When and why are employees willing to engage in voice behavior: a power cognition perspective

Shiwen Luo[1] · Jie Wang[2] · Zaiyang Xie[3] · David Yoon Kin Tong[4]

Abstract
Previous studies have found that sense of power is an important predictor of employee voice; however, the mechanism underlying the relationship between these factors remains unclear. To explore this mechanism, 642 valid questionnaires from 45 enterprises were used to conduct an empirical test based on the approach–inhibition theory of power. The results showed that sense of power can affect error risk taking positively, error risk taking mediates the relationship between sense of power and employee voice; and power congruence moderates both the direct relationship between sense of power and employee voice and their indirect relationship via error risk taking. This study thus provides a useful reference for improving employees' enthusiasm for voice behavior and can help enhance the competitiveness of enterprises.

Keywords Sense of power · Error risk taking · Power congruence · Employee voice · Approach–inhibition theory of power

Introduction

Amid the advent of the digital era, the external environment of enterprises is constantly changing, and it is impossible for them to solve all problems by relying solely on the wisdom of management. It is necessary to encourage employees to make suggestions for enterprise development, that is, to motivate employee voice. Employee voice is the behavior exhibited by employees who take the initiative to propose improvement ideas to solve existing problems in their organizational work modes or processes with the aim of improving organizational performance (Ng & Feldman, 2012; Morrison, 2023). However, this behavior often entails potential errors for employees (Detert & Edmondson, 2011;

Li & Tangirala, 2021), such as authority challenges, interpersonal tensions, unanticipated adverse results and other errors, a situation that frequently causes employees to remain silent when facing organizational problems. Therefore, how to effectively motivate employee voice with the aim of improving organizational performance is an important challenge faced by entrepreneurs and scholars.

The predictors of employee voice can be divided into three categories: individual predictors, team predictors and organizational predictors. Individual predictors mainly include employees' personal characteristics, self-efficacy, psychological safety, psychological ownership, organizational identity, gender, etc. (Liang et al., 2012; Bashshur & OC, 2015; Ge, 2020; Eibl et al., 2020). Team predictors mainly include team structure, team atmosphere, leadership type, leader emotional state, etc. (Lepine Van Dyne, 1998; Morrison, 2011; Potipiroon & Ford, 2021; Rasheed et al., 2021; Song et al., 2022). Organizational predictors include organizational culture, type, atmosphere, human resource management, high-performance work systems, etc. (Dyne et al., 2003; Klaas et al., 2012; Xiaoyi & Yunfeng, 2018; Azevedo et al., 2021; Ashiru et al., 2022). The literature has provided insights into the mechanism underlying the generation of employee voice. However, we have found few studies on the mechanism of employee voice from the perspective of power. Different from general resources, power

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✉ Jie Wang
  andersonwang111@foxmail.com

1 School of International Business, Zhejiang Financial College, Hangzhou 310018, China

2 Business & Tourism Institute, Hangzhou Vocational & Technical College, Hangzhou 310018, China

3 School of Management, Zhejiang University of Technology, Hangzhou 310023, China

4 Faculty of Business, International University of Malaya-Wales, Kuala Lumpur 50480, Malaysia

has the characteristics of competition and scarcity and has a profound impact on the behavior of organizational members, especially the extra-role behaviors, such as voice behavior (Detert & Burris, 2007; Kim et al., 2019). In response to calls for the connection between power and voice in the fields of organizational behavior and psychology (Morrison, 2011; Morrison et al., 2015; Wang et al., 2021), some studies have attempted to explore the effect of sense of power on employee voice (Chamberlin et al., 2017; O'Donnell & Macpherson, 2019; Jiangpei et al., 2020; Liu et al., 2022).

These previous explanations of the mechanism of the effect of sense of power on employee voice have mainly been drawn from two theoretical perspectives on power: situated focus theory and approach–inhibition theory. Situated focus theory implies that sense of power can enhance the cognitive flexibility and psychological availability of individuals when dealing with environmental changes, thereby promoting employees to produce more innovative ideas and exhibit approach behavior, in turn leading to more voice behavior (Chamberlin et al., 2017). Approach–inhibition theory contends that a high sense of power helps increase employees' internal positive emotions and emotional experiences, thereby activating their approach behavior system and making them willing to engage in voice behavior for the good of their organization; however a low sense of power activates employees' inhibition behavior system and drives them to remain silent (Tost & Johnson, 2019). In summary, the extant explanations of the effect of sense of power on employee voice have mainly emphasized two aspects: behavioral tendency and cognition. Nevertheless, research on cognition has focused solely on the effect of information cognition and disregarded the effect of self-cognition in this context. However, cognition includes not only external information cognition but also internal self-cognition (Duan & Huang, 2013; Galinsky et al., 2015), and self-cognition is one of the important ways of changing behavior. Therefore, exploring the effect of sense of power on employee voice from the perspective of self-cognition requires further development.

