship between overall justice perceptions and emotional exhaustion (H4a), psychological withdrawal (H4b), and physical withdrawal (H4c). However, quiescent silence did not significantly mediate the relationship between overall justice perceptions and performance (H4d). H4a, H4b, and H4c were supported, whereas H4d was not supported (see Tables 5 and 6).

Discussion

In Study 2, we re-examined overall justice as a predictor of acquiescent and quiescent silence and extended our investigation to explore the mediating role of acquiescent and quiescent silence in the relationship between overall justice and employee outcomes. Several important findings emerged. First, consistent with our results from Studies 1a and 1b, overall justice was negatively related to both acquiescent and quiescent silence. These findings lend further support to our argument that fairness fulfills psychological needs that can influence employees' decisions regarding whether to engage in acquiescent or quiescent silence.

Second, both acquiescent and quiescent silence served as explanatory mechanisms between overall justice and employee outcomes (with the exception of quiescent silence and performance). This supports our general hypothesis that the consequences of employee silence can extend beyond organizational outcomes to include implications for employee well-being and performance. Taken together, when individuals perceive low levels of fairness, they may withhold information either because they believe that expressing the information is futile (acquiescent silence) or they are fearful of the consequences (quiescent silence). In turn, these forms of silence can be associated with negative consequences for employees.

Finally, an unexpected result from Study 2 was the lack of a significant relationship between quiescent silence and performance (Hypothesis 4d). In hindsight, this makes sense. Specifically, employees who are afraid of repercussions may also be reticent to reduce their performance, even when their resources have been depleted. That is, if employees engage in quiescent silence to maintain their personal safety, they may also be motivated to maintain performance levels for the same reasons. This supports the importance of examining acquiescent and quiescent silence separately because of their differential effects with

Table 6 Study 2: Mediation analyses for acquiescent and quiescent silence

| Variable | Emotional Exhaustion | | | Psychol | Psychological Withdrawal | | | Physical Withdrawal | | | Performance | | |
|----------------------|-----------------------------|-----|-------|--------------------|--------------------------|-------|--------------------|---------------------|-------|--------------------|-------------|------|--|
| | \overline{b} | SE | β | \overline{b} | SE | β | \overline{b} | SE | β | \overline{b} | SE | β | |
| Step 1 | | | | | | | | | | | | | |
| Gender | 08 | .15 | 03 | .11 | .10 | .06 | .34 | .10 | .20** | 24 | .12 | 12* | |
| | $R^2 = .0$ | 00 | | $R^2 = .0$ | $R^2 = .00$ | | | $R^2 = .04$ | | | $R^2 = .01$ | | |
| Step 2 | | | | | | | | | | | | | |
| Gender | 07 | .14 | 03 | .11 | .10 | .07 | .34 | .10 | .20** | 22 | .12 | 12 | |
| Overall justice | 43 | .05 | 46** | 19 | .03 | 31** | 10 | .03 | 16** | .10 | .04 | .14* | |
| | $R^2 = .22$ | | | $R^2 = .10$ | | | $R^2 = .07$ | | | $R^2 = .03$ | | | |
| | $\Delta R^2 =$ | .22 | | $\Delta R^2 = 1$ | .10 | | $\Delta R^2 =$ | .03 | | $\Delta R^2 =$ | .02 | | |
| Step 3 (acquiescent) | | | | | | | | | | | | | |
| Gender | 05 | .12 | 02 | .12 | .09 | .07 | .35 | .09 | .21** | 25 | .12 | 12* | |
| Overall justice | 30 | .05 | 32** | 13 | .03 | 21** | 04 | .03 | 07 | .04 | .04 | .05 | |
| Acquiescent silence | .61 | .08 | .40** | .27 | .06 | .27** | .25 | .06 | .26** | 29 | .07 | 24** | |
| | $R^2 = .3$ | 35 | | $R^2 = .1$ | 6 | | $R^2 = .$ | 12 | | $R^2 = .$ | 08 | | |
| | $\Delta R^2 =$ | .13 | | $\Delta R^2 =$ | .06 | | $\Delta R^2 =$ | .05 | | $\Delta R^2 =$ | .05 | | |
| Sobel z score | -5.29* | * | | -3.84** | * | | -3.62° | ** | | 3.61** | | | |
| Step 3 (quiescent) | | | | | | | | | | | | | |
| Gender | 04 | .13 | 02 | .16 | .09 | .09 | .39 | .09 | .23** | 26 | .12 | 13* | |
| Overall justice | 37 | .04 | 40** | 17 | .03 | 27** | 07 | .03 | 12* | .09 | .04 | .12* | |
| Quiescent silence | .48 | .06 | .36** | .18 | .05 | .21** | .23 | .05 | .28** | 10 | .06 | 10 | |
| | $R^2 = .34$ | | | $R^2 = .14$ | | | $R^2 = .14$ | | | $R^2 = .04$ | | | |
| | $\Delta R^2 =$ | .12 | | $\Delta R^2 = .04$ | | | $\Delta R^2 = .08$ | | | $\Delta R^2 = .01$ | | | |
| Sobel z score | -2.81* | * | | -2.30* | | | -2.51 | k | | 1.46 | | | |

