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A Multi-Level Study on Employee Voice: Evidence from a Chain of Retail Stores

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Abstract The objective of this research is to examine the joint influence of both organizational characteristics and individual personality on employee voice. Employing a multi-level design, data from a chain of retail stores were collected for hypothesis testing. A total of 267 employees from 59 stores participated in this study. The results offered support for the individual-level relationships among proactive personality, voice behavior, and individual creative performance. At the store-level, both transformational leadership and supportive peer relations exerted significant effects on voice climate, but not on store performance. In addition, negative cross-level interaction between transformational leadership and proactive personality was found for voice behavior. Lastly, implications for managerial theory and practice are discussed.

Keywords employee voice, proactive personality, transformational leadership, supportive peer relations, multi-level analysis

1 Introduction

With the rapid changes in technology and business environments, it has become a widely held belief that employees are invaluable assets of organizations, not only for their physical labor, but also for their innovative ideas. Employee suggestions

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are critical to firms because it is the people within the organizations that create variety in the pool of strategic ideas. Without articulation of new ideas, it is difficult to transform creative ideas into innovative procedures, methods, and products. Despite its desirability in the workplace, employees often feel uncomfortable about openly expressing themselves on organizational issues (Dutton, Ashford, O'Neill, Hayes and Wierba, 1997; Milliken, Morrison and Hewlin, 2003). This is particularly true for Chinese firms. China has a long tradition of high power distance culture. In general, the overall social order is built on individual loyalty and obedience to higher authority (Bond and Hwang, 1987). Speaking up about work issues is viewed as a threat to organizational harmony and a challenge to leaders' authority. A recent survey based on 73 companies in Zhejiang found that only 26.8 percent of the firms instituted employee participation system. Around 57.7 percent of the employees reported they did not speak up frequently, and around 28.1 percent of the employees did not make any suggestions at all (Xie and Yang, 2006). Consistent with such findings, how to motivate employee voice and participation was listed as an important task in strategic human resource management for Chinese firms (Lin, 2004). Therefore, an empirical investigation targeting at the creation of favorable organizational environment for employee voice and creativity is both theoretically and practically important.

The involvement of personal risk makes employees feel ambivalent towards voice in many situations. It has been recognized as difficult for researchers to predict (Van Dyne, Ang and Botero, 2003). Much voice research has been conducted in the Western context, and the discussion in the Chinese context is still very limited. Drawing on a sample of retail stores, this study employed a multi-level model to examine the joint effect of contextual factors and individual factors on employee voice. Considering its proactive and interpersonal nature, we included proactive personality as the individual-level predictor, and both transformational leadership and supportive peer relations the group-level predictors. Consistent with this framework, we included store performance and creative performance as the group and the individual-level outcomes of employee voice. Our research framework is expected to not only adequately capture the joint effect of the key personality trait and important interpersonal relationships within the workplace, but also facilitate the discussion of creating a favorable environment for constructive suggestions.

2 Literature Review and Hypothesis Development

2.1 The Conceptualization of Employee Voice

As a type of change-oriented organizational citizenship behavior, Van Dyne et al.

(2003) specified voice as expressing work-related ideas and opinions with a cooperative motive. Based on this definition, Liang and Farh (2008) further proposed a two-dimensional structure of voice behavior: promotive voice and prohibitive voice. The first group of voice consists of attempts to propose new ideas/opinions for improving the overall functioning of the work unit or organization. The second group of behavior describes speaking up about dysfunctional aspects of work practices (e.g., harmful behavior, outdated procedures, rules, or policies). Prohibitive voice can prevent the negative effects of process losses (i.e., factors that decrease or inhibit the units' productivity). Therefore, both forms of voice are constructive and helpful to an organization.

Voice is not only an individual-level phenomenon, but also a group-level attribute. In the literature, voice is frequently defined at the individual level. However, Morrison and Milliken (2000) extended this concept to the organization/group level. They called for the examination of employee voice as a collective attribute, rather than only a type of personal behavior (Morrison and Milliken, 2000). In this study, we used *voice behavior* to capture whether individual employees speak up or not about their constructive suggestion. It is conceptually related to individuals' personality traits and working attitudes. At the same time, we employed *voice climate* to conceptualize the degree to which employees within the unit speak up about work-related issues as a whole. Different from voice behavior, it refers to a group-level attribute and is closely related to contextual characteristics, but not individual factors. Their differences in the conceptualization and antecedent variables lay the foundations for our multi-level research framework.

2.2 The Individual-Level Relationship—Proactive Personality

Proactive personality is defined as a disposition towards taking personal initiative to influence one's environment (Bateman and Crant, 1993). Individuals with a prototypical proactive personality "identify opportunities and act on them, show initiative, take action, and persevere until meaningful change occurs" (Crant, 2000). Parker (1998) found that proactive personality was positively and significantly associated with individuals' participation in organizational improvement initiatives. They initiate useful interpersonal contacts that provide valuable information or that position them to be more effective (Thompson, 2005).

Voice behavior requires individuals to actively allocate cognitive resources and take initiatives to express their ideas/opinions interpersonally (to their supervisor in particular). This is a type of communication-based and change-oriented personal initiative. Speaking up with constructive suggestions is recognized as a necessary step to transform creative ideas into actual performance. As LePine

and Van Dyne (1998) pointed out: "Innovation begins with recognition and generation of novel ideas or solutions that challenge past practices and standard operating procedures." Taken together, we hypothesize that proactive employees are likely to speak up with their suggestions/concerns to initiate constructive changes within the organization, even though those efforts are not necessarily within their formal responsibilities. Those constructive efforts will be finally recognized by the management and peer colleagues as creative performance.

H1 Proactive personality is positively related to voice behavior.

H2 Voice behavior mediates the relationship between proactive personality and creative performance.