Accordingly, the first step is to explore the mediating mechanism of the effect of sense of power on employee voice from the perspective of self-cognition based on the approach–inhibition theory of power. It has been pointed out that sense of power is closely related to self-cognition (Galinsky et al., 2015). For example, sense of power can improve organizational members' level of self-evaluation (Berdahl & Martorana, 2006), global self-esteem (Wojciszke & Struzynska-Kujalowicz, 2007), overconfidence (Fast et al., 2012), hope-agency (Li et al., 2021) and self-efficacy (Korman et al., 2022). Self-cognition is the key factor motivating employee voice (Morrison, 2011; Yan, 2018). It can be seen that sense of power may influence employee voice

through self-cognition. Jiangpei et al. (2020) have verified that sense of power can affect employee voice through sense of responsibility, one of the self-cognition mechanisms. Some studies have noted that the reason why employees dare to voice is that they are willing to take the error risks caused by voice (Ng & Feldman, 2012). As a positive error orientation at the psychological level, error risk taking is a positive self-cognition that is oriented towards achievement, indicating that individuals are willing to take more risks to improve organizational performance (Yaghoubi, 2011). According to the theory of approach-inhibition, sense of power stimulates individual goal orientation, prompting the individual to make efforts and take more risks (Guinote, 2017) and to be less concerned about possible losses (Galinsky et al., 2008), thereby improving the awareness of error risk-taking. Error risk taking is an important psychological variable when individuals take initiative actions such as voice (Duan et al., 2013), which can effectively improve individuals' positive attitude and willingness to take adverse consequences (Zhang et al., 2020) and eliminate the error risks of, e.g., challenging power, interpersonal tensions, and unexpectedly adverse results, which may be caused by voice (Hetzner et al., 2011). Thus, sense of power can motivate employee voice by stimulating employees' internal self–cognition mechanism of error risk taking.

In addition, the effect of sense of power on individual cognition and behavior is affected by boundary conditions (Galinsky et al., 2015). Most previous studies have explored the possible moderating factors from the perspective of individual characteristics. However, empirical studies on the moderating effect of organizational situation factors remain quite sparse. This is contrary to the current call emphasizing that low-level characteristic factors should be combined with high-level situational factors in cross-level analysis (Duan et al., 2017; Wolter et al., 2021). Accordingly, the second step of this study is to examine the moderating mechanism of the effect of sense of power on employee voice at the organizational level. The current organizational moderating factors of sense of power mainly include power distance (Duan & Huang, 2013), target openness (Morrison et al., 2015), self-constructiveness (Yue et al., 2018), organizational identification (Qiuyun et al., 2020), and state of power (Sekścińska et al., 2022), etc., but scholars have rarely considered the influence of power itself. The factors of power itself are considered the potential moderating variables of power utility (Greer, 2014), which mainly include power structure and power cognition (Greer, 2014). Compared to power structure, power cognition has not received enough attention and research, but it is considered an important direction for future research. Power cognition includes power congruence and legitimacy (Greer et al., 2011; Greer, 2014). Among them, power congruence is the degree to

which organizational members reach consensus regarding the relative hierarchical order of themselves and other members (Greer et al., 2011; Lo, 2014). Previous studies have emphasized that in organizations with a highly consistent cognition of power structure, power can effectively play a positive role and is linked to individual approach cognition and behavior (Greer et al., 2011; Bos, Lind, 2002; Greer et al., 2017). Specifically, power congruence can enable members to improve their understanding of their position within their organization, reduce their behavioral uncertainty, enhance their organizational stability (Fiol, Connor, Aguinis, 2001), and show higher level of self-evaluation, organizational identity and responsibility (Toto, Man, Blatt, et al., 2015). Hence, it improves their error risk taking ability, eliminates all kinds of concerns caused by voice, and causes members to dare to actively voice in their organization. Therefore, this study theorizes that if organization members maintain a consistent understanding of their power structure, sense of power can have a more significant impact on employee voice.

In sum, this study takes error risk taking as the mediator and power congruence as the moderator to build a systematic theoretical model of the effect of sense of power on employee voice. This study thus makes the following contributions in the following aspects: First, to demonstrate the effect of sense of power on self-cognition and expand the effect of sense of power on information cognition to self-cognition, this study analyses the positive effect of sense of power on error risk taking. Second, to deepen the research on the mechanism of the effect of sense of power on employee voice, this study explores the mediating effect of error risk taking on the relationship between sense of power and employee voice from the perspective of self-cognition based on the approach-inhibition theory. Third, to examine the boundary conditions of the effect of sense of power on employee voice, this study analyses the contingent impact of power congruence on the above relationships from an organizational perspective.