^{*}p < .05. **p < .01



employee outcomes (cf. Pinder and Harlos 2001; Van Dyne et al. 2003). Future research should further explore the differential relationships of acquiescent and quiescent silence with other behavioral outcomes.

General Discussion

Despite being a prevalent phenomenon in organizations (Milliken et al. 2003), there are still significant gaps in our understanding of employee silence (Brinsfield et al. 2009). To refine our understanding of employee silence behavior, we explored acquiescent and quiescent silence—two types of silence that have been theorized but have received limited empirical study. The results of our studies provided empirical support for the distinction between these types of silence and the role of overall justice as an antecedent of both acquiescent and quiescent silence. Furthermore, these types of silence not only had significant implications for *employees* but also had differential effects on employee outcomes, which supports the importance of exploring both types of silence behavior. The theoretical significance of our research is threefold.

First, silence scholars are still trying to uncover the antecedents of employee silence in the workplace (Premeaux and Bedeian 2003; Van Dyne et al. 2003). Our results demonstrate that overall justice perceptions are an important antecedent for both acquiescent and quiescent silence. This suggests that organizations may prevent employee silence by managing fairness in the workplace. This, in turn, can enhance the flow of information in organizations, support organizational learning, and enable organizations to act on issues at an early stage before they turn into more serious organizational issues (cf. Edmondson 2002, 2003). This finding is also significant for the justice literature. Overall justice is a relatively new construct and few empirical studies have examined its utility as an independent variable (cf. Ambrose and Schminke 2009; Holtz and Harold 2009). Our results support the contention that overall justice can predict outcomes in a parsimonious manner. Thus, focusing on overall justice may increase the likelihood that justice can be integrated with other research domains (cf. Ambrose and Arnaud 2005; Ambrose and Schminke 2009). However, future research should carefully consider the research question being addressed when deciding how to assess justice and match the specificity of justice (i.e., specific dimensions vs. overall justice) with that of the outcome (i.e., the differential effects approach; Ambrose and Arnaud 2005; Ambrose et al. 2007).

Second, although the implications of employee silence have typically focused on organizational consequences (e.g., organizational learning; Dutton and Ashford 1993; Glauser 1984), our findings are the first to demonstrate that

acquiescent and quiescent silence can be associated with detrimental consequences for employees. Specifically, acquiescent and quiescent silence played a mediating role in the relationship between overall justice perceptions and employee outcomes. Although a significant volume of research has amassed outlining the impact of justice on employee outcomes, it is not always clear why these relationships occur. Our results suggest that employee silence (acquiescent and quiescent) can serve as an explanatory factor in these relationships. Acquiescent silence partially or fully mediated the relationships between overall justice and emotional exhaustion, withdrawal (psychological and physical), and performance. Quiescent silence also partially mediated the relationship between overall justice perceptions and these outcomes, with the exception of performance. Taken together, these findings indicate that the implications of employee silence go beyond the restriction of information flow in organizations to include significant consequences for employees. Although previous research theorized these effects (e.g., Tangirala and Ramanujam 2008), this is the first study to our knowledge that empirically tests these relationships. When combined with past research, this suggests that employee silence has the potential to impact organizations via two avenues: direct effects (i.e., limiting access to critical information; Morrison and Milliken 2000) and indirect effects (i.e., negatively impacting employees). Together, these results suggest that acquiescent and quiescent silence not only can be managed but should be managed to minimize the negative effects on employees and organizations.