2.3 The Group-Level Relationships

As we pointed out, employees tend to feel ambivalent about voice mainly because of its challenging nature. Researchers have concluded that most of employee concerns are related to management style and interpersonal risk (Dutton et al., 1997; Milliken et al., 2003). Therefore, a favorable environment for employee voice should include the support of management and harmonious peer relations. When employees believe their suggestions are useful for the management and may be labeled as troublemakers, a rational choice for them is to keep silence, rather than speak up. Thus, this study includes two related variables: transformational leadership and supportive peer relations.

2.3.1 Transformational Leadership

Leadership style is a key determinant to explain whether employees are willing to voice out or not. If a manager does not trust their followers' capability and motivation, she/he is less likely to allow different opinions. Consequently, the followers would reach consensus that different opinions are not tolerated and they cannot influence their leader's decision (Morrison and Milliken, 2000). Different from such control-oriented leaders, transformational leaders are change-focused. Their styles commonly include articulating an inspiring vision of the future, role-modeling, fostering acceptance of group goals, demonstrating high performance expectations, providing socio-emotional support, and stimulating subordinates to rethink how work can be performed best (Bass, 1985; Podsakoff, McKenzie, Moorman and Fetter, 1990).

Transformational leaders focus on changing the status quo, both the organizational status as well as individuals within the organization. They motivate followers to fulfill a larger collective vision without expecting immediate personal and tangible gains (Podsakoff et al., 1990). To mobilize followers' commitment to higher goals, they delegate responsibility and authority

to followers so that they can accomplish those goals in a relative autonomous manner. Employees tend to believe that they are contributing to a higher and collective (organization) cause and come to view organizational success and failures as their personal success and failures (Kark, Shamir and Chen, 2003). Thus, the empowered employees become open to the new vision of the organization, which implies forward-looking drive and the need for new achievements. They are motivated to question the status quo, and actively explore new ways to develop the organization and accomplish its mission (Bass, 1985). As a result, even openly stating individual ideas/concerns may carry personal risks, employees are more likely to engage in it, because they believe that their ideas/concerns are beneficial for the organization to realize its vision. In conclusion, we hypothesize transformational leadership can facilitate employees' involvement and participation in organizational affairs.

H3 Transformational leadership is positively related to voice climate.

2.3.2 Supportive Peer Relations

Because of the amount of time and the intensity of collaboration, peer relations are one of the most central relationships in employee life. In order to motivate employees to express their suggestions/concerns, they must believe that their input is explicitly needed and desired by other members. Supportive peer relations refer to the close, positive, and amiable interpersonal ties between the focal employee and his/her coworkers (Bacharach, Bamberger, and Vashdi, 2005). It is grounded on a sense of intimacy and trust, the sharing of thoughts and feelings, and the sense that one is able to seek helps from the other. Members having such interpersonal ties may have strong motivations to be helpful and cooperative in the unit (Granovetter, 1982). They are more likely to talk about the task, express feelings and ideas, and freely exchange task-related thoughts (Jehn and Shah, 1997). Without supportive interpersonal context, the anticipation of social pressure often makes employees avoid expressing their suggestions/concerns towards public issues.

The existing literature has provided empirical evidence for the connection between supportive peer relations and employee voice. For example, the research on issue selling suggested that when middle managers perceive a supportive climate within the organization, they are likely to sell their ideas (Ashford, Rothbard, Piderit and Dutton, 1998). The high quality of team-member exchange encouraged individuals to actively engage in innovative behaviors (Scott and Bruce, 1994). Given those theoretical and empirical supports, we expect that the contact and trust within a unit would motivate employees actively express their work-related suggestions/concerns and increase voice climate within the unit.

H4 Supportive peer relations are positively related to voice climate.

2.3.3 Group Performance

According to the information processing perspective, a broader range of views and opinions will bring lots of benefits to a group (Williams and O'Reilly, 1998). Voice climate within a group can help its members articulate their new ideas, and transform creative ideas into useful procedures, methods, and products finally. Previous qualitative analyses conducted by Edmondson (1999) showed employee voice within a team facilitates team learning and enables successful implementation of new practices, whereas reluctance to speak up inhibits the implementation of new technology. Therefore, we propose the mediating role of voice climate between transformational leadership, supportive peer relations, and group performance.

H5 Voice climate mediates the relationship between transformational leadership, supportive peer relations and group performance.

2.4 Cross-Level Relationships

In addition to the main effects, there is a theoretical reason to examine the cross-level interactions between contextual variables and individual attribute. Mischel (1977) pointed out the distinctions between strong and weak situations of organizational contexts: In strong situations, expectations concerning desirable behavior are relatively uniform and unambiguous. Each individual has her/his specified goals, and considerable knowledge to achieve desirable outcomes within the organization. In contrast, weak situations are ambiguous and less structured. Individuals do not have clear external social or structural cues to guide their behavior. The situational strength arguments suggest that the contextual variables may play moderating roles in the relationship between proactive personality and voice behavior.

In a positive context, the management can create a general voice-promoting atmosphere through the commitment to encourage such behaviors. Transformational leadership sets clear behavioral models and inspires constructive ways to achieve the new vision of the organization; and supportive peer relations enhance a mutual trusting environment and encourage employees to present their ideas/concerns honestly. Therefore, the existence of favorable contexts send clear signals to employees that voice behaviors and personal initiatives are expected, desired, supported, and encouraged. Without these behavioral cues, employees only rely on their predisposition to direct their actions. As a result, these contextual factors will constrain the effect of proactive personality on voice behavior, thereby exhibiting negative moderating roles. Such person-situation interactions were examined in LePine and Van Dyne's (2001) study. They found a negative moderating effect of management style (i.e.,

self vs. traditional management in teams) on the relationship between general self-esteem and voice. Therefore, we propose the following moderating hypothesis:

H6 Transformational leadership and supportive peer relations negatively moderate the relationship between proactive personality and voice behavior such that this relationship is stronger where the contextual variables are low than where they are high.