Conceptual background

The effect of sense of power on error risk taking

Sense of power refers to a member's subjective sense of his or her ability to control and influence resources or other members (Keltner et al., 2003). It is the application of power in the field of psychology and has an important impact on individual cognition and behavior (Anderson et al., 2012; Morrison et al., 2015; Liu & Mattila, 2017). The practice of proposing methods for improving existing working modes, methods or processes often involves a certain amount of

pressure and specific risks. Members with a high sense of power believe that they have the ability to deal with pressure and risks and are also more optimistic, confident, and open; in addition, they have a higher self-evaluation (Islam & Zyphur, 2005; Berdahl & Martorana, 2006). In turn, these factors promote their sense of responsibility and willingness to bear more pressures and risks for the benefit of their organization and to make even more personal sacrifices. Error risk taking is defined as an individual's openness and flexibility with regard to dealing with errors, which indicates the individual's positive emotional orientation towards and willingness to bear the risks and pressures associated with errors and to continue to take the initiative to bear any potential error risks caused by improving existing procedures and correcting more problems rather than being idle (Rybowiak et al., 1999).

Specifically, members with a high sense of power have a higher tolerance for error risks, and when faced with an event with uncertain results, they care more about positive results and less about possible losses (Galinsky et al., 2008). Simultaneously, they have a stronger overall concept and sense of responsibility, are more inclined to sacrifice their personal interests to protect organizational interests and are willing to take more risks to improve organizational performance (Parker & Axtell, 2001). In addition, members with a high sense of power often have more resources and greater levels of freedom, dare to take more risks, and have a more optimistic sense of risks and pressures (Anderson et al., 2012), thus naturally disregarding the potential risks of their behaviors while being willing to bear the possibly adverse consequences. For example, Wang and Xing (2019) have noted that members with a high sense of power generally experience more positive emotions, are less constrained by their environment, and adopt a self-propelling cognitive approach. In contrast, members with a low sense of power are likely to pay more attention to threats or punishments and experience more negative emotions. Such members are also susceptible to environmental constraints and adopt a cognitive style rooted in inhibition. Accordingly, we posit the following:

Hypothesis 1 *Sense of power can positively predict error risk taking.*

The mediating effect of error risk taking

Employee voice refers to the behavior of actively proposing constructive opinions to improve the procedures or rules of an organization and enhance organizational performance (Liang et al., 2012); employee voice is regarded as an extra-role behavior (Detert & Burris, 2007). Enabling employees

to engage in voice behavior for the good of their organization should not rely solely on incentives but also on alleviating employees' worries. The worries associated with employee voice often originate from error risks because voice may lead to errors such as authority challenges, interpersonal tension, and unanticipated adverse results. In this context, employees' views and attitudes towards errors are relevant; that is, their error orientation determines the occurrence of voice (Xie, 2016). As a psychological dimension of error orientation, error risk taking is associated with a positive error orientation, which refers to the openness and flexibility that individuals exhibit when dealing with errors (Hetzner et al., 2011).

We believe that error risk taking is an important internal and psychological driving force that allows sense of power to stimulate approach behavior and that it plays an important role in promoting extra-role behavior such as voice. Specifically, since it represents a proposal to change the existing order and rules of an organization, entailing challenges to the current situation of the organization, employee voice is regarded as a risky and provocative behavior (Wilkinson et al., 2018). Naturally, employees usually weigh their possible risks and benefits before engaging in voice behavior (Mowbray et al., 2021). Employees with a stronger error risk-taking tendency tend to have a greater willingness to resist risks. To improve the current situation of their organization and organizational performance, they are more likely to engage in voice behavior when necessary. Second, employees with a high level of error risk taking tend to possess a positive attitude and to be willing to accept adverse consequences. They participate actively in organizational tasks and are responsible for task results (Zhang et al., 2020). Simultaneously, this psychological mechanism promotes their willingness to achieve organizational goals and enhances their motivation to engage in voice behavior (Ma & Liu, 2019). In light of the preceding analysis, we believe that error risk taking is a key psychological predictor of voice.