Third, our study provides empirical evidence supporting the different types of employee silence (i.e., acquiescent and quiescent). Although previous research has theorized these types of silence (Pinder and Harlos 2001), few studies have empirically explored these distinctions. Additionally, our results highlight and support the value of studying silence as a multidimensional construct (Van Dyne et al. 2003). Specifically, our results indicate that there are important differences between acquiescent and quiescent silence (e.g., acquiescent silence was significantly related to performance whereas quiescent silence was not). Thus, by exploring the specific types of silence, these differential effects can be identified thereby enhancing our ability to predict and understand these behaviors. Future research should examine the specific types of silence in order to understand the nuances inherent in employees' silence behaviors.

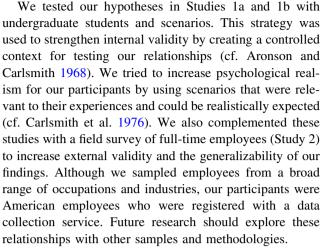
Embracing a multidimensional approach to silence research also presents a number of additional avenues for future research. For example, exploring the phenomenological experience of these types of silence may provide further insights into the differences between them. That is, whereas quiescent or fear-based silence may have deep



evolutionary and learned origins, acquiescent silence may be more closely related to the situational context at hand (e.g., whether an authority is able to act on their concerns; Kish-Gephart et al. 2009). This may have implications for the outcomes that are relevant for each type of silence, the duration of these consequences, and the theoretical mechanisms underlying these relationships.

Key differences may also emerge as a result of the type of information being withheld. In other words, different organizational issues are likely to be associated with varying levels of futility and fear. For example, employees might withhold constructive ideas (e.g., how to improve a performance appraisal system) because they believe that management will not take the time to implement such a system (i.e., acquiescent), but this constructive idea is unlikely to instill a strong sense of fear (i.e., quiescent). On the other hand, employees might be confident that their organization will address concerns of a supervisor's sexual harassment (i.e., acquiescent), but might withhold this information because they are fearful of how the supervisor will respond (i.e., quiescent). Taken together, by carefully accounting for the different motives underlying silence behavior, future research may generate further insights into when these types of silence occur as well as the differential antecedents and outcomes associated with acquiescent and quiescent silence.

This research has strengths and limitations. We examined justice perceptions as an antecedent of acquiescent/ quiescent silence using experimental (Studies 1a and 1b) and field methodologies (Study 2). In Study 2, we separated the collection of the independent and dependent variables by 1 month to help ensure that overall justice preceded silence in the workplace. The consistency of these results across samples and methodologies provides strong evidence that overall justice can act as an antecedent of employee silence. However, we are unable to make causal statements or rule out alternative explanations (e.g., other variables in the workplace may be associated with these relationships). Future research may benefit from longitudinal designs, which can enhance our understanding of the causality of these relationships as well as how these relationships change over time (cf. Ployhart and Vandenberg 2010). There may also be important moderators in these relationships including individual differences (e.g., gender and personality characteristics) and contextual factors (e.g., organizational politics and organizational/ national culture).6



We used measures from Parker et al. (2009) to assess acquiescent and quiescent silence. Although the measures demonstrated good psychometric properties and stability in their factor structures in our samples, we acknowledge the relative newness of these measures. Further studies are needed to provide additional evidence supporting the reliability and validity of these scales (cf. Nunnally 1978; Schwab 1980). Additionally, we collected all of our measures from the same source (i.e., the employee) in our studies, which can raise common method bias concerns. We followed procedures from Podsakoff et al. (2003) to minimize these concerns in our study designs. For example, in Study 2, we randomized scale items, ensured anonymity, and collected the independent and dependent variables in different time periods. However, the possibility of common method bias cannot be ruled out.