As a group attribute, voice climate within a group can shape individual members by influencing how they think and feel about certain aspects of their environment (Salancik and Pfeffer, 1978). According to the group value model (Tyler and Lind, 1992), if a high-level voice climate exists within a group, employees tend to believe that they are valued members at work. Compared with the feeling of helpless resulting from being unable to speaking up about suggestions and concerns, the open dialogue can increase members' confidence and commitment to working-related issues. In such a group, individual members are more likely to communicate their ideas freely with each other, perceive as important constructive changes, come up with creative ideas and find ways to implement them. Therefore, we have the following hypothesis:

H7 Voice climate is positively related to individual creative performance.

3 Research Method

3.1 Participants and Procedures

Our participants were from a Chinese retailing company headquartered in Shenzhen. 67 retail stores throughout China were involved in the data collection. This sample has two advantages for testing the hypotheses. First, sample stores come from the same retailing company, so they share the same organizational culture and similar external environments in the service industry. Therefore, we automatically control high-level variables into constant by the current sample. Second, sample stores are distributed in ten provinces of China. Each store is encouraged to maintain their individuality and empowered to make decisions concerning everyday management matters. They are different from each other in terms of their strategic importance for the company. Therefore, it is likely to obtain a great deal of variations among those stores with respect to the constructs in the study.

Each survey package contains five copies of subordinate questionnaire, one of store director questionnaires, and returned envelopes. The HR managers were instructed to pass the questionnaire to the store directors, and ask them to nominate five subordinates in the data collection and provide data on their

behavioral performance. The five nominated employees were then asked to provide data on their dispositions and perceptions about the collective work phenomena within the store. This data collection procedure was designed to avoid common method variance by obtaining data on the independent and dependent variables from different sources. The complete confidentiality of completed surveys was guaranteed to all respondents.

A total of 335 subordinate questionnaires and 67 director questionnaires were sent from the headquarter. After deleting the unmatched cases, 267 useful questionnaires were obtained from 59 stores, representing a response rate of 79.7 percent. The demographics of the participants were as follows: age (between 21 to 30 years, 64.7%; between 31 and 40 years, 33.8%; between 41 to 50 years, 1.5%), gender (74.5% male, 25.5% female), education (16.0% middle school, 73.3% professional schools, 10.7% universities). Most of the participants (85%) have worked in the company for more than two years. The store size ranged from 60 to 305 employees with a mean of 175.92 (S.D. = 55.37).

3.2 Measures

Five-point Likert-type scales were used for all of the substantive variables included in this study. All the English items were translated into Chinese following the translation and back-translation procedures.

Voice behavior. We used a ten-item scale developed by Liang and Farh (2008) to measure individual voice behavior. Sample items like “Develop and make suggestions for issues that may influence the group” (promotive voice), and “Voice out opinions on things that might affect efficiency in the work unit, even if that would embarrass others” (prohibitive voice). We conducted a CFA to test whether the two-factor model plus an overall second-order factor fitted the data. Results showed that the fit indexes well within an acceptable range ($\chi^2 = 109.33$, d.f. = 33, RMSEA = 0.09, RMR = 0.048, CFI = 0.95, NNFI = 0.93). Its Cronbach’s α was 0.93 in this study.

Voice climate. Different from individual voice behavior, which was rated by the supervisors, the measures of voice climate were provided by subordinates. Based on the referent shift model (Chan, 1998), we modified the referent of the voice items from “individual employee” to “the members of the store.” Accordingly, this store-level construct was aggregated from individual scores and refers to a collective work phenomenon about employee voice.

Proactive personality. Individual difference on proactivity was measured using a 10-item shortened version of Bateman and Crant’s (1993) scale. A sample item likes “Nothing is more exciting than seeing my ideas turn into reality.” Its Cronbach’s α was 0.80.

Transformational leadership. We used the 22 items developed by Podsakoff et

al. (1990) to measure subordinates' perceptions of their directors' behavior. It includes six sub-scales, including fostering collaboration, high performance expectations, role modeling, intellectual stimulation, vision, and individualized support. A sample item likes "My supervisor inspires others with his/her plans for the future." We performed a CFA to test whether the six-factor model plus an overall second-order factor fitted the data. The results showed that the fit indexes well within an acceptable range ($\chi^2 = 518.02$, d.f. = 203, RMSEA = 0.077, RMR = 0.025, CFI = 0.93, NNFI = 0.92), suggesting that the model fitted the data reasonably well. Its Cronbach's α was 0.96.

Supportive peer relations. We developed six items from previous studies (Bacharach et al., 2005; Fried and Tiegs, 1993). Respondents were asked to indicate the extent to which they could count on their coworkers to provide both emotional and instrumental support. Sample items like 'When things get tough at work, my colleagues listen, show understanding or show that they care each other'. The Cronbach's α for this scale was 0.76.

Creative performance. Stores directors provided ratings on the extent to which each subordinates produced work that was novel and useful to the organization. Three items developed by Oldham and Cummings (1996) were used. Sample items like "How adaptive and practical is this person's work? Adaptive and practical work refers to using existing information or materials to develop ideas, methods, or products that are useful to the organization." Cronbach's α in this study was 0.76.

Store performance. Two senior managers from the Headquarter made their independent judgments over the 59 stores regarding their overall performance. The five-item scale developed by Kirkman and Rosen (1999) was used. A sample item likes "This store meets or exceeds its goals." Inter-rater reliability was .89 for the two senior managers.

Control variables. Job satisfaction was measured to eliminate the effect of working attitude on voice. Three items from Hackman and Oldham (1980) were used, including "Generally speaking, I am very satisfied with my job," etc. Its reliability alpha was 0.74. In addition, we added three demographic variables as controls: formal education, time in the firm and organizational rank. The three variables might influence the degree of familiarity with the organization, resulting in possible different levels of voice.