The effects of sense of power on employees' cognition, emotion and behavior can be integrated using approach-inhibition theory (Keltner et al., 2003). Employee voice, as an approach behavior, requires employees to have a more proactive self-awareness to overcome possible pressures and risks. As a psychological state that can stimulate approach behavior, sense of power has a positive effect on voice behavior (Anderson & Berdahl, 2002). We perceive that error risk taking, as a more "proximal" predictor than sense of power, can serve as a bridge between sense of power and employee voice. Specifically, sense of power gives employees more positive internal self-cognition, such as error risk taking, and motivates them to engage in extra-role behavior, such as voice. In other words, their sense of

power increases employees' error risk taking and further promotes voice behavior. In light of the preceding analysis, we postulate the following:

Hypothesis 2 *Error risk taking can play a mediating role between sense of power and employee voice.*

The moderating effect of power congruence

Power congruence refers to the degree to which organizational members reach consensus regarding the relative hierarchical order of themselves and other members (Greer et al., 2011). Previous studies have highlighted how the ways in which members view their own power and that of other members have an important effect on the effectiveness of power (Greer, 2014). Specifically, when a member's self-awareness of power is consistent with others' views, that is, in cases featuring a high level of power congruence, members can clearly recognize their positions and tend to accept their role within their organization, whereby organizational stability tends to increase (Fiol et al., 2001). Members with a high sense of power do not have to worry about the threat of power loss in a stable environment and are more prone to error risk taking. Moreover, when they experience recognition by other members, they exhibit a higher self-evaluation (Toto et al., 2015) and believe that they have the responsibility to improve the current organizational situation and order, even at the risk of error. Conversely, when others do not recognize their position within their organization, individuals with a low sense of power can feel criticism from others and are likely to engage in more conservative behavior to reduce their own risks and any pressures on their team (Anderson et al., 2008); they are naturally unwilling to face more risks of error. In light of the preceding analysis, we hypothesize the following:

Hypothesis 3 *Power congruence can moderate the effect of sense of power on error risk taking: the higher the level of power congruence is, the stronger the positive effect of sense of power on error risk taking.*

Combining the mediating assumption of Hypothesis 2 with the moderating assumption of Hypothesis 3, we argue that the indirect effect of sense of power on employee voice via error risk taking differs due to the relevant level of power congruence. Specifically, under conditions featuring a high level of power congruence, sense of power significantly promotes error risk taking and subsequently promotes employee voice; conversely, under conditions featuring a low level of power congruence, this indirect effect is

weaker. In light of the preceding discussion, we propose the following integrated hypothesis:

Hypothesis 4 *Power congruence can moderate the mediating effect of error risk taking between sense of power and employee voice; that is, the higher the level of power congruence is, the stronger the positive relationship between sense of power and employee voice through error risk taking.*

Based on the comprehensive analysis discussed above, we propose the following theoretical model (as Fig. 1):

Methods

Data collection and research samples

In this study, 52 enterprises in Zhejiang Province, China, involved in six main industries including manufacturing, logistics and transportation, trade and circulation, insurance, education and training, and banking, were surveyed. There was no restriction on specific industry for this study as employee voice is a common phenomenon in any type of enterprise. At the same time, the questionnaires were collected by enterprise as a unit. The questionnaires were distributed and collected on site by research assistants. Due to the unavailability of complete information on the appropriate staff members who could provide the necessary information, a nonprobability sampling method known as judgement sampling was utilized (Abbasi et al., 2022). The data were collected according to the guidelines of the Chinese government's regulations during the COVID-19 restrictions on enterprises. For this reason, the data were collected in a single stage.

A total of 1040 questionnaires were distributed, of which 832 were recovered. The validity of the returned questionnaires was checked. Each survey was self-administered, which means that the respondents completed the survey on their own, without the presence of a researcher or interviewer. Invalid questionnaires that were completed regularly, inconsistent or had missing data were discarded, and any enterprises with fewer than 10 valid questionnaires were deleted. Ultimately, 642 data points from 45 enterprises were deemed valid. The sorting process led to a recovery rate of 77.16%. Enterprises with fewer than 100 employees accounted for 13.33% of the total, enterprises with 100–500 employees accounted for 44.44%, and enterprises with more than 500 employees accounted for 42.23%. With regard to the 642 individuals who participated in the study, 54.21% were male and 45.79% were female; 47.20% had a college degree or below, 35.35% had a bachelor's degree, and 17.45% had a master's degree or above. Moreover,15.73% had a working term of less than one year, 34.89% had worked for one–three years, 29.75% had worked for three–five years, and 19.63% had worked for five years or more.