Finally, although our effect sizes were relatively modest, these findings are nonetheless relevant because they can be practically important for employees and organizations. Specifically, employee silence can be associated with important consequences that can be detrimental to employees' well-being and organizational functioning. To the extent that an organization has multiple individuals engaged in silence, it may have pervasive and severe implications for organizational functioning and performance. Furthermore, when employees withhold information from organizations it can have potentially devastating and long-lasting consequences (e.g., Challenger incident, Enron, etc.). Future research should further explore the effects of silence within groups and organizations and the cumulative effects of silence over time.

From a practical perspective, our findings demonstrate the importance of organizational fairness and employee silence in the workplace. Specifically, acquiescent and quiescent silence can have a number of negative consequences for employees and, by extension, organizations. Unfortunately, employee silence is unobservable by nature and it is difficult to evaluate the extent to which employees are



⁶ Given that previous research has shown that gender can be related to silence (e.g., Harlos 2010), we controlled for gender in our analyses. However, we also conducted post hoc analyses to explore whether gender interacted with acquiescent or quiescent silence in Study 2, but the results were not significant. Future research should continue to explore gender as a potential moderator.

withholding information and ideas in the workplace. However, our results suggest that an effective strategy to combat employee silence is to ensure that employees feel fairly treated by the organization. The justice literature provides insight into management practices and interventions that can promote and effectively manage fairness in the workplace. For example, organizations should ensure that employee rewards are justified, implement consistent and unbiased procedures, and treat employees with dignity and respect (e.g., Ambrose and Schminke 2009; Colquitt et al. 2001; Cropanzano et al. 2007). Furthermore, training managers in justice principles can enhance perceptions of fairness in the workplace, enhance employee well-being, and attenuate negative employee reactions (Greenberg 2006; Skarlicki and Latham 1996). Managing fairness effectively can help ensure that the organization receives the information it needs to function successfully while at the same time ensuring that employees are not suffering from the echoes of silence.

Appendix A: Study 1a Scenario—[High/Low Overall Justice]

You have been working at your co-op placement for about 2 months. During this time, you have made quite a few observations about how things are run at the organization and by your supervisor. With respect to the organization, you have found that employees [usually/seldom] have the ability to express their views and feelings when decisions are being made using organizational procedures. Employees are [also/also not] given the opportunity to influence the outcomes arrived at by those procedures. The organization [is careful to ensure/seems careless at ensuring] that decisions are based on accurate information and the procedures always include ways that decisions can be appealed if employees are dissatisfied or feel that something was overlooked. The organization [has never been/ has been] known to play favorites among employees and your coworkers agree that the organization's procedures have been [ethical/unethical].

During your time at the organization, you have always felt [fairly/unfairly] treated by Jamie, your direct supervisor. You feel that Jamie [has always/has never] treated you with dignity and respect. When you speak to each other, Jamie acts [professionally/unprofessionally] and [never/frequently] makes inappropriate comments. Additionally, Jamie has always seemed candid in his communications with you and when you first arrived at the organization he gave you a [thorough and reasonable/inadequate and unreasonable] explanation of your new job. Jamie [always/never] seems to give you the information that you need in a timely manner and the information is always [clear and easy to understand/unclear and confusing].

During your work-term, you have noticed considerable weaknesses in the organization's storage system. For example, there is little structure to the system and boxes are typically placed wherever there is space in the storage room. Boxes of products are sometimes placed out on the floor, but there is no system to determine which products are placed on the floor and where on the floor they are located. Just yesterday, it took you 10 min to find one product, much to the dismay of a waiting customer! You have an idea for a new storage system that could potentially remedy a number of the issues with the current system including making it easier to navigate and reducing the time it takes to find the product you need. While it would take some time and resources to officially implement this system, you believe it will lead to a number of long-term improvements. The organization will run more smoothly, and you won't have to spend so much of your day hunting down boxes and apologizing to customers!

Now you have to make a decision: Do you approach Jamie with your idea? Or do you choose to keep your idea to yourself?