3.3 Analysis Strategies

The proposed model is multilevel in nature, consisting of constructs spanning both the individual-level and store-level of analyses. Therefore, we conducted Hierarchical Linear Modeling (HLM) analyses to examine the hypotheses. HLM can account for the potential non-independence of the observations. We

examined the mediating hypotheses following the statistical steps proposed by Baron and Kenny (1986). When examining the cross-level moderating hypotheses, we grand-mean centered Level-1 predictors. This centering approach lessened multicollinearity in Level-2 estimation by reducing the correlation between Level-2 intercept and slope estimates (Hofmann and Gavin, 1998).

In testing cross-level models, both significant within and between-store variances must exist for the dependent variables. Thus, we first estimated two null models for voice behavior and creative performance in which no predictors are specified for either the Level 1 or 2 functions. The model likes Equation 1:

$$voice = \gamma_{00} + u_0 + r.$$

After computing the null model, we estimated the percentage of variance explained by the Level 2 or store-level predictors, and further tested Hypothesis 1 and 2 using the Models like Equation 2:

$$voice = \gamma_{00} + \gamma_{10} * education + \gamma_{20} * position + \gamma_{30} * tenure + \gamma_{40} * satisfaction + \gamma_{50} * personality + u_0 + r.$$

In Equation 2, a significant γ_5 suggests the hypothesis about the main effect receives support. Because both H6 and H7 involve cross-level relationships, we followed models like Equation 3 to conduct hypotheses testing:

$$voice = \gamma_{00} + \gamma_{01} * leadership + \gamma_{02} * peer + \gamma_{10} * education + \gamma_{20} * position + \gamma_{30} * tenure + \gamma_{40} * satisfaction + \gamma_{50} * personality + \gamma_{51} * leadership * personality + \gamma_{52} * peer * personality + u_0 + r.$$

In Equation3, both γ_{01} and γ_{02} show the main effect of store-level predictors on individual voice behavior, while both γ_{51} and γ_{52} are used to estimate the cross-level interaction effect. If they are statistically significant, we can conclude the hypotheses receive support from our data.

4 Results

4.1 Aggregation Statistics

In this study, we measured three store-level variables from individual perceptions: voice climate, transformational leadership, and supportive peer relations. To support the aggregation of store-level variables, we examined three aggregation statistics: inter-rater agreement ($R_{wg(j)}$, James, Demaree and Wolf, 1984) and two inter-rater reliability indices (intra-class correlations, ICC for short) (James, 1982). The results suggested that the mean $R_{wg(j)}$ are 0.89 for transformational leadership, 0.89 for peer relations, and 0.85 for voice climate, indicating a high level agreement among our respondents within each retail store. We then

conducted one-way analyses of variance and obtained the following ICC1 and ICC2 values: for voice climate, ICC1 value is 0.10, ICC2 value is 0.32, $F_{(55,197)} = 1.49$, $p < 0.05$; for transformation leadership, ICC1 value is 0.15, ICC2 value is 0.44, $F_{(58,205)} = 1.80$, $p < 0.01$; for supportive peer relations, ICC1 value is 0.14, ICC2 value is 0.43, $F_{(58,205)} = 1.75$. Among the three values, all the ICC1 values are close to or higher than the expected value of 0.12, and the F tests also suggested there are significant differences across the stores. The relatively low ICC2 values suggest low consistency rather than low consensus among group members' ratings (Kozlowski and Hattrup, 1992). Considering the homogenous experience within the store leads to a shared view of the environment (e.g., leadership style, peer relations and voice climate within the store), we aggregated the individual perceptions into store-level measures.

4.2 Descriptive Statistics

The means, standard deviations and correlations among variables are shown in Table 1. For the three store-level variables, the store means were assigned back to individual members. As shown in Table 1, the zero-order correlation between voice behavior and voice climate is 0.12 ($p < 0.05$); proactive personality correlates with voice behavior at 0.22 ($p < 0.01$), yet it has not a significant correlation with voice climate. At the store-level, both transformational leadership and support peer relations significantly correlate with voice climate (0.42, $p < 0.01$; 0.34, $p < 0.01$), and the correlations are higher than their relationships with voice behavior (0.14, $p < 0.05$; 0.22, $p < 0.01$). Therefore, voice behavior is different from voice climate conceptually and empirically.

4.3 Hypothesis Testing

Null model. Before hypotheses testing, we estimated null models involving voice behavior and creative performance, in which no predictors were specified for either Level 1 or 2 functions to test the significance level of the Level 2 residual variance of the intercept. The results are presented in Model 1 and Model 5 (M5) of Table 2. M1 suggests that for voice behavior, the within-store variance component is 0.36 and the between-store variance component is 0.35. The ICC1 associated with voice behavior is 0.59, reflecting the percentage of variance that resides between stores are 59 percent. For creative performance, M5 suggests the within-store variance component is 0.38 and the between-store variance component is 0.31. The ICC1 associated with voice behavior is 0.45, reflecting the percentage of variance that resides between stores is 45 percent. Taken together, the results suggest that we can examine store-level predictors as well as individual-level predictors of the two variables.