Measures

Instrument and validation

To improve the reliability and validity of the measured variables, we adopted established instruments that have been frequently used and have exhibited high levels of reliability and validity for measurement purposes. The questionnaire was scored on a 5-point Likert scale, where 1 represents disagree strongly, 2 represents disagree, 3 represents neither agree nor disagree, 4 represents agree, and 5 represents agree strongly.
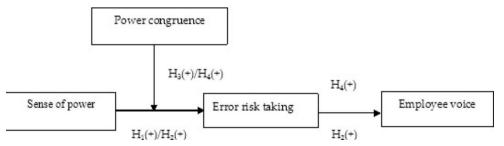
Sense of power. We adopted the scale developed by Anderson and Galinsky (2006), which includes a total of 8 items, including "I think I have a great deal of power in the negotiation". The Cronbach's alpha was 0.87.

Error risk taking. We used the error risk taking dimension of the EOQ scale proposed by Rybowiak et al. (1999), which features a total of 4 items, including "To get on with my work, I gladly put up with things that can go wrong". The Cronbach's alpha was 0.85.

Employee voice. We adopted the scale developed by Van Dyne and LePine (1998), which features a total of 6 items, including "The employee is actively involved in topics that affect the quality of work life on the organization". The Cronbach's alpha was 0.90.

Power congruence. To measure the degree of power congruence, first, enterprise participants (including employees and leaders) were required to use a 5-point Likert scale (1 represents very weak, 2 represents weak, 3 represents neutral, 4 represents strong, and 5 represents very strong) to

Fig. 1 Research model

evaluate their ability to exert influence on everyone within their enterprise (including themselves) based on "how much influence each member has on the organization". Second, we calculated the differences in the scores between the self-evaluations and others' evaluation of participants' power, and the differences in the scores of all members were averaged to obtain the power incongruence score of each participant. Moreover, to obtain the power incongruence score, at the organizational level, we averaged the power incongruence score at the individual level of all participants and reverse coded organizational-level incongruence score to reflect the organizational-level power congruence.

Controls. According to previous cross-level research on employee voice (Mowbray et al., 2015; Ye et al., 2020; Mowbray et al., 2021), gender, education and seniority were selected as the control variables at the individual level, and organizational scale was selected as a control variable at the organizational level.

Results

Aggregation analysis

Since power incongruence at the organizational level is integrated from power incongruence at the individual level, it is necessary to test the feasibility of this aggregation. The Rwg value of individual-level power incongruence, calculated using *R* software, is 0.857, ICC(1) = 0.338 and ICC(2) = 0.649, satisfying the relevant critical thresholds (the critical values of ICC (1) < 0.50 and ICC(2) > 0.50). This finding indicates that the data on the level of power incongruence exhibit sufficient differences among organizations and are highly consistent at the organizational level, thus meeting the conditions for data aggregation. These results also show that power congruence at the organizational level is reasonable.

Common method variance test

Since the data in this study mainly come from subjects' self-report in one stage, there may be serious homology bias among the variables. This study uses Harman's single-factor test method to test whether the sample has serious common method variance. The specific method is as follows: we place the items of all the variables together for exploratory factor analysis without rotation. If multiple factors are separated and the first factor cannot explain most of the variation, the problem of common method variance is not serious. The results show that the variance interpretation percentage of the first factor is 21.73%, which is less than 40% of the critical value, indicating that the problem of common method variance is not serious in this study.

Confirmatory factor analysis

The theoretical model constructed in this study mainly includes four variables: error risk taking, sense of power, power congruence, and employee voice. The results of confirmatory factor analysis on these four variables are shown in Table 1. According to Table 1, the fit of the four-factor model meets the criteria of model fit ($\chi2/df$ = 1.48, RMSEA = 0.07, GFI = 0.94, AGFI = 0.91, NNFI = 0.93, CFI = 0.94, TLI = 0.90, IFI = 0.94, RMR = 0.03) (the theoretical expected values of $\chi2/df$, GFI, AGFI, NNFI, CFI, TLI, and IFI are all 1, and the closer they are to 1, the better the model fit; the expected theoretical value of RMSEA is 0, and the closer it is to 0, the better the model fit; the critical value of RMR < 0.05), indicating that the measurement model has high aggregation validity. The fit of the other three alternative models is poor and is significantly different from that of the four-factor model. These results indicate that the variables have good discriminant validity.

Correlation analysis

The mean (M), standard deviation (SD) and correlation coefficient of 8 variables including control variables are shown in Table 2. Table 2 indicates a significant positive correlation between sense of power and error risk taking ($r = 0.52$, $P < 0.01$); in addition, error risk taking ($r = 0.47$, $P < 0.01$) and sense of power ($r = 0.39$, $P < 0.01$) are both significantly positively correlated with employee voice.