Appendix B: Study 1b Scenario—[High/Low Overall Justice]

You have held a co-op placement at a local meat processing company for about 2 months. During this time, you have noticed that the organization generally treats its employees [fairly/unfairly]. For example, you have found that employees [usually/seldom] have the ability to express their views and feelings when decisions are being made. In general, decisions are [based/not based] on accurate information and procedures [always/never] include ways that decisions can be appealed if employees are dissatisfied or feel that something was overlooked. The organization [has never/has] been known to play favorites among employees and your coworkers agree that the organization generally acts [ethically/unethically]. It also seems like employees [are/are not] rewarded in a way that reflects what they contribute on the job.

During your work-term, you have always felt like the organization has acted [professionally/unprofessionally], [treating/rarely treating] you with dignity and respect. The organization [has/has not] been committed to providing you with any information that you need in a timely manner and the information is always [clear and easy to understand/unclear and confusing].

During your work-term, you have noticed that one of your coworkers, Jamie, routinely neglects the full health and safety procedures that are required by the Government Health and Safety Board. Specifically, each shipment of meat is to undergo extensive tests for cleanliness and disease. However, Jamie often tests only a small portion of



the shipment. This clearly violates the policies that must be followed before the meat is allowed to leave the processing plant. In your orientation, you were clearly told about the importance of following these health and safety procedures and how dangerous spoiled meat can be for both the organization and its customers.

You are worried that Jamie's action might result in someone getting sick or even dying from contaminated meat. Yesterday, you spoke with Jamie about your concerns during your break together. He told you that conducting full tests are a waste of his time and that he has no intention of changing his behavior.

Now you have to make a decision: Do you approach someone who can deal with this situation and address your concerns? Or do you choose to keep your concerns to yourself?

References

- Aiken, L. S., & West, S. G. (1991). Multiple regression: Testing and interpreting interactions. Newbury Park, CA: Sage.
- Akhigbe, A., Martin, A. D., & Whyte, A. M. (2005). Contagion effects of the world's largest bankruptcy: The case of World-Com. *The Quarterly Review of Economics and Finance*, 45, 48–64
- Ambrose, M. L., & Arnaud, A. (2005). Distributive and procedural justice: Construct distinctiveness, construct interdependence, and overall justice. In J. Greenberg & J. A. Colquitt (Eds.), *The* handbook of organizational justice (pp. 59–84). Mahwah, NJ: Erlbaum.
- Ambrose, M. L., Hess, R. L., & Ganesan, S. (2007). The relationship between justice and attitudes: An examination of justice effects on specific and global attitudes. *Organizational Behavior and Human Decision Processes*, 103, 21–36.
- Ambrose, M. L., & Schminke, M. (2009). The role of overall justice judgments in organizational justice research: A test of mediation. *Journal of Applied Psychology*, 94, 491–500.
- Aronson, E., & Carlsmith, J. M. (1968). Experimentation in social psychology. In G. Lindzey & E. Aronson (Eds.), *The handbook* of social psychology (pp. 1–78). Reading, MA: Addison-Wesley.
- Bakker, A. B., & Demerouti, E. (2007). The job demands-resources model: State of the art. *Journal of Managerial Psychology*, 22, 309–328.
- Bandura, A. (1986). Social foundations of thought and action. Englewood Cliffs, NJ: Prentice-Hall.
- Barclay, L. J., & Kiefer, T. (2012) Approach or avoid? Exploring overall justice and the differential effects of positive and negative emotions. *Journal of Management*. doi:10.1177/ 0149206312441833.
- Barclay, L. J., Skarlicki, D. P., & Pugh, S. D. (2005). Exploring the role of emotions in injustice perceptions and retaliation. *Journal* of Applied Psychology, 90, 629–643.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual strategic, and statistical considerations. *Journal of Personality* and Social Psychology, 51, 1173–1182.
- Baruch, Y. (1999). Response rate in academic studies: A comparative analysis. *Human Relations*, 52, 421–438.
- Bentler, P. M. (2004). *EQS: Structural equations program manual* (6th ed.). Los Angeles, CA: BMDP Statistical Software.