Table 1 Means, Standard Deviations, Coefficient Alphas, and Inter-Correlations among Variables in the Present Study

| | Mean | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--------------------------------|-------|-------|--------|--------|-------|--------|--------|---------|-------|-------|---------|------|
| 1. Voice behavior | 3.01 | 0.78 | 0.92 | | | | | | | | | |
| 2. Creative performance | 3.07 | 0.84 | 0.58** | 0.86 | | | | | | | | |
| 3. Store performance | 3.51 | 0.59 | 0.01 | 0.07 | – | | | | | | | |
| 4. Proactive personality | 3.62 | 0.43 | 0.22** | 0.21** | –0.05 | 0.79 | | | | | | |
| 5. Transformational leadership | 3.90 | 0.52 | 0.14* | 0.11 | 0.14* | 0.25** | 0.96 | | | | | |
| 6. Supportive peer relations | 3.76 | 0.50 | 0.22** | 0.17** | 0.05 | 0.26** | 0.51** | 0.76 | | | | |
| 7. Voice climate | 3.65 | 0.63 | 0.12* | 0.20** | –0.09 | 0.09 | 0.42** | 0.34** | 0.93 | | | |
| 8. Job satisfaction | 3.83 | 0.60 | 0.21** | 0.11 | 0.13* | 0.16** | 0.37** | 0.39** | 0.15* | 0.74 | | |
| 9. Education | 1.94 | 0.52 | 0.01 | –0.04 | 0.01 | –0.03 | –0.09 | –0.19** | –0.09 | –0.04 | – | |
| 10. Position | 2.31 | 0.57 | 0.15* | 0.15* | –0.01 | 0.03 | 0.09 | 0.02 | 0.09 | 0.14* | 0.05 | – |
| 11. Tenure | 54.44 | 23.25 | –0.01 | 0.00 | –0.02 | 0.02 | 0.07 | –0.08 | 0.01 | 0.08 | –0.18** | 0.07 |

Note: No. of employee = 267, No. of store = 59. For store-level variables, store mean was assigned to members of the same store to calculate the individual-level correlations. Thus, the correlations and significance tests associated with these variables should be interpreted with caution. Tenure was counted by months.

† indicates significant at 0.10 level, * indicates significant at 0.05 level, ** indicates significant at 0.01 level (two-tailed).

Table 2 Results of Random Coefficient Modeling Analyses with Voice Behavior and Creative Performance

| | Voice behavior | | | | | | | | Creative performance | | | |
|---|----------------|---------------|--------------|---------------|---------------|---------------|---------------|--------------|----------------------|----|---------|--------------|
| | M1 | M2 (H1) | M3 | M4 (H6) | M5 | M6 | M7 (H2) | M8 (H7) | M5 | M6 | M7 (H2) | M8 (H7) |
| Individual level | | | | | | | | | | | | |
| Intercept (γ_{00}) | 3.01** (0.08) | 2.36** (0.23) | -1.06 (1.13) | -1.12 (1.11) | 3.07** (0.08) | 2.53 (0.27) | 1.16** (0.29) | 0.64 (0.89) | | | | |
| Education (γ_{10}) | | 0.13† (0.07) | 0.13* (0.07) | 0.13* (0.06) | | 0.09 (0.08) | 0.01 (0.07) | 0.10 (0.08) | | | | |
| Position (γ_{20}) | | 0.15* (0.06) | 0.15* (0.06) | 0.16** (0.06) | | 0.17 (0.08) | 0.09 (0.07) | 0.17* (0.08) | | | | |
| Tenure (γ_{30}) | | 0.01 (0.00) | 0.00 (0.00) | 0.00 (0.00) | | 0.00 (0.00) | 0.00 (0.00) | 0.00 (0.00) | | | | |
| Satisfaction (γ_{40}) | | 0.10† (0.06) | 0.08 (0.06) | 0.08 (0.06) | | -0.01 (0.07) | -0.07 (0.06) | -0.01 (0.07) | | | | |
| Proactive personality (γ_{50}) | | 0.18* (0.08) | 0.16* (0.08) | 3.62** (1.34) | | 0.27* (0.10) | 0.13 (0.09) | 0.22* (0.10) | | | | |
| Voice behavior (γ_{60}) | | | | | | | 0.58* (0.06) | | | | | |
| Store level | | | | | | | | | | | | |
| Transformational leadership (γ_{01}) | | | | -0.14 (0.32) | | -0.10 (0.32) | | | | | | |
| Peer relations (γ_{02}) | | | | 1.05** (0.34) | | 1.05** (0.33) | | | | | | |
| Voice climate (γ_{03}) | | | | | | | | | | | | 0.51* (0.23) |
| Cross-level | | | | | | | | | | | | |
| Personality \times Leadership (γ_{51}) | | | | -0.84* (0.43) | | | | | | | | |
| Personality \times Peers (γ_{52}) | | | | -0.04 (0.44) | | | | | | | | |
| Within-store variance explained | | 0.08 | | | | 0.03 | 0.21 | | | | | |
| Between-store variance explained | | | 0.22 | | | | | | | | | 0.18 |
| Model deviance | 501.6 | 506.14 | 495.18 | 484.01 | 589.38 | 599.95 | 533.69 | 598.47 | | | | |

Note: No. of employee = 267, No. of store = 59. Gamma coefficients are reported in the RCM analysis, and the corresponding standard errors are reported in the parentheses. † indicates significant at 0.10 level, * indicates significant at 0.05 level, ** indicates significant at 0.01 level (two-tailed).

Individual-level tests. H1 predicts that proactive personality is associated with voice behavior. We estimated a Level 1 model including individual personality, demographics and job satisfaction, but no predictors specified for the Level 2 model. The results are presented in Model 2 (M2) of Table 2. As a block, the individual-level variables explained 8 percent of the within-store variance. Specifically, proactive personality ($\gamma = 0.18, p < 0.05$) and organizational rank ($\gamma = 0.15, p < 0.01$) have significantly positive relationships with voice behavior. Therefore, H1 is supported.

H2 further proposes that voice behavior mediates the relationship between proactive personality and creative performance. We tested this hypothesis following the steps advanced by Baron and Kenny (1986): (1) Establishing the relationship between the independent variable (e.g., proactive personality) and the mediator (e.g., voice behavior); (2) establishing the relationship between the independent variable and the dependent variable (e.g., creative performance); (3) entering the independent variable and the mediator together, and examining whether the effect of independent variable on the dependent variable is not significant and the effect of the mediator is not. The first condition is established in H1. In Table 2, Model 6 (M6) suggests that proactive personality has a direct effect on creative performance ($\gamma_{50} = 0.27, p < 0.05$), and Model 7 (M7) shows that while considering the effect of proactive personality and voice behavior together, the effect of voice behavior on creative performance is still significant ($\gamma_{60} = 0.58, p < 0.05$), but not proactive personality. Therefore, H2 receives support.