Hypothesis testing

The hypotheses are tested via cross-level model analysis conducted using Mplus 7.11 software. We first construct a cross-level mediating model and set the effect of sense of power on error risk taking and the effect of error risk

Table 1 Confirmatory factor analysis

Models	χ^2/ df	RMSEA	GFI	AGFI	NNFI	CFI	TLI	IFI	RMR
SOP;ERT;PC;EV	1.48	0.07	0.94	0.91	0.93	0.94	0.90	0.94	0.03
SOP + ERT;PC;EV	2.15	0.13	0.87	0.82	0.85	0.86	0.83	0.87	0.14
SOP + ERT + PC;EV	2.68	0.17	0.79	0.76	0.77	0.78	0.74	0.79	0.15
SOP + ERT + PC + EV	3.32	0.19	0.68	0.62	0.68	0.69	0.61	0.69	0.18

Note. SOP = sense of power; ERT = error risk taking; PC = power congruence; EV = employee voice

Table 2 Descriptive statistical results

variables	M	SD	1	2	3	4	5	6	7	8
1.gender	0.46	0.31	1.00							
2.education	1.70	0.48	0.03	1.00						
3.seniority	2.53	0.61	0.01	0.00	1.00					
4.OC	2.29	0.57	0.01	0.02	0.02	1.00				
5.SOP	4.02	0.86	0.05	0.04	0.05	0.03	1.00			
6.ERT	3.76	0.83	0.03	0.00	0.02	0.03	0.52**	1.00		
7. PC	3.89	0.79	0.01	0.02	0.01	0.05	0.21**	0.19**	1.00	
8. EV	3.45	0.82	0.00	0.03	0.07	0.06	0.39**	0.47**	0.26**	1.00

Note. * $P < 0.05$; **$P < 0.01$; OC = organizational scale; SOP = sense of power; ERT = error risk taking; PC = power congruence; EV = employee voice

Table 3 Mediation effect test results of variables

variables	error risk taking	employee voice
Individual variables		
gender	0.01(0.01)	0.00(0.01)
education	-0.03(0.01)	0.10(0.13)
seniority	0.11(0.11)	-0.12(0.11)
sense of power	0.41***(0.05)	0.33**(0.03)
error risk taking		0.35**(0.12)
Organizational variables		
organizational scale	0.08(0.10)	0.02(0.03)

Note. * $P < 0.05$; ** $P < 0.01$; *** $P < 0.01$

Table 4 Moderation effect tests results of variables

variables	error risk taking	employee voice
Individual variables		
gender	0.00(0.02)	0.02(0.01)
education	0.01(0.02)	-0.04(0.03)
seniority	0.12(0.13)	0.10(0.15)
sense of power	0.37***(0.11)	0.26**(0.03)
error risk taking		0.38**(0.16)
Organizational variables		
organizational scale	0.10(0.08)	-0.02(0.01)
power congruence		0.24**(0.08)
interaction item		
sense of power * power congruence	0.29**(0.09)	

Note. * $P < 0.05$; ** $P < 0.01$; *** $P < 0.01$

Fig. 2 The moderating effect of power congruence

size = 0.08, $P < 0.05$, 95% CI [0.07, 0.26]). Based on the results of the preceding analysis, Hypothesis 2 is supported.

With regard to testing Hypothesis 3, on the basis of the mediating model discussed above, we take power congruence as an organizational variable to regress the random slope utility of sense of power and error risk taking to construct a cross-level moderating model (see Table 4). We find that the interaction item of power congruence and sense of power can positively affect error risk taking ($\beta = 0.29$, $P < 0.01$). Furthermore, we conduct a simple slope analysis (see Fig. 2). Figure 2 indicates that power congruence can play a positive role in moderating the relationship between sense of power and error risk taking. Therefore, Hypothesis 3 is supported.

To test Hypothesis 4, i.e., the moderated mediating effect, we calculate the indirect effect of the path of error risk taking under both high and low power congruence scenarios. This study estimates the confidence intervals for the indirect effect of the path of error risk taking by calculating 5000 bootstraps. Table 5 shows that under a condition of high power congruence, the indirect effect of the path of error risk taking is significant (effect size = 0.09, 95% bootstrap CI is [0.02, 0.16]); however under a condition of low power congruence, the indirect effect of the path of error risk taking is not significant (effect size = 0.02, 95% bootstrap CI is [-0.02, 0.06]). Moreover, the difference between these effects is 0.04 (95% bootstrap CI is [0.01, 0.08]). Therefore, this analysis supports Hypothesis 4; that is, the higher

taking on employee voice as a random slope utility at the individual level.