- Brinsfield, C. T., Edwards, M. S., & Greenberg, J. (2009). Voice and silence in organizations: Historical review and current conceptualizations. In J. Greenberg & M. S. Edwards (Eds.), *Voice and silence in organizations* (pp. 3–33). Bingley, UK: Emerald.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136–162). Beverly Hills, CA: Sage.
- Carlsmith, J. M., Ellsworth, P., & Aronson, E. (1976). *Methods of research in social psychology*. Reading, MA: Addison-Wesley.
- Carmines, E. G., & McIver, J. P. (1981). Analyzing models with unobserved variables: Analysis of covariance structures. In G.
 W. Bohrnstedt & E. F. Borgatta (Eds.), Social measurement: Current issues (pp. 65–115). Beverly Hills, CA: Sage.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). Applied multiple regression/correlation analysis for the behavioral sciences (3rd ed.). Mahwah, NJ: Erlbaum.
- Cohen-Charash, Y., & Spector, P. (2001). The role of justice in organizations: A meta-analysis. Organizational Behavior and Human Decision Processes, 86, 278–321.
- Colquitt, J. A. (2001). On the dimensionality of organizational justice: A construct validation of a measure. *Journal of Applied Psychology*, 86, 386–400.
- Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O. L. H., & Ng, K. Y. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology*, 86, 425–445.
- Colquitt, J. A., & Shaw, J. C. (2005). How should organizational justice be measured? In J. Greenberg & J. A. Colquitt (Eds.), *Handbook of organizational justice* (pp. 113–152). Mahwah, NJ: Erlbaum.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297–334.
- Cropanzano, R., Bowen, D. E., & Gilliland, S. W. (2007). The management of organizational justice. Academy of Management Perspectives, 21, 34–48.
- Cropanzano, R., & Byrne, Z. S. (2000). Workplace justice and the dilemma of organizational citizenship. In M. VanVugt, T. Tyler, & A. Biel (Eds.), Collective problems in modern society: Dilemmas and solutions (pp. 142–161). London, UK: Routledge.
- Cropanzano, R., Byrne, Z. S., Bobocel, D. R., & Rupp, D. E. (2001a). Moral virtues, fairness heuristics, social entities, and other denizens of organizational justice. *Journal of Vocational Behavior*, 58, 164–209.
- Cropanzano, R., Rupp, D. E., Mohler, C. J., & Schminke, M. (2001b). Three roads to organizational justice. In G. Ferris (Ed.), Research in personnel and human resources management (pp. 1–113). Oxford, UK: Elsevier Science.
- Cropanzano, R., & Wright, T. A. (2011). The impact of organizational justice on occupational health. In J. Campbell & L. E. Tetrick (Eds.), *Handbook of occupational health psychology* (2nd ed., pp. 205–219). Washington, DC: American Psychological Association.
- Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86, 499–512.
- Detert, J. R., & Edmondson, A. C. (2011). Implicit voice theories: Taken-for-granted rules of self-censorship at work. Academy of Management Journal, 54, 461–488.
- Draper, N. R., & Smith, H. (1998). Applied regression analysis (3rd ed.). New York: Wiley.
- Dutton, J. E., & Ashford, S. J. (1993). Selling issues to top management. Academy of Management Review, 18, 397–428.
- Edmondson, A. C. (2002). The local and variegated nature of learning in organizations: A group-level perspective. *Organization Science*, 13, 128–146.