Store-level tests. H3 and H4 propose the positive effects of transformational leadership and supportive peer relationship on voice climate. Because the two hypotheses are made at the store level, we employed hierarchical regression analyses in hypotheses testing. The results are presented in Table 3. Model 9 (M9) suggests that transformational leadership has a direct effect on voice climate ($\beta = 0.43, p < 0.01$), while supportive peer relations has no such effects. Regarding the control variables, store size is negatively related to voice climate; compared with the stores in Shenzhen, stores in the Middle China have a higher score on voice climate. Taken together, H3 receives support, but not H4.

Consistent with the statistical steps in testing H2, we examined the effects of transformational leadership, supportive peer relations, and voice climate on store performance in Model 12 (M12). The results show that there is a positive relationship between store size and store performance ($\beta = 0.39, p < 0.01$), stores in Shenzhen performed poorer than others in the Pearl River Delta, but better than stores in other areas. Because no significant relationships existed between the three hypothesized variables (e.g., transformational leadership, supportive peer relations, and voice climate) and store performance, H5 is thus not supported.

Table 3 Hierarchical Regression Results for Store Performance

| | Voice climate | | Store performance | |
|---|---------------|--------|-------------------|----------|
| | M9 (H3–H4) | M11 | M12 | M13 (H5) |
| Controls | | | | |
| Store size | −0.32** | 0.44** | 0.42** | 0.39** |
| Pearl River Delta (without Shenzhen) | −0.08 | −0.44* | −0.55* | −0.52* |
| Middle China | 0.38* | 0.22 | 0.14 | 0.14 |
| Other areas | −0.14 | 0.36* | 0.36* | 0.35* |
| Main Effects | | | | |
| Transformational leadership | 0.43** | | 0.21 | 0.24† |
| Supportive peer relations | 0.08 | | 0.04 | 0.04 |
| Voice climate | | | | −0.08 |
| R² | 0.63 | 0.40 | 0.44 | 0.45 |
| D.F. | 6,52 | 4,52 | 6,50 | 7,49 |
| F Value | 9.78** | 8.53** | 6.62** | 5.63** |

Note: † indicates significant at 0.10 level, * indicates significant at 0.05 level, ** indicates significant at 0.01 level (two-tailed). The baseline group is Shenzhen for the store location.

Cross-level tests. H6 states cross-level interactions between individual-level proactive personality and contextual variables in predicting voice behavior. In Model 3 (M3) of Table 2, we first regressed the intercept estimates for transformational leadership and supportive peer relationships. The results suggest that supportive peer relationship has a significant cross-level main effect on voice behavior, but not transformational leadership. Model 4 (M4) continues the slope estimates for proactive personality on the two contextual variables at Level 2. Consistent with our predictions, the interaction between proactive personality and transformational leadership is significant ($\gamma = -0.92$, $p < 0.05$), but the other interaction term is not ($\gamma_{52} = -0.04$). As shown in Fig. 1: The positive effect of proactive personality on voice behavior is much stronger when transformational leadership is lower than when it is higher. Therefore, H6 receives only partial support.

H7 predicts a positive effect of voice climate on individual creative performance. In order to examine this hypothesis, we conducted a cross-level analysis with creative performance as the dependent variable, education, organizational rank, time in the firms and job satisfaction as Level 1 control variables, and voice climate as the Level 2 variable. The results reveal voice climate is significantly related to creative performance ($\gamma = 0.51$, $p < 0.05$). Of

the control variables, both proactive personality and organizational rank are significantly related to creative performance ($\gamma = 0.22, p < 0.05$; $\gamma = 0.17, p < 0.05$). Therefore, H7 is supported.

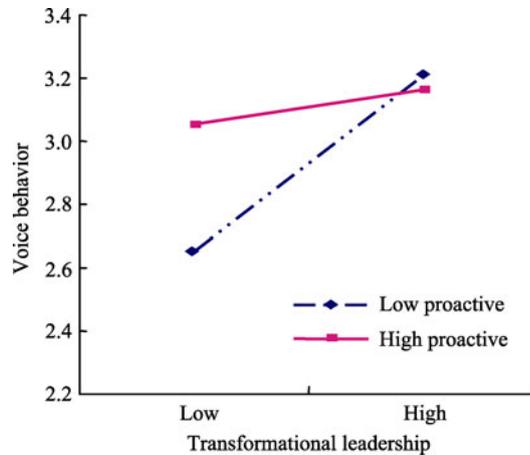


Fig. 1 Cross-Level Moderating Effects of Proactive Personality on the Relationship between Transformational Leadership and Voice Behavior

5 Discussions

Drawing on a sample of retail stores, this study examines employee voice behavior from a multilevel perspective. In summary, our results include four main parts: (1) Proactive employees tend to speak up with their constructive suggestions, which increase their creativity in the workplace; (2) transformational leadership facilitates voice climate within the stores, but its effect on store performance is not significant; (3) the positive effect of transformational leadership on voice behavior is stronger for proactive employees compared with passive ones; (4) voice climate within the store is positively related to creative performance. The theoretical and practical implications of our findings are discussed as below.

5.1 Theoretical Implications

First, this study successfully defines and operationalizes both voice behavior and voice climate. In the literature, employee voice was frequently defined at the individual level, such as Van Dyne et al. (2003), Liang and Farh (2008). In those studies, researchers made attempts to elaborate why individual employees speak up of their suggestions or choose to withhold their concerns. Different from this

approach, Morrison and Milliken (2000) conceptualized employee voice at the organizational level. They tried to elaborate why employees in some companies can speak up about their suggestions while employees in some other companies universally keep silence. Even though the two approaches have their unique values for the management, limited research effort has been made to integrate them before. Recently, Xie and Yang (2006) proposed the concept of “innovative community”, and advanced that organizational innovation should consider the individual and collective efforts simultaneously. Our multi-level framework is quite consistent with this concept.