Table 3 shows that sense of power can significantly positively predict error risk taking ($\beta = 0.41$, $P < 0.001$); therefore, Hypothesis 1 is supported. In addition, from the positive effect of sense of power on employee voice ($\beta = 0.33$, $P < 0.01$) and the positive effect of error risk taking on employee advice ($\beta = 0.35$, $P < 0.01$), it can be inferred that Hypothesis 2 is supported. To verify the mediating effect of error risk taking in further detail, we use R software with 5000 Monte Carlo simulations. These results show that the effect of the error risk-taking path is significant (effect
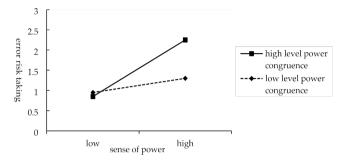
Table 5 Moderated mediation effect test results

variables	indirect effect		power congruence			Mediated moderating effect			
	moderator	effect	SE	upper	lower	index	SE	upper	lower
employee	low	0.02	0.01	-0.02	0.06	0.04	0.05	0.01	0.08
voice	high	0.09	0.01	0.02	0.16				

power congruence is, the greater the effect of sense of power on employee voice via error risk taking.

Discussion

This study used 642 valid questionnaires administered to pairs of superiors and subordinates in 45 organizations, to study the internal mechanism of the effect of sense of power on employee voice. The results confirm the research hypothesis, i.e., sense of power has a significant positive impact on employee voice via the path of error risk-taking. In addition, power congruence promotes employee voice by positively moderating the relationship between sense of power and employee voice.

The higher the sense of power is, the more likely employees are to be inclined towards proactive behaviors, such as voice. Namely, individuals with a high sense of power have more resources and can obtain a high level of influence and control over others (Galinsky et al., 2008). Such individuals exhibit greater optimism, confidence, openness, and higher self-evaluation (Berdahl & Martorana, 2006), and it is easy to stimulate such individuals' goal orientation, thus prompting them to take more risks (Guinote, 2017). These individuals are more likely to provide advice to their organization when they are willing to take more risks (Detert & Edmondson, 2011). This result is highly consistent with approach-inhibition theory.

Previous research has confirmed that the manner in which members perceive their own power and that of other members has a significant impact on the effectiveness of power (Greer, 2014). This study has examined the moderating effect of power congruence on the relationship between sense of power and employee voice behavior; this effect is positive. The moderating effect of power congruence is mainly because under a condition of high power congruence, employees can clearly recognize their positions and are more willing to accept their own organizational role (Fiol et al., 2001); thus, different levels of sense of power affect individual cognition and behavior in different ways. In addition, previous studies have confirmed the direct impact of power congruence on voice behavior (Guzman & Fu, 2022). This study has additionally found that power congruence affects voice behavior indirectly by interacting with sense of power.

Theoretical contribution

The theoretical significance of this study is that it links power and voice behavior and explains the internal mechanism underlying the effects of employee voice from the power cognition perspective. Specifically, the study makes the following theoretical contributions:

First, this study diverges from the traditional framework of external cognitive mechanisms (Morrison, 2014) and focuses on the perspective of internal self-cognition, providing a new direction for research on the mechanism underlying the effects of employee voice that can compensate for the lack of inquiry into the cognitive mechanism underlying voice behavior (Galinsky et al., 2015). In addition to external cognition and other motivations, employee voice behavior is the result of the psychological, internal drive of their sense of power.

Second, this study provides insights that can improve the understanding of sense of power, indicating that the corresponding effect occurs by affecting other cognitive processes, i.e., error risk taking. This result not only expands the research on the internal psychological cognitive mechanism underlying employee voice but also enriches the research connotations of approach-inhibition theory (Tost & Johnson, 2019).

Third, we have examined the moderating effect of power congruence on the relationship between sense of power and employee voice from a cross-level perspective. Such an analysis of the individual variable sense of power and the organizational variable power congruence therefore overcomes the limitations of previous studies based on a single-level perspective to a certain extent and provides theoretical guidance that can help the organization establish a favourable environment to promote voice behavior.

Practical implication

First, it is interesting to note how power takes different forms, such as the control of valuable resources and the promotion of organizational status. Although endowing resources or positions is an important way of enhancing power, the psychological sense of power is equally important (Seppälä et al., 2012). The resources or positions available within an organization are limited, and the distribution cannot be completely equal; nonetheless, the organization can empower employees in other ways, such as by improving

its employees' work autonomy and target openness (Morrison et al., 2015) and increasing their career adaptability (Hirschi, 2009), to ensure that their psychological sense of power can be improved, thereby enhancing employee voice and other approach behaviors.