- Edmondson, A. C. (2003). Speaking up in the operating room: How team leaders promote learning in interdisciplinary action teams. *Journal of Management Studies*, 40, 1419–1452.
- Folger, R. (1998). Fairness as a moral virtue. In M. Schminke (Ed.), Managerial ethics: Moral management of people and processes (pp. 13–34). Mahwah, NJ: Erlbaum.
- Gilboa, S., Shirom, A., Fried, Y., & Cooper, C. (2008). A metaanalysis of work demand stressors and job performance: Examining main and moderating effects. *Personnel Psychology*, 61, 227–271.
- Glauser, M. J. (1984). Upward information flow in organizations: Review and conceptual analysis. *Human Relations*, 37, 613–643.
- Gosling, S. D., Vazire, S., Srivastava, S., & John, O. P. (2004). Should we trust web-based studies? A comparative analysis of six preconceptions about internet questionnaires. *American Psychologist*, 59, 93–104.
- Greenberg, J. (1987). A taxonomy of organizational justice theories. *Academy of Management Review*, 12, 9–22.
- Greenberg, J. (2006). Losing sleep over organizational injustice: Attenuating insomniac reactions to underpayment inequity with supervisory training in interactional justice. *Journal of Applied Psychology*, 91, 58–69.
- Harlos, K. (2010). If you build a remedial voice mechanism, will they come? Determinants of voicing interpersonal mistreatment at work. *Human Relations*, 63, 311–329.
- Hinkin, T. R. (1995). A review of scale development practices in the study of organizations. *Journal of Management*, 21, 967–988.
- Hinkin, T. R. (1998). A brief tutorial on the development of measures for use in survey questionnaires. *Organizational Research Methods*, 1, 104–121.
- Hirschman, A. O. (1970). Exit, voice, and loyalty: Responses to decline in firms, organizations, and states. Cambridge, MA: Harvard University Press.
- Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. American Psychologist, 44, 513–524.
- Holtz, B. C., & Harold, C. M. (2009). Fair today, fair tomorrow? A longitudinal investigation of overall justice perceptions. *Journal of Applied Psychology*, 94, 1185–1199.
- Inbar, Y., Pizarro, D. A., & Bloom, P. (2009). Conservatives are more easily disgusted than liberals. *Cognition and Emotion*, 22, 1–12.
- Jones, D. A., & Martens, M. L. (2009). The mediating role of overall fairness and the moderating role of trust certainty in justice– criteria relationships: The formation and use of fairness heuristics in the workplace. *Journal of Organizational Behavior*, 30, 1025–1051.
- Kernan, M. C., & Hanges, P. J. (2002). Survivor reactions to reorganization: Antecedents and consequences of procedural, interpersonal, and informational justice. *Journal of Applied Psychology*, 87, 916–928.
- Kish-Gephart, J. J., Detert, J. R., Trevino, L. K., & Edmondson, A. C. (2009). Silenced by fear: The nature, sources, and consequences of fear at work. *Research in Organizational Behavior*, 29, 163–193.
- Lehman, W., & Simpson, D. (1992). Employee substance abuse and on-the-job behaviors. *Journal of Applied Psychology*, 77, 309–321.
- Leiter, M. P. (1991). Coping patterns as predictors of burnout: The function of control and escapists coping patterns. *Journal of Organizational Behavior*, 12, 123–144.
- Liao, H., & Rupp, D. E. (2005). The impact of justice climate, climate strength, and justice orientation on work outcomes: A multilevelmultifoci framework. *Journal of Applied Psychology*, 90, 242–256.
- Lind, E. A. (2001a). Fairness heuristic theory: Justice judgments as pivotal cognitions in organizational relations. In J. Greenberg & R. Cropanzano (Eds.), *Advances in organizational justice* (pp. 56–88). Stanford, CA: Stanford University Press.