In this study, we differentiate the two concepts in two ways: (1) At the conceptual level, we define the individual-level voice as a type of proactive behavior. It is a behavioral response from individual dispositions and psychological judgments. However, voice climate at the group-level is conceptualized as a type of collective attribute. It is organization members’ shared and enduring perceptions about whether voice of constructive suggestions is allowed or not in their workplace; (2) at the operational level, we measured voice behavior using supervisory rating to avoid various biases, such as lenient bias and self-service bias. We measured voice climate in a different way. Based on the referent shift model, we modified the referent of the items, and derived the store-level measure of voice climate from the aggregation of individual perceptions. We found that voice behavior is highly correlated with proactive personality, while voice climate with group attributes (e.g., transformational leadership and supportive peer relations). All the empirical findings lend supports to our operationalization of the two concepts.

Second, this study provides a multi-level explanation of employee voice. As defined, voice behavior is intended to be positive and is the result of effort spent analyzing problems and seeking out opportunities for improvement (LePine and Van Dyne, 2001). However, voice may also be interpreted as personal complaint or deviant behavior in that it challenges the status quo. The involvement of personal risk makes employees feel ambivalent towards voice in many situations. Researchers have attempted to predict voice behavior using either individual-centered (e.g., personality, attitude) or situation-centered (e.g., job characteristics, organizational settings) variables. The rationale behind the first line of research is that some individuals are simply more likely to take risks to express their suggestions than others. Second, the latter line of research focuses on organizational contexts to explain employees’ willingness to speak up. Subscribing to this approach, researchers believe that employees are constantly “reading the wind” for clues concerning “context favorability.” When they perceive the context is favorable and less threatening, voice is expected to increase. However, the individual-centered approach has neglected the fact that contextual factors can significantly constrain the effect of individual differences.

In contrast, the situation approach has highlighted the direct effect of organizational context on employee voice behavior, yet neglected that an individual may behave differently across contexts. In this study, we developed an integrative predictive model and conceptualized employee voice as a joint product of individual attributes and organizational contexts. Consistent with our theoretical framework, the findings suggest that complex human behavior such as voice is not influenced only by individual factors or contextual factors, but an interaction of both.

Third, this study examined the direct influences of voice behavior and voice climate on individual creative performance and store performance. In the literature, Morrison and Milliken (2000) proposed the negative influence of organizational silence, including low productivity, de-motivation, high turnover rate etc. However, those ideas have never been empirically tested. Building on the information-processing perspective, we developed both individual and group-level hypotheses, and collected data to test those hypotheses. Our results found that voice behavior wins others' (the supervisor in particular) recognition for her/his creative ideas, and voice climate provides supportive environments for innovations. These findings pave the way for future voice research and provide empirical support for organizational participation practices.

5.2 Managerial Implications

Chain store retailing has emerged as the most popular retailing form in China, because rapid economic growth and continuously increasing disposable income are fundamentally changing the consumption pattern of urban citizens in China. From December 11th 2004, three years after China officially became a World Trade Organization (WTO) member, the country finally removed all joint-venture requirements, geographical limits and restrictions with respect to the maximum number of outlets opened by foreigners. Foreign retailers, such as Carrefour and Wal-Mart, have set aggressive expansion targets to keep them ahead of their competitors in this booming market. The most recent example is that Wal-Mart almost doubled its store count after acquiring the Taiwanese retailer, Trust-Mart, in a bid (Bremner, 2006). In response to the pressure of intensifying competition, it is important for retail stores to receive numerous ideas for reducing operational cost, improving customer satisfaction, efficiency of promotion procedures, and revision of HR-related matters and so on. Therefore, the findings have implications for those who need to understand how to design and manage employee voice.

At the recruitment stage, retailing firms can actively influence the selection of appropriate candidates. This study shows that organizations should look for those candidates with a high level of personal imitative. At the same time, the firms

need to develop cooperative and interdependent working relationships. For example, managers can design favorable formal structures (e.g., team-based reward system and interdependent job design etc.), or organize more informal activities to increase the quality of interpersonal relationships. Interpersonal interaction can effectively prevent interpersonal bias and eliminate the uncertainties in speaking up of suggestions. Although our study found a positive effect of translational leadership on voice climate, its effect on individual voice behavior is not significant for high proactive employees. Thus, managers need to match their leadership style with the characteristics of their followers, so as to increase their effectiveness.

5.3 Limitations and Future Directions

We first acknowledge that the cross-sectional nature of our study precludes our ability to make inferences about the causal sequence of the variables in this study. Future research can employ longitudinal design to examine this issue. The second limitation is that we failed to examine how the individual and contextual variables influence individual psychological states (e.g., psychological safety) and group process (e.g., group cohesion). Without such knowledge, we cannot further clarify their underlying mechanisms on employee voice. Future research is needed for this question. Finally, the data used in the present article were collected from a specific retailing company. Considering its specific characteristics, our findings need to be interpreted with some caution. Future research should replicate these findings in other organizational contexts.