Second, since employee voice entails error risk, it is necessary to improve employees' error risk-taking ability. On the one hand, error risk-taking ability should be incorporated into any employee assessment system with the aim of selecting a group of employees who have the ability to take risks, dare to face them, are not afraid of failure, and actively innovate (Santesso & Segalowitz, 2009). On the other hand, employees' sense of responsibility should be enhanced, a good atmosphere for error risk management should be established, and error worries should be eliminated with the aim of promoting the generation of voice and other extrarole behaviors.

Third, by rationalizing an organizational power structure, improving employees' recognition thereof, and enhancing the stimulation of their sense of power, the generation of voice behavior can be promoted.

Limitations and directions for future research

First, this study has explored the internal mechanism underlying the effect of sense of power on employee voice from the perspective of approach-restraint theory; however, it has not considered other plausible theoretical perspectives. Future research can combine other theoretical perspectives to study the internal mechanism of the effect of sense of power on employee voice in different contexts. Second, many factors can affect employee voice, and some uncontrolled factors, such as organizational culture, have been found to affect the applicability of these research results (Chamberlin et al., 2017). Future research can incorporate more contextual variables, such as power distance (Luo et al., 2020), into their study categories. Third, the survey data used in this study are cross-sectional data; however longitudinal research designs have advantages in inferring causal relationships between variables. Future research can adopt longitudinal data to validate the research model. Furthermore, this study explores the effect of sense of power on employee voice based on power cognition without considering power sources. Factors such as power base or leadership empowerment can affect the formation of sense of power, and different power sources may have different effects on employee voice. Future research can study whether different sources of power have different effects on employee advice.

Conclusion

Our research confirms that employees' voice behavior in an organization is not necessarily determined by their actual power; instead, it can be affected by their sense of power, which also highlights the importance of employees' inner state for their voice behavior. From the perspective of power cognition, we find that sense of power can affect employee voice indirectly via error risk taking and that this effect is moderated by power congruence. We have proposed this perspective to reveal the mechanism underlying the effect of employee voice, and we also hope that organizations can attach importance to employees' sense of power acquisition.

Appendix A: Questionnaire

1. Basic information
Please tick "√" on the corresponding options according to your actual situation
Gender: 0—male;   1—female
Education: 1—college degree or below; 2—bachelor's degree; 3—master's degree or above
Seniority: 1—less than one year; 2—one-three years; 3—three-five years; 4—five years or more
Organizational scale: 1—fewer than 100 employees; 2—100–500 employees; 3—more than 500 employees
2. Questionnaire filling
Please select the most appropriate number on the right side of the following sentence and tick "√" to reflect your actual situation.
1—Disagree strongly; 2—Disagree; 3—Neither agree nor disagree; 4—Agree; 5—Agree strongly

Sense of power In my relationships with others. .

SOP1	I can get people to listen to what I say	1	2	3	4	5
SOP2	My wishes do not carry much weight	1	2	3	4	5
SOP3	I can get others to do what I want	1	2	3	4	5
SOP4	Even if I voice them, my views have little sway	1	2	3	4	5
SOP5	I think I have a great deal of power in the negotiation	1	2	3	4	5
SOP6	My ideas and opinions are often ignored	1	2	3	4	5
SOP7	Even when I try, I am not able to get my way	1	2	3	4	5
SOP8	If I want to, I get to make the decisions	1	2	3	4	5

Error risk taking

ERT1	If one wants to achieve at work, one has to risk making mistakes	1	2	3	4	5
ERT2	It is better to take the risk of making mistakes than to `sit on one's behind	1	2	3	4	5
ERT3	To get on with my work, I gladly put up with things that can go wrong	1	2	3	4	5
ERT4	I'd prefer to err, than to do nothing at all	1	2	3	4	5

Employee voice

EV1	The employee develops and makes recommendations concerning issues that affect the organization	1	2	3	4	5

EV2	The employee speaks up and encourages others in the organization to get involved in issues that affect the organization	1 2 3 4 5
EV3	The employee communicates his/her opinions about work topics to others in the organization even if his/her opinion is different and others in the organization disagree with him/her	1 2 3 4 5
EV4	The employee keeps well informed about topics where his/her opinion might be useful to the organization	1 2 3 4 5
EV5	The employee is actively involved in topics that affect the quality of work life on the organization	1 2 3 4 5
EV6	The employee speaks up in the organization with ideas for new projects or changes in procedures	1 2 3 4 5

Power congruence

1—Very weak; 2—Weak; 3—Neutral; 4—Strong; 5—Very strong

| PC | How much influence each member has on the organization | 1 2 3 4 5 |

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