- Lind, E. A. (2001b). Thinking critically about justice judgments. Journal of Vocational Behavior, 58, 220–226.
- Lind, E. A., & Tyler, T. (1988). *The social psychology of procedural justice*. New York: Plenum.
- Maslach, C., & Jackson, S. E. (1982). Maslach burnout inventory manual (2nd ed.). Palo Alto, CA: Consulting Psychologists Press.
- Milliken, F. J., Morrison, E. W., & Hewlin, P. (2003). An exploratory study of employee silence: Issues that employees don't communicate upward and why. *Journal of Management Studies*, 40, 1454–1476
- Morrison, E. W., & Milliken, F. J. (2000). Organizational silence: A barrier to change and development in a pluralistic world. *The Academy of Management Review*, 25, 706–725.
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). New York: McGraw-Hill
- Parker, L. E. (1993). When to fix it and when to leave: The relationship among perceived control, self-efficacy, dissent and exit. *Journal of Applied Psychology*, 78, 949–959.
- Parker, S. K., Bindl, U. K., Van Dyne, L., & Wong, S. F. (2009). Measuring motives for silence. Paper presented at the annual meeting of the Academy of Management, Chicago, IL.
- Pennebaker, J. W., & Beall, S. K. (1986). Confronting a traumatic event: Toward an understanding of inhibition and disease. *Journal of Abnormal Psychology*, 95, 274–281.
- Pinder, C. C., & Harlos, K. P. (2001). Employee silence: Quiescence and acquiescence as responses to perceived injustice. In G. R. Ferris (Ed.), Research in personnel and human resources management (Vol. 20, pp. 331–368). Greenwich, CT: JAI Press.
- Ployhart, R. E., & Vandenberg, R. J. (2010). Longitudinal research: The theory, design, and analysis of change. *Journal of Management*, 36, 94–120.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879–903.
- Premeaux, S. F. (2003). The link between management behavior and ethical philosophy in the wake of the Enron convictions. *Journal of Business Ethics*, 85, 13–25.
- Premeaux, S. F., & Bedeian, A. G. (2003). Breaking the silence: The moderating effects of self-monitoring in predicting speaking up in the workplace. *Journal of Management Studies*, 40, 1537–1562.
- Rachman, S. (1990). Fear and courage. Gordonsville, VA: Freeman. Robinson, S. L. (1996). Trust and breach of the psychological contract. Administrative Science Quarterly, 41, 574–599.
- Rupp, D. E. (2011). An employee-centered model of organizational justice and social responsibility. *Organizational Psychology Review*, 1, 72–94.
- Rupp, D. E., & Cropanzano, R. (2002). The mediating effects of social exchange relationships in predicting workplace outcomes from multifoci organizational justice. *Organizational Behavior* and Human Decision Processes, 89, 925–946.
- Schwab, D. P. (1980). Construct validity in organizational behavior. In B. M. Staw & L. L. Cummings (Eds.), Research in organizational behavior (Vol. 2, pp. 3–43). Greenwich, CT: JAI Press.
- Seligman, M. E. P. (1975). *Helplessness*. San Francisco, CA: Freeman.
- Skarlicki, D. P., & Latham, G. (1996). Increasing citizenship behavior within a labor union: A test of organizational justice theory. *Journal of Applied Psychology*, 81, 161–169.
- Sobel, M. E. (1988). Direct and indirect effect in linear structure equation models. In J. S. Long (Ed.), Common problems/proper solutions: Avoiding error in quantitative research (pp. 46–64). Beverly Hills, CA: Sage.



D. B. Whiteside, L. J. Barclay

- Swimberghe, K. R., Sharma, D., & Flurry, L. W. (2011). Does a consumer's religion really matter in the buyer-seller dyad? An empirical study examining the relationship between consumer religious commitment, Christian conservatism and the ethical judgment of a seller's controversial business decision. *Journal of Business Ethics*, 102, 581-598.
- Tangirala, S., & Ramanujam, R. (2008). Employee silence on critical work issues: The cross level effects of procedural justice climate. *Personnel Psychology*, *61*, 37–68.
- Thibault, J., & Walker, L. (1975). *Procedural justice: A psychological analysis*. Hillsdale, NJ: Erlbaum.
- Tornblom, K. Y., & Vermunt, R. (1999). An integrative perspective on social justice: Distributive and procedural fairness evaluations of positive and negative outcome allocations. *Social Justice Research*, 12, 39–64.

- Van Dyne, L., Ang, S., & Botero, I. C. (2003). Conceptualizing employee silence as multidimensional constructs. *Journal of Management Studies*, 40, 1359–1392.
- Vaughan, D. (1998). Rational choice, situated action, and the social control of organizations: The challenger launch decision. *Law and Society Review*, 32, 23–61.
- Visser, R. A. (1982). Analysis of longitudinal data in behavioral and social research: An exploratory survey. Leiden, Netherlands: DSWO Press.
- Wright, T. A., & Cropanzano, R. (1998). Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology*, 83, 486–493.