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References

- Ashford S J, Rothbard N P, Piderit S K, Dutton J E (1998). Out on a limb: The role of context and impression management in selling gender-equity issues. *Administrative Science Quarterly*, 43: 23–57
- Bacharach S B, Bamberger P A, Vashdi D (2005). Diversity and homophily at work: Supportive relations among White and African-American peers. *Academy of Management Journal*, 48: 619–644
- Baron R M, Kenny D A (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic and statistical consideration. *Journal of Personality and Social Psychology*, 51: 1173–1182
- Bass B M (1985). *Leadership and Performance beyond Expectations*. New York: Free Press
- Bateman T S, Crant J M (1993). The proactive component of organizational behavior. *Journal*

- of *Organizational Behavior*, 14: 103–118
- Bond M H, Hwang K K (1987). The social psychology of Chinese people. In: Bond M H (ed.), *The Psychology of Chinese People*. NY: Oxford University Press, 213–266
- Bremner B (2006). Wal-Mart shops for China's trust. *Business Week Online*, 10/18/2006
- Chan D (1998). Functional relations among constructs in the same content domain at different levels of analysis: A typology of composition models. *Journal of Applied Psychology*, 83: 234–246
- Crant J M (2000). Proactive behavior in organizations. *Journal of Management*, 26: 435–462
- Dutton J E, Ashford S J, O'Neill R M, Hayes E, Wierba E E (1997). Reading the wind: How middle managers assess the context for selling issues to top managers. *Strategic Management Journal*, 18: 407–425
- Edmondson A C (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44: 350–383
- Fried Y, Tieggs R B (1993). The main effect model versus buffering model of shop steward social support: A study of rank-and-file auto workers. *Journal of Organizational Behavior*, 14: 481–493
- Granovetter M S (1982). The strength of weak ties: A network theory revisited. In: Marsden P V, Lin N (eds.), *Social Structure and Network Analysis*. Beverly Hills, CA: Sage, 105–130
- Hackman J R, Oldham G R (1980). *Work Redesign*. Reading, Mass: Addison-Wesley
- Hofmann D A, Gavin M B (1998). Centering decisions in hierarchical linear models: Implications for research in organizations. *Journal of Management*, 24: 623–641
- James L R (1982). Aggregation bias in estimates of perceptual agreement. *Journal of Applied Psychology*, 67: 219–229
- James L R, Demaree R G, Wolf G (1984). Estimating within-group interrater reliability with and without response bias. *Journal of Applied Psychology*, 69: 85–98
- Jehn K A, Shah P P (1997). Interpersonal relationships and task performance: An examination of mediating processes in friendship and acquaintance groups. *Journal of Personality and Social Psychology*, 72: 775–790
- Kark R, Shamir B, Chen G (2003). The two faces of transformational leadership: Empowerment and dependency. *Journal of Applied Psychology*, 88: 246–255
- Kirkman B L, Rosen B (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal*, 42: 58–75
- Kozlowski S W J, Hattrup K (1992). A disagreement about within-group agreement: Disentangling issues of consistency versus consensus. *Journal of Applied Psychology*, 77: 161–167
- Liang J, Farh J L (2008). Promotive and prohibitive voice behavior in organizations: A two-wave longitudinal examination. Paper presented at the Third Conference of the International Association for Chinese Management Research, Guangzhou, China
- LePine J A, Van Dyne L (1998). Predicting voice behavior in work groups. *Journal of Applied Psychology*, 83: 853–868
- LePine J A, Van Dyne L (2001). Voice and cooperative behavior as contrasting forms of contextual performance: Evidence of differential relationships with big five personality characteristics and cognitive ability. *Journal of Applied Psychology*, 86: 326–336
- Milliken F J, Morrison E W, Hewlin P F (2003). An exploratory study of employee silence: Issues that employees don't communicate upward and why. *Journal of Management Studies*, 40: 1453–1476
- Mischel W (1977). The interaction of person and situation. In: Magnusson D, Endler N S (eds.), *Personality at the Crossroads: Current Issues in Interactional Psychology*. Hillsdale,

- NJ: Erlbaum, 333–352
- Morrison E W, Milliken F J (2000). Organizational silence: A barrier to change and development in a pluralistic world. *Academy of Management Review*, 25: 706–731
- Oldham G R, Cummings A (1996). Employee creativity: Personal and contextual factors at work. *Academy of Management Journal*, 39: 607–634
- Parker S K (1998). Role breadth self-efficacy: Relationship with work enrichment and other organizational practices. *Journal of Applied Psychology*, 83: 835–852
- Podsakoff P M, McKenzie S B, Moorman R H, Fetter R (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behaviors. *Leadership Quarterly*, 1: 107–142
- Salancik G R, Pfeffer J (1978). A social information processing approach to job attitudes and task design. *Administrative Science Quarterly*, 23: 224–259
- Scott S G, Bruce R A (1994). Determinants of innovative behavior: A path model of individual innovation in the workplace. *Academy of Management Journal*, 37: 580–607
- Thompson J A (2005). Proactive personality and job performance: A social capital perspective. *Journal of Applied Psychology*, 90: 1011–1017
- Tyler T R, Lind E A (1992). A relational model of authority in groups. *Advances in Experimental Social Psychology*, 25: 115–191
- Van Dyne L, Ang S, Botero I C (2003). Conceptualizing employee silence and employee voice as multidimensional constructs. *Journal of Management Studies*, 40: 1359–1392
- Van Dyne L, LePine J A (1998). Helping and voice extra-role behaviors: Evidence of construct and predictive validity. *Academy of Management Journal*, 41: 108–119
- Williams K, O'Reilly C (1998). The complexity of diversity: A review of forty years of research. *Research in Organizational Behavior*, 20: 77–140
- Yang K S (1993). Chinese social orientation: An integrative analysis. In: Cheng L Y, Cheung F M C, Chen C N (eds.), *Psychotherapy for the Chinese: Selected Papers from the First International Conference*. Hong Kong: Chinese University of Hong Kong, 19–56
- 林泽炎 (Lin Zeyan) (2004). 中国企业人力资源管理制度建设及实施概况 (A survey of institutional improvement of human resource management in Chinese firms). *中国人力资源开发*, (9): 82–85
- 谢章澍, 杨志蓉 (Xie Zhangshu, Yang Zhirong) (2006). 创新共同体: 企业全员创新模式的新探索 (Innovative community: A new exploration in organizational innovation). *科学学研究*, (10): 775–779